Meeting Date: September 25, 2025

AGENDA MEMORANDUM

To: Planning Commission

From: Sandy Vossler, Senior Planner, Development Services Department

Title: **The Brickyard Site Development Plan** [31.6 acres, 401 Prairie Hawk Drive]

Executive Summary

Confluence Companies is requesting approval of the Site Development Plan (SDP) for the Brickyard mixed-use development. The site is 21.14 acres located south of the Wolfensberger Road/Prairie Hawk Drive at 401 Prairie Hawk Drive (Attachment A and Figure 1). The proposed site plan includes 384 multi-family dwelling units, a 123-room hotel with conference space, approximately 263,000 square feet of retail, office, restaurant and entertainment space and 5.49 acres of open space.

The proposed SDP meets the Town's Municipal Code, technical criteria and the Brickyard Planned Development Plan and Zoning Regulations, Amendment 1. Staff recommends that Planning Commission recommend approval to Town Council of the Site Development Plan, as proposed.



Figure 1: Vicinity Map

Background

The site of the Brickyard mixed-use development was formerly the location of Acme Brick and was zoned General Industrial – 2 (I-2) within the Citadel Station industrial area. Acme Brick ceased operations in 2019 and the site was vacant until the Confluence Companies purchased it in 2020. Demolition began on the site in 2022.

Existing Conditions and Surrounding Uses

The Industrial Tributary drainage channel is located north of the site. Beyond the channel is the remainder of the Citadel Station I-2 General Industrial area, see Figure 2. Miller's Landing Interchange Overlay Planned Development (IO PD) is located west of the Brickyard, and Castle Meadows IO PD is located to the south. Both are zoned for mixed-used development, with Miller's Landing IO PD excluding residential development. The Brickyard abuts Prairie Hawk Drive and the Burlington Northern Santa Fe Railroad right-of-way (ROW) directly to the east. The future Castle Rock Sport Center is within the Brickyard PD and abuts the southern boundary of the Brickyard mixed-use development.

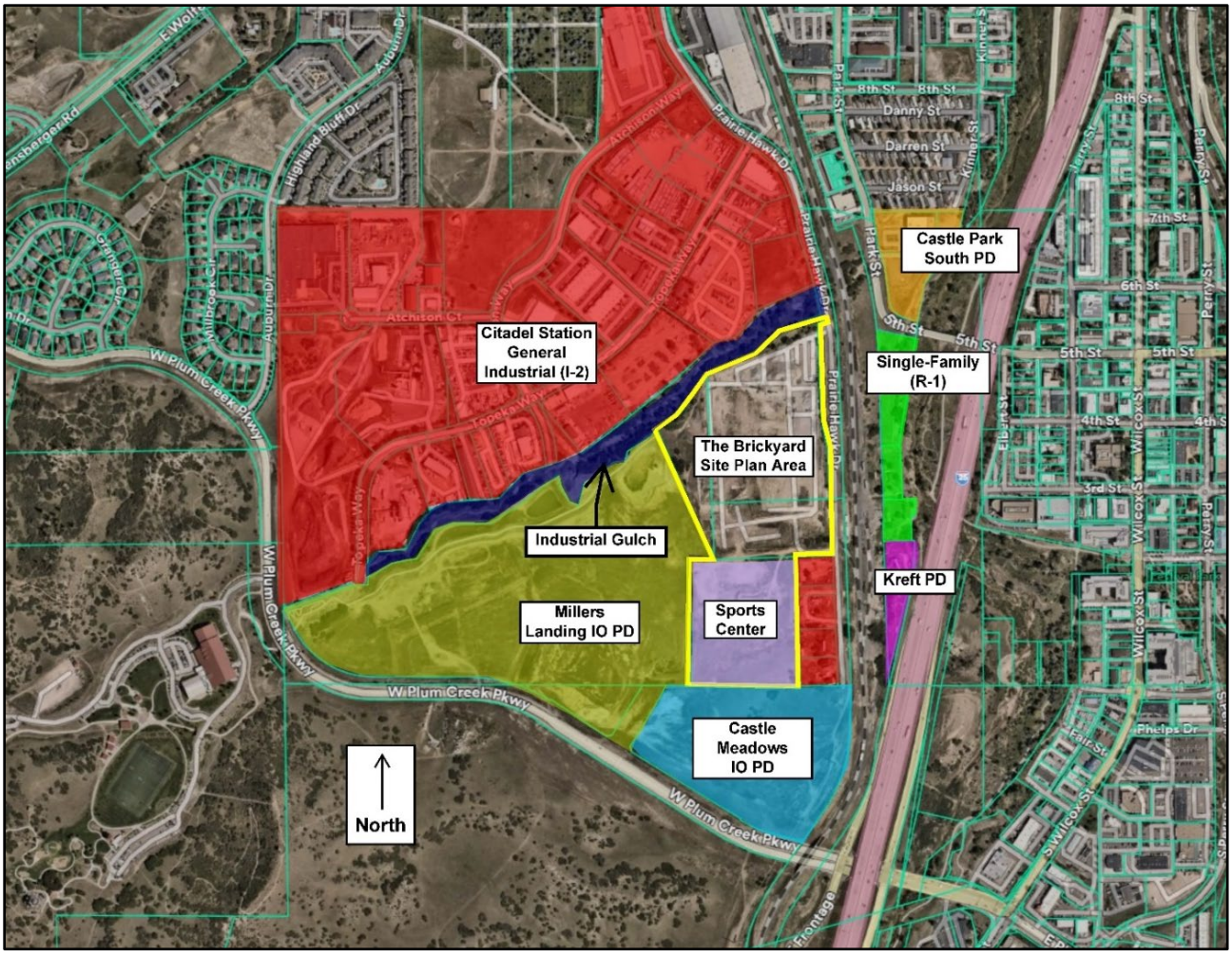


Figure 2: Surrounding Zoning

The site has varied topography with most of the site at 10% slope or less. No geologic hazards were identified on the property. Vegetation on the site is sparse and consists mainly of native grasses, weeds, trees and shrubs. Colorado Parks and Wildlife Division indicates there is no concern with endangered species on the site. Development of the site is not expected to have negative impacts on wildlife in the area or the surrounding environment. No historic structures were found on the site and no known artifacts of historical significance have been found.

Zoning Regulations

The property was annexed to the Town in 1973, and zoned I-2 in 1974. General Industrial zoning allows intensive types of uses, such as asphalt or concrete plants, medical labs, towing, recycling and salvage, storage, and warehouses.

The Brickyard Planned Development Plan and Zoning Regulations (PD Plan) was approved in February 2025. The zoning allows a mix of residential, commercial and entertainment uses. The maximum number of units and square footages allowed by the zoning are reflected in Figure 4.

Discussion

The property consists of approximately 21 acres, generally located at 401 Prairie Hawk Drive, approximately one-half mile south the Wolfensberger Road and Prairie Hawk Drive intersection.

Uses

The proposed Site Development Plan proposes 384 multi-family dwelling units for a gross density of 19 dwelling units per acre (du/ac), a 93,000 square foot (sf) hotel, with a 200 to 300-seat conference center, and approximately 263,000 sf of retail, office, restaurant and entertainment space. Included in the entertainment square footage is a bowling alley of approximately 68,000 sf. The Great Hall is a planned focal gathering building zoned for retail, restaurant and office uses, and as the building elevations show will offer covered outdoor seating. Figure 4 compares the PD Zoning regulations and the proposed Site Development Plan to demonstrate that the SDP is compliant with the zoning.

Site Development Plan

The Brickyard Site Development Plan proposes eight buildings, 1,673 parking spaces and 5.49 acres of open or common space across the 21-acre site (Attachment B and Figure 3). It should be noted that Town facilities on Town property do not go through the site development plan process, therefore the Castle Rock Sports Center is not a part of this site development plan. The development is proposed in three phases. The Phasing Plan is shown on Sheet 7 of the SDP, and the general scope of each phase is summarized below.

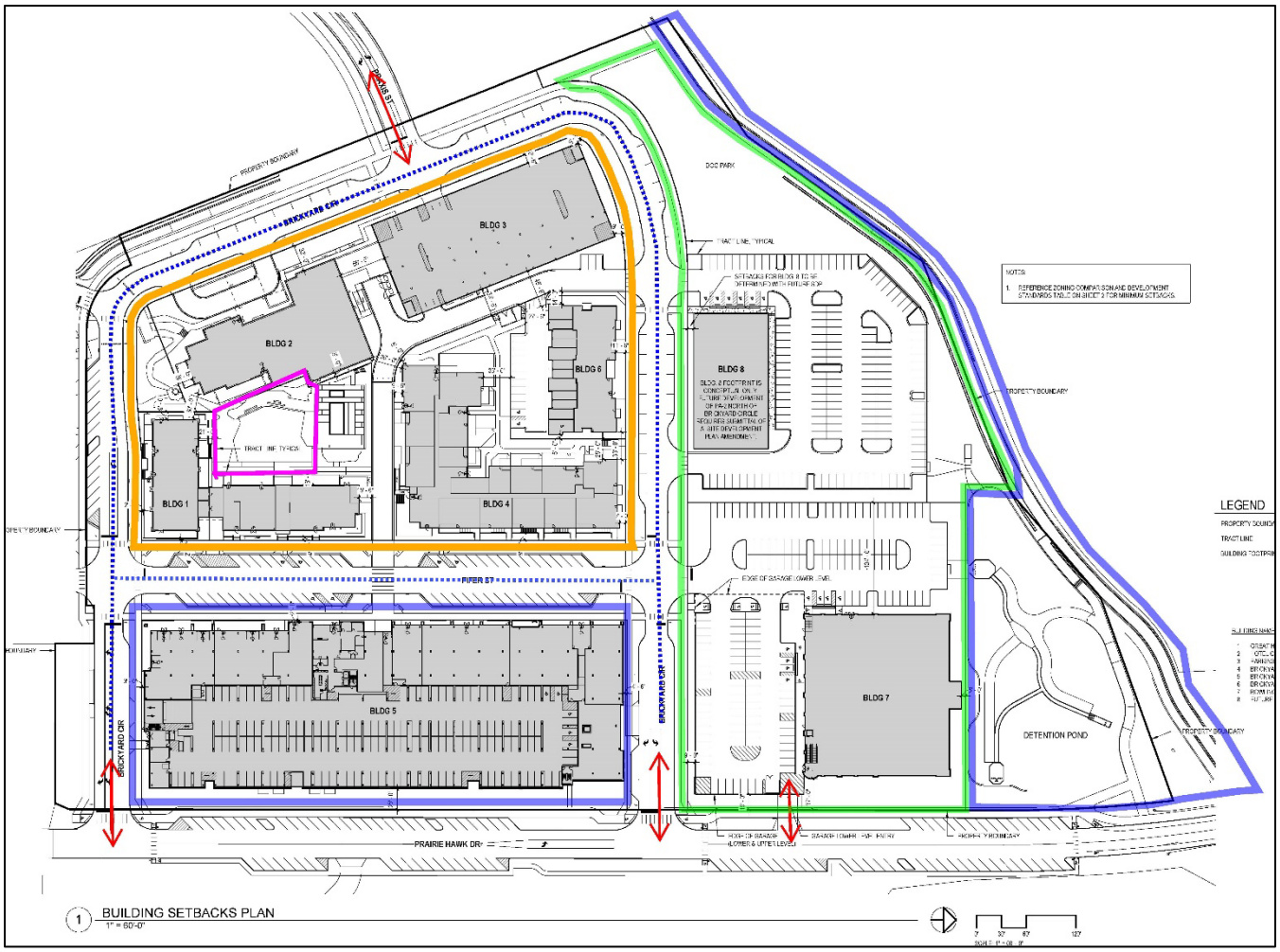


Figure 3: Site and Phasing Plan

Phase 1 A-E (Fig. 3 blue outline)

Phase 1 includes construction of the Brickyard internal roadways and utility infrastructure. Additionally, it also includes construction of the Castle Rock Sports Center and surface parking, construction of the water quality and detention pond, construction of Praxis Street and reconstruction of Prairie Hawk Drive. Channel improvements will include stabilization, extension of pedestrian and bike trails, and grade-separated crossings at the existing Prairie Hawk Drive.

Building number 5 is a mixed-use residential building that will contain 298 multi-family residential units, office, retail and restaurant space. A two-level parking garage is part of the structure and will provide 336 parking spaces, 174 of which will be reserved for residential tenants. The building is located adjacent to Prairie Hawk Drive. The two easterly access points into the development from Prairie Hawk Drive flank the building to the north and south.

Phase 2 (gold outline)

The heart of the development is planned for Phase 2, shad. Building 2 is a 123-room hotel with associated retail, restaurant, conference center, and pool. Brickyard Square (pink outline) is an

open air venue, similar in size to Festival Park. Restaurants with outdoor seating and an open grassy area provides space for the public to enjoy the Square and view its performance stage. Adjacent to the hotel to the north is Building 3, a multi-level parking structure containing 243 parking spaces reserved primarily for the hotel guests.

Building 1 consists of two structures joined by an elevated enclosed pedestrian bridge. Both structures will include a variety of office, retail and restaurant uses. The southern structure is referred to as the Great Hall in the PD Plan, and the northern structure is the Sawtooth building. The Great Hall has a wrap-around covered outdoor seating area activating the adjoining Brickyard Circle South and Fifer Street, and providing visual connection to the Castle Rock Sports Center. Additional seating overlooking Brickyard Square provides connection to the venue events. The Sawtooth building provides residences that front to Fifer Street and offer a raised stoop at the entrance to the units.

Buildings 4 and 6 are residential only buildings fronting to Fifer Street and Brickyard Circle North, respectively. Parking is provided through a combination of surface spaces, attached garages and on-street parking.

Phase 3 (green outline)

Phase 3 includes the entertainment space anticipated as a 60+ lane bowling alley represented as Building 7, additional retail development shown as Building 8, surface parking and a two-level parking structure, a dog park amenity and connections to the trail following the Industrial Tributary channel.

Building 8 is a conceptual footprint for a future user, yet to be determined. A future Site Development Plan will be required at the time Building 8 is proposed. The dog park design will be included in the future Building 8 SDP.

Development Standards

The Brickyard Planned Development Plan and Zoning Regulations establish development standards such as height, maximum units, square footage and setback. Figure 4 provides a comparison between the PD Zoning and the proposed SDP standards showing that the SDP complies with the PD Zoning requirements.

Parking Plan

The Brickyard PD allows that required parking may be met through a combination of on-street and off-street parking spaces that create a pool of available parking spaces that may be used for public and resident parking.

Further the zoning regulations allow that the required number of parking spaces may be calculated by the implementation of a joint use parking plan in compliance with Section 17.54.060 of the Municipal Code (Code). The Code allows that joint use of parking spaces may

be used where the owner or developer can document that two or more separate uses are able to share parking spaces because their respective hours of peak operation do not overlap.

Development Standards Comparison					
	Brickyard PD	PA-1	PA-2	PA-3	PA-4
Max. Dwelling Units	530		86	298	
Gross Density	25 du/ac		19 du/ac		
Max. Bldg. Height	65 to 90 ft	80 ft	55 ft	75 ft	55 ft
Min. Front Setback	Determined with the SDP	0 ft	0 ft	0 ft	0 ft
Min. Side Setback		0 ft	0 ft	0 ft	0 ft
Min. Rear Setback		0 ft	0 ft	0 ft	0 ft
Hotel SF	93,000 sf	93,000 sf			
Conference SF	6,000 sf	6,000 sf			
Great Hall	23,000 sf				23,000 sf
Office	49,000 sf		27,800 sf	21,000 sf	
Retail	7,100 sf		1,600 sf	5,500 sf	
Restaurant	17,000 sf		4,200 sf	12,800 sf	
Entertainment	67,900 sf			67,900 sf	
Total Non-					

Specifically, the Code establishes the following criteria for approval of a joint use of parking plan:

A. An Analysis showing that the peak parking times of the uses occur at different times, the size of each use and the twelve- to twenty-four-hour parking demand characteristics of each use. Daily, weekly and monthly variations in parking demand must also be presented for consideration.

B. Provision that the location and number of parking spaces being shared is large enough for the total peak demands of all uses and that the spaces are conveniently located for all uses.

C. Occupancy factors for the uses to determine the rates and times of utilization of the parking spaces should be considered in the analysis.

In compliance with the Code, a parking analysis was completed and is included as Attachment C. The study assessed the maximum land use intensities and adjusted for peak hours of the various uses, the degree of internal capture, and modes of transportation. The study resulted in parking demand data (number of spaces needed) by the periods of peak demand of the uses.

The three Parking Demand tables on sheet 5 of the SDP represent the periods of peak parking demand in the 1st phase of construction of the development, the 2nd phase of development and at final build out. Each table reflects weekday and weekend parking demand by four time periods in a 24-hour cycle as follows.

- Morning period = 6 am to 12 pm
- Afternoon period = 12 pm to 5 pm
- Evening period = 5 pm to 9 pm
- Overnight period = 9 pm to 6 am

The Parking Summary by Phase Table on sheet 4, and represented in Figure 5, identifies the parking demand by phase and number of parking spaces that will be constructed by phase and cumulatively. The conclusion is that at each phase of development the number of spaces constructed will exceed the number of spaces needed, as identified in the parking study. At buildout the parking demand will require 1,520 parking spaces, and 1,673 parking spaces will be available.

Architectural Standards and Conceptual Renderings

Parking Summary by Phase					
Location	Phase 1	Phase 2	Phase 3	Reserved	Type
CR Sports Center	468			0	Surface
Prairie Hawk Drive	92			0	On-Street
Internal Streets	95			0	On-Street
Building 5	336			174	Prkg Structure
Building 3		243		243	Prkg Structure
Building 6		12		12	Garages
Parking Lot A		15		15	Surface
Building 7			165	0	Prkg Structure
Parking Lot B			89	0	Surface
Parking Lot C			158	0	Surface
Parking Provided by Phase	991	270	412	444	
Demand by Phase	941	286	293		
Cumulative Provided by Phase		1,261	1,673		
Cumulative Demand by Phase		1,227	1,520		

Figure 5: Parking Summary by Phase Table

The Brickyard PD vision seeks to recognize the rugged, craftsman character of the site's past, while incorporating contemporary textures, materials and architectural elements. The zoning regulations establish Design Standards to achieve the objective of this vision.

Buildings and structures will incorporate materials such as brick, stone, pre-cast concrete, architectural metals to project the character of the development and highlight the unique features of each building. Buildings will be oriented and scaled to enhance the pedestrian space and public gathering areas. The use of different building forms and massing, height, roofline, material, color and other architectural elements will differentiate buildings and their uses from each other. Material boards will be available at the public hearing.

Residential/Non-Residential Interface Regulations (Interface)

The Brickyard PD was designed to mix residential and non-residential uses both horizontally and vertically, within the PD. The only portion of the mixed-use development that may be subject to the Interface regulations on the north boundary of the PD where it abuts the Citadel Station industrial uses. If the Building 8 pad develops as residential, then that future SDP will be required to the meet the Interface regulations.

Skyline and Ridgeline Protections

The Skyline Ridgeline Protection Area does impact the Brickyard PD along the western boundary of the development. A portion of the site falls within the Moderate Skyline area that restricts the maximum building height to 25' and a larger portion within the Minor Skyline area that restricts the maximum building height to 35'. The hotel and adjacent parking garage have been setback and oriented as to avoid encroaching into the minor skyline area.

Open Space and Public Land Dedication

The Municipal Code requires that a Planned Development provide a minimum of 20% of the gross acreage as open space, or the Town may accept cash-in-lieu of the open space dedication. The Brickyard PD required 6.3 acres of land to be dedicated as open space. The SDP provides 5.49 acres of open space and common area. The Town has accepted cash-in-lieu or in-kind contributions for the remaining acreage.

The Code also requires dedication of Public Land (PLD) to be used for public recreational facilities, service facilities, etc. The Brickyard PD required a dedication of 12.4 acres for PLD, or cash-in-lieu of the same. A dedication and conveyance of 10.47 acres has been accepted by the Town to be used as the site for the Castle Rock Sports Center. The Town has accepted cash-in-lieu or in-kind contributions for the remaining acreage.

Trails and Public Amenities

The SDP includes a key east/west trail connection along the Industrial Tributary that will connect to the existing trail through Miller's Landing to the Philip S. Miller park and facilities. A grade separated crossing via a pedestrian culvert will be provided where the trail intersects the existing Prairie Hawk Drive. A future extension of the Industrial Tributary trail will eventually connect to the existing Plum Creek Trail east of I-25, enhancing the Town-wide pedestrian and recreational connectivity between Downtown Castle Rock and Philip S. Miller Park.

Brickyard Square (Square), referenced in the Brickyard PD Plan as the Great Lawn, is a centrally located public courtyard between the hotel, the Great Hall and the Sawtooth buildings. Planned restaurants and outdoor seating will be available on the perimeter of the Square. Programming may include movie nights, performances under the shade structure, music events and other functions intended to activate the venue.

Fire

The Brickyard development will be served by Town of Castle Rock Fire, which has capacity to serve the proposed development. Fire has reviewed the proposed fire flows and building sprinkler systems, as well as access for emergency equipment and is satisfied with the site plan as designed.

Traffic Impact Analysis and Mitigation

Staff has reviewed and accepted the Traffic Impact Analysis (TIA) prepared by Harris Kocher Smith traffic consultant, dated August 12, 2025 (Attachment D). As shown on the Site Development Plan, vehicular access will be provided via an internal roadway network that connects to the external transportation system at the following locations:

- Praxis Street is the west access roadway. This two-lane roadway will extend from the west property boundary through the proposed Miller's Landing development, then south intersecting Plum Creek Parkway.

- Brickyard Circle North is the northeast access roadway. This roadway will connect with the existing Prairie Hawk Drive with a full movement intersection, approximately 620 feet south of the northeast property boundary of the Brickyard PD.

- Brickyard Circle South is the southeast access roadway. This roadway will connect with the existing Prairie Hawk Drive with a full movement intersection, approximately 650 feet south of Brickyard Circle North described above.

- A full movement access driveway from Prairie Hawk Drive to the parking garage adjacent to the proposed bowling alley will be located north of Brickyard Circle North.

Additionally, there are off-site roadway improvements, beyond the scope of this SDP, that the developer is required to make to mitigate the impact of the traffic projected to be generated by the proposed Brickyard development by the anticipated build-out date of 2027. Some of those improvements are briefly described below.

- The existing alignment of Prairie Hawk Drive adjacent to the east frontage of the Brickyard development, shall be modified to a two-lane collector roadway, with on-street bicycle lanes and on-street angled parking adjacent to the project site.

- The westbound turn lane from Wolfensberger Road to Prairie Hawk Drive will be lengthened to accommodate increased traffic queuing to turn southbound onto Prairie Hawk Drive.

- The Prairie Hawk Drive/Topeka Way intersection shall be reconfigured to add left turn lanes.

- The Plum Creek Parkway/Praxis Street intersection will be improved to include a traffic control signal and turn lanes

Based on the projected traffic volumes associated with the Brickyard development through anticipated build-out, the intersections summarized above, or studied in the TIA, will remain at acceptable levels of service.

Water Conservation

Staff has reviewed and approved the landscape plan detailed in the Site Development Plan. The implementation of ColoradoScape methods is required. No irrigated turf is permitted on commercial sites. Plant selection meets the Town Landscape regulations for low water use species.

Utilities

Staff has reviewed and accepted the Drainage Report and Utility Report which detail the necessary infrastructure capacities for the delivery, transmission and treatment of water, wastewater, storm sewer and detention for the site. The developer is responsible for the design, construction and connection to all utility infrastructure necessary to serve the demands of the development. Highlights of the improvements are summarized as follows.

- Water Resources - This property is located within the Implied Consent area per Ordinance 97-17 and pursuant to the implied consent provision of Municipal Code, Section 13.16.010. The owner has conveyed all groundwater rights to the Town and therefore is shall be deemed to have satisfied the requirements under Town ordinances and regulations for the provision of water rights as a condition to development approvals, irrespective of the actual water demand.

- Water Delivery Systems – The site will be served by the Town's blue pressure zone. The developer must design, construct and upsize, if necessary, the water delivery infrastructure to serve the water demand of the development. No additional water supply facilities are necessary to serve the development.

- Wastewater Collection System – Onsite improvements will consist of 8-inch PVC and 12-inch PVC sanitary lines within the proposed public right-of-way and connecting to the existing Prairie Hawk Drive sewer main, and various wastewater service connections to the planned commercial, residential, and recreation center areas. The development is also responsible for the upsizing of the existing 12-inch sanitary main in Prairie Hawk Drive up to 24-inches from the south end of the site to Wolfensberger Road. The developer is also required to contribute to the downstream Malibu Sewer Upsize project.
  There are no proposed wastewater facilities such as lift stations, force mains, or pretreatment facilities proposed for this development. It is anticipated that there will be future grease and sand/oil interceptors for restaurant/commercial use and in the parking garages, but exact locations will be determined during the Construction Document phases of the project for each plan area as the design develops for each individual basin.

- Stormwater Management – Onsite improvements will direct surface flows to roadways and storm sewers that will convey flow toward to northeast where the onsite detention pond is located. The detention pond outlets to the Industrial Tributary Channel. The roadways are designed and graded to strategically convey flow in large storm events. Runoff from the site

will be captured in roadways and routed to proposed inlets, conveyed in proposed pipes, detained in the proposed full spectrum extended detention basin (Pond), and released at or below historic rates.

The property owner is the party responsible for operation and maintenance of the full spectrum [water quality] detention pond facility. Routine maintenance procedures include removal of debris and sediment, trash rack clearing, mowing, and noxious weed control. Non-routine restorative maintenance activities include repairs and replacement of structures, and other improvements necessary to maintain functionality of the system.

The proposed onsite dog park will also be maintained by the property owner for contamination mitigation to minimize any contaminated runoff into the adjacent Industrial Tributary.

- Floodplain Modification Study – A floodplain modification study has been reviewed and accepted by the Town's Stormwater Manager. The study assessed the impacts to the Industrial Tributary floodplain of the proposed Prairie Hawk Drive culvert crossing, Tributary trail and trail culvert. The developer will be required to complete the 10'x12' concrete box culvert crossing of Prairie Hawk Drive, consistent with the Town's Industrial Watershed Master Plan. The project will result in a significant improvement to the area storm drainage system and will not cause an adverse impact to adjacent or downstream properties.

Notification and Outreach

Public Notice

Public hearing notice sign(s) were posted on the property and written notice letters were sent to property owners and Homeowner Associations (HOA) within 500 feet of the property, at least 15 days prior to the public hearings.

Town staff published notice of the Planning Commission public hearing on the Town's website and provided information about the proposal on the Town's *Development Activity* interactive map.

Neighborhood Meetings

The applicant held three formal neighborhood meetings for the purposes of presenting the proposed Site Development Plan to, and obtaining feedback from, the surrounding neighbors. All neighborhood meetings were held in a hybrid format. See Attachment E.

The first neighborhood meeting was held June 12, 2024 and was attended by eight people in addition to the developer's team and Town staff. The second meeting was held on November 20, 2024 and was attended by five people. The third and final meeting was held on September 17, 2025 and was attended by four people.

At each meeting a member of Confluence team presented the proposed site plan and revisions made to the plan since the previous meeting. Onsite and off-site improvements were

discussed and programming of the outdoor venue adjacent to the hotel was described. The developer displayed renderings of the buildings and gathering space design.

Attendees asked about the proposed density, programming of the public gathering spaces, improvements to the existing Prairie Hawk Drive, the size of the hotel, the trail extension, improvements to the Industrial Tributary, building height, parking, and the development schedule. Attendees also asked questions about the Castle Rock Sports Center, the amenities planned for the Sports Center and the construction schedule and offered suggestions for art, programming and tenant space.

Concerns were expressed about the proximity of the Sports Center to the MAC, sufficiency of parking based on a perception that parking in the Downtown is a problem, noise impacts of the railroad traffic, and height of the buildings interfering with views.

External Referrals

Requests for external referral requests were sent to local service providers and Douglas County agencies, as well as to the Colorado Department of Transportation (CDOT), Colorado Department of Natural Resources, and Burlington Northern/Santa Fe Railroad. The applicant has worked closely with the Burlington Northern/Santa Fe Railroad, Xcel Energy, CORE Electric and the Colorado Department of Transportation to address their comments. Douglas County Planning and Engineering did not have comments to provide. Street names and addressing has been coordinated through Douglas County Addressing. There are no outstanding comments remaining.

Analysis

The following staff analysis takes into account the representations made in the rezoning application, technical reports and other documents submitted to the Town to date.

SDP Review and Approval Criteria and Analysis 17.38.040

A. **Community Vision/Land Use Entitlements.**
   1. Generally, conforms to the Town's guiding documents that include, but are not limited to the Town Vision, Comprehensive Master Plans, Sub Area Plans, Design Guidelines, Corridor Plans and any other guiding document so long as the application of such document does not restrict the project's entitled use(s) and density.
   2. Complies with existing Intergovernmental Agreements applicable to the development proposed.
   3. Complies with any applicable Zoning Overlay regulations, such as the Skyline/Ridgeline Regulations.
   4. Complies with the approved Planned Development Plan and Zoning Regulations.
   5. Conforms to the Town's architectural goals by proposing architectural details that incorporate the use of high quality materials in a unique and varied design, while eliminating monolithic expanses of walls and rooflines by using varying planes and architectural projections to ensure a complete 360-degree architectural design.
   6. Complies with all other relevant requirements of the Castle Rock Municipal Code (CRMC).

Analysis: The proposed Site Development Plan meets this criterion. It conforms to the Town's Vision and Comprehensive Master Plan that envision this property as a mixed-use development with multifamily units and retail, office, restaurant, entertainment and public recreational and open space opportunities. The improvements to existing Prairie Hawk Drive, and the new roadway connecting Prairie Hawk Drive to Plum Creek Parkway complies with the Town's planned roadway network. The trail improvements within the Industrial Tributary will serve to advance the Town's trail system and further the goal to connect the MAC with the Downtown.

The site plan complies with the Skyline/Ridgeline requirements as previously discussed. A comparison of the Brickyard PD development standards and the proposed standards of the SDP has been provided to demonstrate compliance with the PD Plan and Zoning regulations, including the Brickyard Design Standards for design, materials, etc.

B. **Site Layout.**
1. Conforms to Chapter 17.50 Residential/Non-Residential Interface (Interface) of the CRMC.
2. Site design shall be designed to maintain pedestrian and vehicle safety, provide for adequate fire safety, and mitigate impacts upon adjacent properties by ensuring all vehicle, fire and mitigation regulations contained within the CRMC, including technical criteria, have been met.
3. Provides adequate parking, on-site circulation and loading in accordance with Town regulations.
4. Provides appropriate screening and/or enclosure of outdoor storage of merchandise/materials, loading areas, trash receptacles, mechanical units, site utility equipment and building mounted utility hardware.
5. Provides adequate site design to protect major environmental characteristics that would include unique topographic features and significant vegetation where possible.

Analysis: The proposed Site Development Plan meets this criterion. This mixed-use development plan intentionally mixes residential and commercial uses, and provides pedestrian sidewalk connections throughout. Brickyard Circle and Fifer Street provide efficient movement of traffic within the project with connections to roadways outside of the development. Adequate parking is being provided through the application of the Joint Use of Parking regulations. Property screening of mechanical units and trash enclosures has been provided. Views of the Rock have been preserved from numerous buildings and locations within the development. Interface requirements have been met where applicable. The floodplain has been evaluated and proper channel improvements will be made.

C. **Circulation and Connectivity.**
1. Complies with all CRMC and technical criteria associated with circulation and connectivity.
2. Complies with all Fire regulations associated with land development.
3. Provides for pedestrian and bicycle traffic in a safe and convenient manner.
4. Provides for a high level of pedestrian connectivity between neighborhoods, schools, trails/open space and commercial areas.

Analysis: The proposed Site Development Plan meets this criterion. Public Works has analyzed the traffic generation, intersection spacing, street capacities and other transportation elements studied in the TIA. Onsite and off-site roadway improvements summarized earlier will provide a properly functioning circulation system. The site plan depicts key pedestrian street crossings that are supported by Public Works.

Castle Rock Fire has assessed the adequacy of the three access points and internal circulation patterns relative emergency response and equipment access. Fire has also assessed required fire flows and building sprinkler systems and are satisfied with the SDP from a health and safety perspective.

The Parks Department has assessed the necessary trail improvement in the Industrial Tributary, as well as the grade-separated trail crossing at Prairie Hawk Drive and are satisfied with the SDP design.

D. **Services Phasing and Off-site Impact.**
   1. Complies with any phasing requirements associated with the approved zoning for the property. Provides phased improvements in a logical and efficient manner.
   2. Adequate water resources have been conveyed or purchased. Existing or proposed water and wastewater systems can support the proposed development pattern, uses and density.
   3. Existing or proposed stormwater systems can support the development and comply with applicable regulations.
   4. Provides adequate consideration for the future extension of streets and utilities to adjacent properties.
   5. Identifies and appropriately provides on-site and off-site public improvements to mitigate traffic impacts as required by the CRMC and technical criteria.

Analysis: The proposed Site Development Plan meets this criterion. As detailed earlier in this report, Castle Rock Water has evaluated the proposed utility and drainage infrastructures necessary to provide water, stormwater and wastewater service for the development and are satisfied that the proposal addresses the onsite and offsite infrastructure locations. This property is within the Town's Implied Consent area and the owner has conveyed all groundwater rights beneath the property to the Town. The Phasing plan proposes a logical and efficient development pattern. The construction of Praxis Street provides a critical roadway connection.

E. **Open Space, Public Lands and Recreation Amenities.**
   1. Provides adequate trail systems in terms of internal circulation and appropriate external connections deemed necessary by the Town to achieve connectivity goals.
   2. Ensures functional and accessible open space, consistent with the overall open space plan for development and preserves significant natural features.
   3. Ensures appropriate buffering, utilizing open space and/or setbacks to lessen any
   4. Identified negative impacts.

Analysis: The proposed Site Development Plan meets this criterion. As described in the body of this report the required open space and PLD dedications have been addressed, trail

extensions have been identified, drainage channel improvements are identified and internal and external connections are provided.

Budget Impact

The site has remained dormant for several years. Approval of Site Development Plan is the next step in the redevelopment of the property that will include commercial uses to contribute to the Town's tax base. Fees associated with development review, DA obligations, and other impact fees will be collected by the Town.

Findings

All staff review and external referral comments have been addressed. Town staff finds the proposed Brickyard Site Development Plan.

- Generally, conforms with the objectives of the Town Vision and the Comprehensive Master Plan,
- Meets the requirements of the Brickyard Planned Development Plan and Zoning Regulations, and
- Meets the review and approval criteria of the Municipal Code, Chapter 17.38 Site Development Plan.

Recommendation

Based on the analysis detailed in this staff report and the findings noted above, staff recommends that the Planning Commission recommend approval of the Brickyard Site Development Plan to Town Council, as proposed.

Proposed Motion

Option 1: Approval

"I move to recommend approval of the Brickyard Site Development Plan to Town Council."

Option 2: Approval with Conditions

"I move to recommend approval of the Brickyard Site Development Plan to Town Council, with the following conditions:" (list conditions)

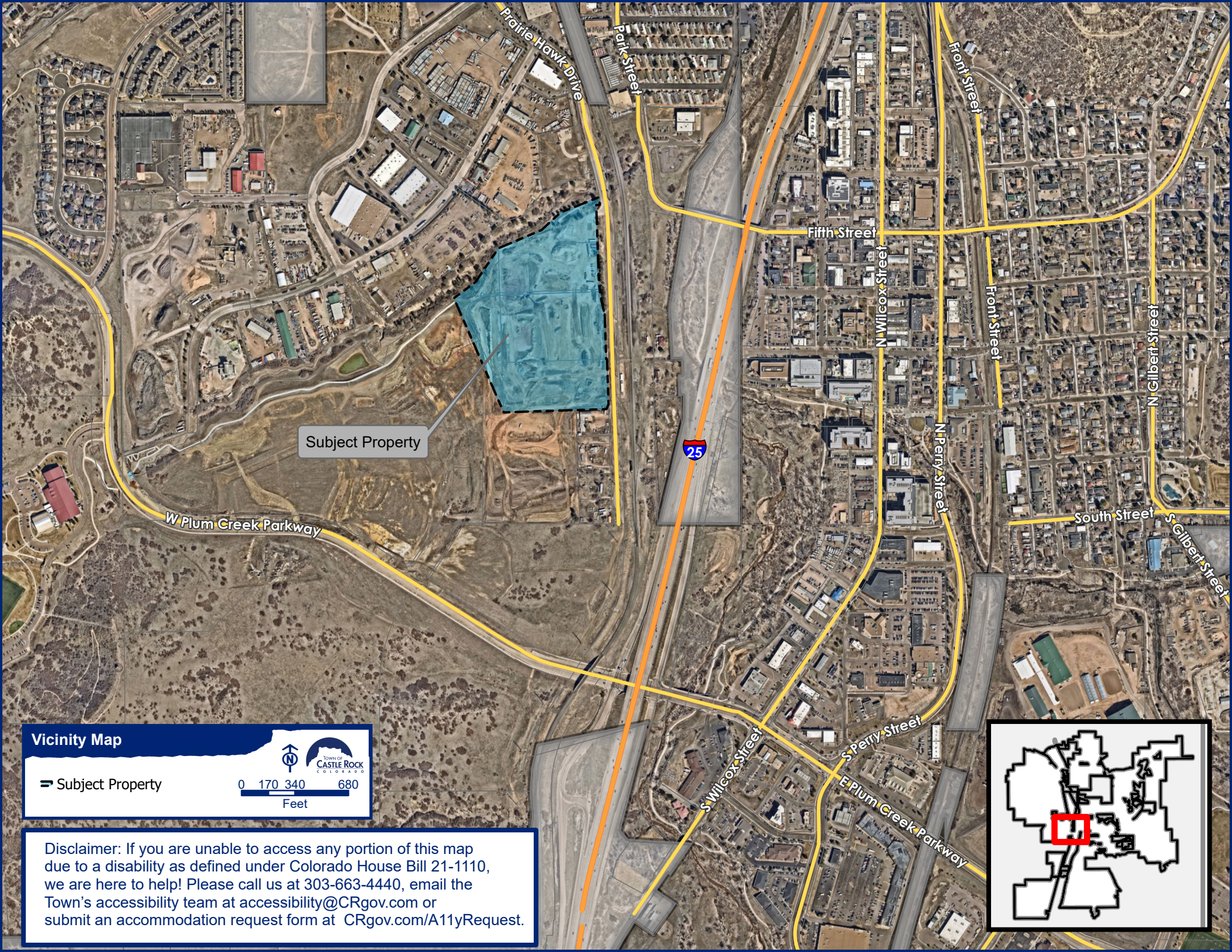
Option 3: Continue item to next hearing (need more information to make decision)

"I move to continue this item to the Planning Commission meeting on [date], at [time]."

Attachments

Attachment A: Vicinity Map
Attachment B: Site Development Plan
Attachment C: Parking Analysis

Attachment D: Traffic Impact Report
Attachment E: Neighborhood Meeting Summaries



Vicinity Map

Subject Property

0 170 340 680
Feet

Disclaimer: If you are unable to access any portion of this map due to a disability as defined under Colorado House Bill 21-1110, we are here to help! Please call us at 303-663-4440, email the Town's accessibility team at accessibility@CRgov.com or submit an accommodation request form at CRgov.com/A11yRequest.

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

LEGAL DESCRIPTION:

TRACT A AND TRACT E, BLOCK 1, BRICKYARD FILING NO. 1 RECORDED AT RECEPTION NO. 2025033598, TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO.

A PARCEL OF LAND BEING A PORTION OF PRAIRIE HAWK DRIVE RIGHT OF WAY DEDICATED AS SANTE FE BOULEVARD BY THE PLAT OF CITADEL STATION FILING NO. 2 RECORDED AT RECEPTION NO. 305817, SITUATED IN THE NORTHWEST QUARTER OF SECTION 11, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 11;

THENCE SOUTH 32°33'14" EAST, A DISTANCE OF 767.27 FEET TO A NORTHERLY CORNER OF TRACT A, BLOCK 1, BRICKYARD FILING NO. 1 RECORDED AT RECEPTION NO. 2025033598, BEING THE POINT OF BEGINNING;

THENCE NORTH 88°03'18" EAST ALONG A NORTHERLY LINE OF SAID TRACT A, A DISTANCE OF 23.07 FEET TO AN EASTERLY CORNER OF SAID TRACT A AND A POINT OF NON-TANGENT CURVATURE;

THENCE ALONG THE ARC OF SAID CURVE TO THE RIGHT AN ARC LENGTH OF 155.57 FEET, SAID CURVE HAVING A RADIUS OF 1,725.58 FEET, A CENTRAL ANGLE OF 05°09'56", AND A CHORD WHICH BEARS SOUTH 04°29'56" EAST A CHORD DISTANCE OF 155.52 FEET;

THENCE SOUTH 01°56'42" EAST, A DISTANCE OF 543.12 FEET TO A POINT OF NON-TANGENT CURVATURE AND A POINT ON THE EAST LINE OF SAID TRACT A;

THENCE ALONG SAID EAST LINE THE FOLLOWING TWO (2) COURSES:

1) ALONG THE ARC OF SAID CURVE TO THE RIGHT LENGTH OF 255.15 FEET, SAID CURVE HAVING A RADIUS OF 1,080.00 FEET, A CENTRAL ANGLE OF 13°32'10", AND A CHORD WHICH BEARS NORTH 08°42'47" WEST A CHORD DISTANCE OF 254.56 FEET;
2) NORTH 01°56'42" WET, A DISTANCE OF 445.70 FEET TO THE POINT OF BEGINNING.

SAID PARCEL CONTAINS 18,084 SQUARE FEET OR 0.42 ACRES, MORE OR LESS.

PURPOSE STATEMENT:

A SITE DEVELOPMENT PLAN FOR A MIXED-USE DEVELOPMENT LOCATED AT THE VACANT PARCELS OCCUPIED BY THE ACME BRICK COMPANY ADJACENT TO I-25 AND DIRECTLY WEST OF DOWNTOWN CASTLE ROCK. THIS SUBMISSION IS PART OF THE OVERALL 31.61-ACRE BRICKYARD PD SITE; AND INCLUDES INFRASTRUCTURE, LANDSCAPING, MULTIFAMILY RESIDENTIAL, HOTEL, RESTAURANT, OFFICE, RETAIL, ENTERTAINMENT, AND CONFERENCE VENUE. APPROXIMATELY 400 MULTIFAMILY DWELLING UNITS ARE PART OF THE DEVELOPMENT.

BASIS OF BEARINGS:

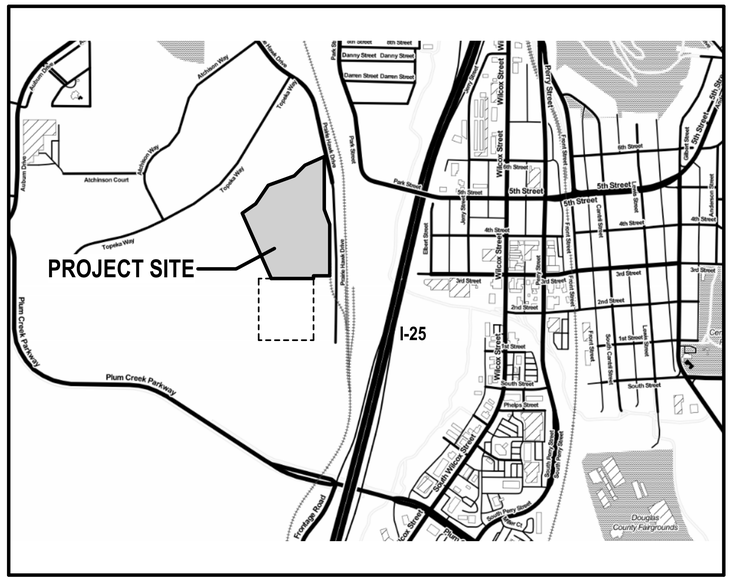
BEARINGS ARE BASED ON THE WEST LINE OF THE NORTHWEST QUARTER OF SECTION 11, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, BEING MONUMENTED AT THE NORTHWEST CORNER BY A #6 REBAR WITH A 2.5" ALUM. CAP, STAMPED: PLS 6935, AND BEING MONUMENTED AT THE WEST QUARTER CORNER BY A 1" STEEL PIPE WITH A 2" STEEL CAP, STAMPED: PLS 6935, BEARING NORTH 00°25'11" WEST, AS SHOWN ON THE PLAT OF BRICKYARD FILING NO. 1.

BENCHMARK:

BENCHMARK IS NGS POINT G 23, BEING A STANDARD BENCHMARK DISK IN TOP OF CONCRETE POST, ELEVATION = 6231.61 NAVD88

WATER RIGHTS DEDICATION AGREEMENT:

THIS PROPERTY IS LOCATED WITHIN THE IMPLIED CONSENT AREA PER ORDINANCE 91-17 AND PURSUANT TO THE IMPLIED CONSENT PROVISION OF MUNICIPAL CODE, SECTION 13.16.010. WATER RIGHTS WERE DEDICATED TO THE TOWN VIA QUIT CLAIM DEED CONCURRENT WITH THE RECORDING OF THE DEVELOPMENT AGREEMENT.



VICINITY MAP

1" = 400' - 0"
0' 200' 400' 800'

APPROVED VARIANCES		
TCV#:	APPROVAL DATE:	PURPOSE / DESCRIPTION:
TCV25-0018	5/16/2025	ORIFICE DIAMETER VARIANCE
TCV24-0024	3/7/2025	MAXIMUM INTERSECTION APPROACH GRADE VARIANCE
TCV24-0025	3/3/2025	MINIMUM CENTERLINE RADIUS VARIANCE
TCV25-0027	7/10/2025	JUNCTION STRUCTURE AND PIPE CROWN VARIANCE
TCV25-0028	7/10/2025	INLET CAPTURE
TCV25-0030	7/10/2025	TRAIL CLEARANCE TO STORM PIPE VARIANCE
TCV25-0031	7/10/2025	FOOTER AND WALL BELOW EURV VARIANCE
TCV23-0042	7/8/2024	ACCESS POINT DISTANCE AT SPORTS CENTER VARIANCE
TCV24-0051	1/6/2025	POND RETAINING WALLS VARIANCE
TCV24-0058	4/10/2025	IRRIGATION LOT LINE VARIANCE
TCV24-0060	8/13/2025	WATER STANDARDS VARIANCE

TOWN OF CASTLE ROCK OWNERSHIP:

THE UNDERSIGNED ARE ALL OF THE OWNERS OF CERTAIN LANDS IN THE TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS AND STATE OF COLORADO DESCRIBED HEREIN.

TOWN OF CASTLE ROCK, A MUNICIPAL CORPORATION

BY _____
MAYOR

ATTEST:

_____
TOWN CLERK

SIGNED THIS ____ DAY OF _____, 2025

NOTARY BLOCK

SUBSCRIBED AND SWORN BEFORE ME THIS ____ DAY OF _____, 2025

BY _____ AS MAYOR AND BY _____ AS TOWN CLERK.

WITNESS MY HAND AND OFFICIAL SEAL

_____
NOTARY PUBLIC

MY COMMISSION EXPIRES: _____

SDP SHEET INDEX		SDP SHEET INDEX	
Sheet Number	Sheet Name	Sheet Number	Sheet Name
SHEET 1 OF 62	COVER SHEET	SHEET 32 OF 62	LANDSCAPE PLAN
SHEET 2 OF 62	PROJECT DATA & GENERAL NOTES	SHEET 33 OF 62	LANDSCAPE PLAN
SHEET 3 OF 62	BUILDING SETBACKS PLAN	SHEET 34 OF 62	LANDSCAPE PLAN
SHEET 4 OF 62	PARKING ALLOCATION PLAN & DATA	SHEET 35 OF 62	LANDSCAPE REQUIREMENTS
SHEET 5 OF 62	PARKING DEMAND STUDY CHART	SHEET 36 OF 62	LANDSCAPE NOTES & ELEVATIONS
SHEET 6 OF 62	OVERALL SITE PLAN	SHEET 37 OF 62	LANDSCAPE NOTES & ELEVATIONS
SHEET 7 OF 62	PHASING PLAN	SHEET 38 OF 62	IRRIGATION PLAN INDEX
SHEET 8 OF 62	TRACT PLAN	SHEET 39 OF 62	IRRIGATION PLAN
SHEET 9 OF 62	SITE PLAN INDEX	SHEET 40 OF 62	IRRIGATION PLAN
SHEET 10 OF 62	SITE PLAN	SHEET 41 OF 62	IRRIGATION PLAN
SHEET 11 OF 62	SITE PLAN	SHEET 42 OF 62	IRRIGATION PLAN
SHEET 12 OF 62	SITE PLAN	SHEET 43 OF 62	IRRIGATION PLAN
SHEET 13 OF 62	SITE PLAN	SHEET 44 OF 62	BUILDING 1 EXTERIOR ELEVATIONS
SHEET 14 OF 62	TYPICAL STREET SECTIONS	SHEET 45 OF 62	BUILDING 1 EXTERIOR ELEVATIONS
SHEET 15 OF 62	OVERALL GRADING PLAN	SHEET 46 OF 62	BUILDING 2 EXTERIOR ELEVATIONS
SHEET 16 OF 62	GENERAL GRADING PLAN INDEX	SHEET 47 OF 62	BUILDING 2 EXTERIOR ELEVATIONS
SHEET 17 OF 62	GENERAL GRADING PLAN	SHEET 48 OF 62	BUILDING 3 EXTERIOR ELEVATIONS
SHEET 18 OF 62	GENERAL GRADING PLAN	SHEET 49 OF 62	BUILDING 4 EXTERIOR ELEVATIONS
SHEET 19 OF 62	GENERAL GRADING PLAN	SHEET 50 OF 62	BUILDING 4 EXTERIOR ELEVATIONS
SHEET 20 OF 62	GENERAL GRADING PLAN	SHEET 51 OF 62	BUILDING 5 EXTERIOR ELEVATIONS
SHEET 21 OF 62	OVERALL UTILITY PLAN	SHEET 52 OF 62	BUILDING 5 EXTERIOR ELEVATIONS
SHEET 22 OF 62	GENERAL UTILITY PLAN INDEX	SHEET 53 OF 62	BUILDING 5 EXTERIOR ELEVATIONS
SHEET 23 OF 62	GENERAL UTILITY PLAN	SHEET 54 OF 62	BUILDING 5 EXTERIOR ELEVATIONS
SHEET 24 OF 62	GENERAL UTILITY PLAN	SHEET 55 OF 62	BUILDING 5 EXTERIOR ELEVATIONS
SHEET 25 OF 62	GENERAL UTILITY PLAN	SHEET 56 OF 62	BUILDING 6 EXTERIOR ELEVATIONS
SHEET 26 OF 62	GENERAL UTILITY PLAN	SHEET 57 OF 62	BUILDING 7 EXTERIOR ELEVATIONS
SHEET 27 OF 62	TREE PRESERVATION PLAN	SHEET 58 OF 62	BUILDING 7 EXTERIOR ELEVATIONS
SHEET 28 OF 62	TREE PRESERVATION PLAN	SHEET 59 OF 62	OVERALL SITE LIGHTING PLAN
SHEET 29 OF 62	OVERALL LANDSCAPE PLAN	SHEET 60 OF 62	SITE LIGHTING DETAILS
SHEET 30 OF 62	LANDSCAPE PLAN	SHEET 61 OF 62	SITE LIGHTING DETAILS
SHEET 31 OF 62	LANDSCAPE PLAN	SHEET 62 OF 62	SITE LIGHTING DETAILS

SURVEYOR'S CERTIFICATE:

I, AARON MURPHY, A REGISTERED LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THE SURVEY AND LEGAL DESCRIPTION PRESENTED IN THIS PLANNED DEVELOPMENT PLAN WAS MADE UNDER MY SUPERVISION AND THE MONUMENTS SHOWN THEREON ACTUALLY EXIST AND THIS PLANNED DEVELOPMENT PLAN ACCURATELY REPRESENTS THAT SURVEY.

CO PLS#38162 _____
SURVEYOR DATE

OWNERSHIP CERTIFICATE:

THE UNDERSIGNED ARE ALL OF THE OWNERS OF CERTAIN LANDS IN THE TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS AND STATE OF COLORADO DESCRIBED HEREIN.

_____
(CD-ACME, LLC, A COLORADO LIMITED LIABILITY COMPANY)

SIGNED THIS ____ DAY OF _____, 2025 BY ANTHONY DESIMONE AS OF CD-ACME, LLC

NOTARY BLOCK

SUBSCRIBED AND SWORN BEFORE ME THIS ____ DAY OF _____, 2025 BY ANTHONY DESIMONE

WITNESS MY HAND AND OFFICIAL SEAL.

_____
NOTARY PUBLIC

MY COMMISSION EXPIRES: _____

CIVIL ENGINEER CERTIFICATE:

I, JOHN O'ROURKE, BEING A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF COLORADO, HEREBY ATTEST THAT ALL GRADING, UTILITY AND DRAINAGE IMPROVEMENTS IDENTIFIED ON THIS SITE DEVELOPMENT PLAN HAVE BEEN DESIGNATED AND ENGINEERED IN CONFORMANCE WITH ALL TOWN OF CASTLE ROCK PUBLIC WORKS CONSTRUCTION STANDARDS.

_____ _____
REGISTERED PROFESSIONAL ENGINEER DATE

PE 43327
PE REG #

LIENHOLDER SUBORDINATION CERTIFICATE:

THE UNDERSIGNED ARE ALL THE MORTGAGES AND LIENHOLDERS OF CERTAIN LANDS IN THE TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS AND STATE OF COLORADO DESCRIBED HEREON. THE UNDERSIGNED BENEFICIARY OF THE LIEN CREATED BY THE INSTRUMENT RECORDED DECEMBER 16, 2020 AT RECEPTION NO. 2020124739; MODIFICATION RECORDED DECEMBER 19, 2022 AT RECEPTION NO. 2022077403; MODIFICATION RECORDED ON DECEMBER 20, 2023 AT RECEPTION NO. 202305871; AND RECORDED OCTOBER 7, 2024 AT RECEPTION NO. 2024042755; DOUGLAS COUNTY, COLORADO, SUBORDINATES THE SUBJECT LIEN TO THE TERMS, CONDITIONS AND RESTRICTIONS OF THIS DOCUMENT.

_____
(FIRSTBANK)

SIGNED THIS ____ DAY OF _____, 2025

NOTARY BLOCK

SUBSCRIBE AND SWORN TO BEFORE ME THIS ____ DAY OF _____, 2025 BY _____

WITNESS MY HAND AND OFFICIAL SEAL.

_____
NOTARY PUBLIC

MY COMMISSION EXPIRES: _____

TITLE CERTIFICATION:

I, _____, AN AUTHORIZED REPRESENTATIVE OF LAND TITLE GUARANTEE COMPANY, A TITLE INSURANCE COMPANY LICENSED TO DO BUSINESS IN THE STATE OF COLORADO, HAVE MADE AN EXAMINATION OF THE PUBLIC RECORDS AND STATE THAT ALL OWNERS, MORTGAGEES AND LIENHOLDERS OF THE PROPERTY ARE LISTED IN THE CERTIFICATE OF OWNERSHIP AND LIENHOLDER SUBORDINATION CERTIFICATE.

_____
AUTHORIZED REPRESENTATIVE

LAND TITLE GUARANTEE COMPANY
TITLE COMPANY

SIGNED THIS DAY ____ OF _____, 2025

NOTARY BLOCK

SUBSCRIBED AND SWORN BEFORE ME THIS ____ DAY OF _____, 2025 BY _____

AS AUTHORIZED REPRESENTATIVE OF _____

WITNESS MY HAND AND OFFICIAL SEAL.

_____
NOTARY PUBLIC

MY COMMISSION EXPIRES: _____

PLANNING COMMISSION RECOMMENDATION:

THIS SITE DEVELOPMENT PLAN WAS RECOMMENDED FOR APPROVAL BY THE PLANNING COMMISSION OF THE TOWN OF CASTLE ROCK, COLORADO, ON THE ____ DAY OF _____ 2025.

_____ _____
CHAIR DATE

ATTEST:

_____ _____
DIRECTOR OF DEVELOPMENT SERVICES DATE

TOWN COUNCIL APPROVAL:

THIS SITE DEVELOPMENT PLAN WAS APPROVED BY THE TOWN COUNCIL OF THE TOWN OF CASTLE ROCK, COLORADO, ON THE ____ DAY OF _____, 2025.

_____ _____
MAYOR DATE

ATTEST:

_____ _____
TOWN CLERK DATE

DEVELOPER:
CD-ACME, LLC
430 INDIANA STREET, SUITE 200
GOLDEN, CO 80401
CONTACT: ANTHONY DeSIMONE
PHONE: 303.643.5799
EMAIL: tony@confluenceco.com

MASTER PLAN:
CRAINE ARCHITECTURE
2490 WELTON STREET
DENVER, CO 80205
CONTACT: FONG LEE
PHONE: 720.457.2012
EMAIL: fong@crainearch.com

CIVIL ENGINEER:
HARRIS KOCHER SMITH
1120 LINCOLN STREET, SUITE 1000
DENVER, CO 80203
CONTACT: JOHN O'ROURKE
PHONE: 303.513.0277
EMAIL: jorourke@hksegn.com

ARCHITECT:
STUDIO 646 ARCHITECTURE
301 COMMERCIAL RD SUITE B
GOLDEN, CO 80401
CONTACT: ERIC BLASE
PHONE: 303.284.1276
EMAIL: Eblase@646arch.com

CRAINE ARCHITECTURE
2490 WELTON STREET
DENVER, CO 80205
CONTACT: FONG LEE
PHONE: 720.457.2012
EMAIL: fong@crainearch.com

HORVAT ARCHITECTS
3210 S. BIRCH STREET
DENVER, CO 80222
CONTACT: DAN HORVAT
PHONE: 303.523.3030
EMAIL: dan@horvatarch.com

LANDSCAPE ARCHITECT:
BACK 40 LANDSCAPE ARCHITECTURE
1510 YORK STREET, SUITE 302
DENVER, CO 80206
CONTACT: NATHAN KROHN
PHONE: 402.841.2858
EMAIL: nathan@back40la.com

PHOTOMETRIC:
GIVEN & ASSOCIATES, INC.
735 S. XENON CT., SUITE 201
LAKEWOOD, CO 80228
CONTACT: JON WAGNER
PHONE: 303.716.1270
EMAIL: jonw@givenandassociates.com

LIENHOLDER/MORTGAGEE:
FIRST BANK
12345 WEST COLFAX AVE
LAKEWOOD, CO 80215
CONTACT:
PHONE:
EMAIL:

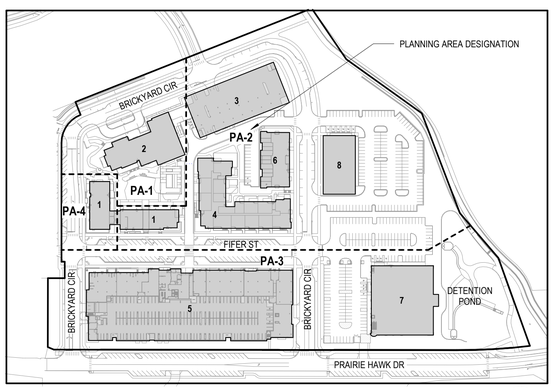
COVER SHEET
SHEET 1 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

SITE DEVELOPMENT PLAN GENERAL NOTES

1. Approval of this Site Development Plan does not constitute approval of any deviations from Town of Castle Rock regulations and standards. All deviations from Town regulations and standards are subject to the appropriate procedures for approval. There may be subsequent amendments.
2. The Brickyard Planned Development Plan and Zoning Regulations recorded at reception No. 2025036427 on 08/05/2025.
3. This property is located within Zone __X__ as per FEMA FIRM Panel No. 08035C0301G Dated 03/16/2016. Portions of the property are located within a designated 100-year floodplain Zone A/AE.
4. The purpose and use of all tracts, to whom the tracts will be dedicated with the Plat and who will be responsible for maintenance is shown in a table on this Site Development Plan.
5. This development is impacted by the Town of Castle Rock Skyline/Ridgeline Protection Regulations. Skyline/Ridgeline areas must adhere to Chapter 17.48 of the Town of Castle Rock Municipal Code.
6. Retaining walls, sections of retaining walls greater than 4-feet in height as measured from the bottom of the footing to the top of the wall, and retaining walls, regardless of height, which retain a surcharge or tiered walls must be designed by a Structural Engineer licensed in the State of Colorado and require a building permit.
7. If the project will be located within 300 feet of the 100 yr. floodplain, approval from the U.S. Fish and Wildlife Service will be required for potential disturbance of the Preble's Meadow Jumping Mouse habitat.
8. Retaining walls in common areas or that span multiple lots regardless of size/height must be located in a tract. The retaining walls must be maintained by the HOA or Metro District.
9. The Town of Castle Rock requires that maintenance access be provided to all storm drainage facilities to assure continuous operational capability of the system. The Property Owner, subsequent owners, heirs, successors and assigns shall be responsible for the maintenance of all drainage facilities including, but not limited to, inlets, pipes, culverts, channels, ditches, hydraulic structures, and detention basins located on this property, unless modified by the Subdivision Improvements Agreement. Should the Owner fail to adequately maintain said facilities, the Town shall have the right to enter said property for the purposes of operation and maintenance. All such maintenance costs will be assessed to the Property Owner, subsequent owners, heirs, successors and assigns. The maintenance costs shall include all actual costs for labor, equipment and materials and a 25% fee.
10. Pursuant to the Town of Castle Rock Landscape Regulations the Property Owner, subsequent owners, heirs, successors and assigns shall be responsible for the proper maintenance of the area subject to the approved Site Development Plan. Landscaping within public rights-of-way is to be maintained by the adjacent private property owner or the Homeowner/Property Owner Association, as applicable. Landscaping shall be continuously maintained including necessary watering, weeding, pruning, mowing, pest control, and replacement of dead or diseased plant material. Upon written notice by the Town, the Owner will have 45 days to cure or replace damaged or dead landscape material. In the case of diseased landscape material, a shorter compliance period may be specified in said notice. The Town of Castle Rock Water Conservation Ordinance regulates times of seasonal irrigation and prohibits the wasting of potable water through improper irrigation.
11. Final landscape area, coverage and plant quantities, shall meet or exceed quantities represented in this Site Development Plan. Any changes to the approved landscape plans shall require an SDP amendment.
12. The number of parking spaces is based on the proposed uses, number of units and non-residential square footage represented in this Site Development Plan. A change of use to a more parking intensive use as identified in Chapter 17.54 of the Castle Rock Municipal Code or applicable Planned Development Zoning Regulations will require an amendment to this Site Development Plan.
13. The parking space analysis reflected in the parking tables contained in this Site Development Plan is based on Brickyard Parking Study, dated August 22, 2025, prepared by Walker Consultants, and is incorporated by reference into this Site Development Plan. All future Site Development Plans or Amendments, Building Permit applications and Tenant Finish applications for the Brickyard PD must include a revised Parking Study, a revised Parking Table - Joint Use Parking Space Analysis table and Parking by Phase table and Parking Allocation Plan that capture the changes in uses, square footages and number of dwelling units.
14. A sign permit for each sign must be obtained from the Town of Castle Rock Zoning Division prior to placing any sign on the property. All signs must comply with the provisions of Title 19 (Sign Code Regulations) of the Municipal Code or applicable Planned Development Zoning regulations.
15. Any street signs, striping, street lights and curb ramps are conceptual only and subject to Town review with the Construction Documents. These items shall comply with the Town of Castle Rock's regulations, standards and requirements.
16. The Developer shall conform to the Town of Castle Rock "Water Use Management Program Implementation Policy", as amended from time to time, for this project.
17. No solid object (excluding fire hydrants, traffic control devices and traffic signs) exceeding thirty (30) inches in height above the flow line elevations of the adjacent street, including but not limited to buildings, utility cabinets, walls, fences, landscape plantings, crops, cut slopes, and berms shall be placed within sight distance lines and sight distance easements.
18. All proposed Utility, Drainage, Emergency Access, Sight Distance and Public Access/Trail Easements as shown on the Site Development Plan are conceptual and shall be established with a plat or separate document.
19. Unless otherwise noted, all lots shall have a 10-foot Utility Easement along the front and rear lot lines and along all public rights-of-way and shall have 5-foot Utility Easements along each side lot line. These Utility Easements are for the installation, maintenance and operation of utilities and drainage facilities including, but not limited to street lights, electric lines, gas lines, cable television lines, fiber optic lines and telephone lines, water meters, fire hydrants and curb boxes as well as perpetual right for ingress and egress for installation, maintenance and replacement of such lines. Any variation from this requires an approved Technical Criteria Variance.
20. All subdivisions shall include adequate easements to accommodate the construction, maintenance and repair of all public access, sidewalks, trails, water supply system, waste water systems, storm water management system and erosion control facilities, telecommunications and other utilities required to provide each utility to each occupied structure in the subdivision.
21. No structure shall be constructed over any portions of a recorded Town easement unless a revocable license is approved by the Town and the structure will not interfere with the intended use of the easement.
22. Any structures placed in the easement including but not limited to paving, fencing, retaining walls and landscaping shall be removed and replaced by the owner upon the request of the utilities department or private utility company so that maintenance may be performed. The owner of the land shall agree to hold the Town and/or private utility company harmless for any loss of property or landscaping and irrigation removed from the easement or damaged due to maintenance activities and all associated costs.
23. Developer will be responsible for the Industrial Tributary Trail improvements and associated infrastructure (walls, railings, etc.) from the Millers Landing development to the entrance of the future grade separated box culvert at existing Prairie Hawk Drive.
24. Regional Industrial Tributary Trail Grade Separated Crossing and Drainage Culvert at Prairie Hawk Drive are preliminary and subject to change per the Town's Industrial Tributary Trail project. The design and alignment of the grade-separated crossing and drainage culvert will be detailed in the Construction Documents.
25. The dog park amenity will be included in the future Site Development Plan Amendment for development of PA-2 north of Brickyard Circle.



ZONING COMPARISON KEY PLAN

BUILDING NAME LEGEND

1 GREAT HALL / SAWTOOTH
2 HOTEL CASTLE ROCK
3 PARKING GARAGE
4 BRICKYARD LUXE
5 BRICKYARD APARTMENTS
6 BRICKYARD FLATS
7 BOWLING ALLEY
8 FUTURE COMMERCIAL BLDG.

FIRE NOTES

1. If fire apparatus access roads or water supply for fire protection is required to be installed, such protection shall be installed and made serviceable prior to vertical construction.
2. Fire hydrant(s) are required to be installed and made serviceable prior to and during the time of construction.
3. It is the responsibility of the property owner to maintain drive lanes for emergency vehicle ingress and egress, including snow removal.
4. All emergency access roads, emergency access gates and signage shall comply with the Town of Castle Rock Fire Department requirements and shall be maintained by Metropolitan District, Homeowners Association, or other property management entity.
5. Approved fire apparatus access roads shall be provided for every facility, building or portion of a building constructed or moved into, or within the jurisdiction. The fire apparatus access road shall extend to within 150 feet of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility.
6. Dead-end fire access roads in excess of 150 feet shall provide an approved area for turning around fire apparatus.
7. Fire apparatus access roads shall have an ***unobstructed width of not less than 20 feet,*** exclusive of shoulders, except for approved security gates and an ***unobstructed vertical clearance of not less than 13 feet, 6 inches.***
8. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus weighing at least 88,000 pounds, and shall be surfaced so as to provide all weather driving capabilities. The term "all-weather driving capabilities" has been interpreted to mean either concrete or asphalt, or other approved driving surface designed by an engineer and approved by the Fire Department.
9. "No Parking Fire Lane" signs are required in areas that meet the following criteria and in areas designated by the Castle Rock Fire Department. Signs shall be posted on both sides of fire access roadways, public or private roadways and driveways less than 26 feet wide. Signs shall be posted on one side only of fire access roadways, public or private roadways or driveways between 26 feet wide and 32 feet wide. No signage is required for fire access roadways, public or private roadways or driveways greater than or equal to 32 feet wide.
10. "Fire Lane No Parking" Curb Marking. All designated lanes SHALL be accompanied with curb markings in a weather resistant red paint. Reflective paint may be used for higher visibility. Curbing shall be labeled, "NO PARKING -FIRE LANE" in all upper case letters. Lettering shall be no less than three (3") inches high with white lettering on a red back ground and placed on the face and top of the curb. Lettering shall be located no more than fifty (50') apart and within five feet of the beginning and end of any fire lane.
11. The developer understands that as the project develops there may be fire and life safety provisions of the **Town of Castle Rock adopted International Fire Code (IFC) or Community Wildfire Protection Plan (CWPP)** that may arise, and were not clearly visible during the initial reviews, but may require corrective action. These items may include, but are not limited to: Fire flow requirements, fire hydrant placement, access, etc.

ZONING COMPARISON AND DEVELOPMENT STANDARDS

ELEMENTS	ZONING STANDARDS					PROPOSED SDP24-0022			
ZONING	THE BRICKYARD PLANNED DEVELOPMENT AMENDMENT NO. 1					THE BRICKYARD PLANNED DEVELOPMENT			
PLANNING AREA	PL-1 (PLD)	PLANNING AREA 1 (PA-1)	PLANNING AREA 2 (PA-2)	PLANNING AREA 3 (PA-3)	PLANNING AREA 4 (PA-4)	PLANNING AREA 1 (PA-1)	PLANNING AREA 2 (PA-2)	PLANNING AREA 3 (PA-3)	PLANNING AREA 4 (PA-4)
PERMITTED LAND USES	PUBLIC LAND DEDICATION (RECREATION CENTER)	HOTEL (THE GREAT LAWN, CONFERENCE)	MIXED-USE (OFFICE, RETAIL, RESTAURANT, MULTIFAMILY)	MIXED-USE (OFFICE, RESTAURANT, RETAIL, MULTIFAMILY, ENTERTAINMENT)	GREAT HALL (CONFERENCE, OFFICE, RETAIL, RESTAURANT, MARKETPLACE)	HOTEL (THE GREAT LAWN, CONFERENCE)	MIXED-USE (OFFICE, RETAIL, RESTAURANT, MULTIFAMILY)	MIXED-USE (OFFICE, RESTAURANT, RETAIL, MULTIFAMILY, ENTERTAINMENT)	GREAT HALL (OFFICE, RETAIL, RESTAURANT, MARKETPLACE)
BRICKYARD PD TOTAL ACREAGE	31.61 AC					21.14 AC			
[1] AREA (ACRE)	10.47 AC (TOTAL)	2.57 AC	9.29 AC	8.40 AC	0.88 AC	2.57 AC	9.29 AC	8.40 AC	0.88 AC
[1] % OF TOTAL AREA	33%	8%	29%	27%	3%	8%	29%	27%	3%
MAXIMUM # OF DWELLING UNITS / OVERALL PD	NOT ALLOWED	NOT ALLOWED	MULTIFAMILY: 530 UNITS		NOT ALLOWED	NOT ALLOWED	MULTIFAMILY: 384 UNITS		NOT ALLOWED
[5] GROSS DENSITY OVERALL PD	17 DU/AC					12 DU/AC			
[5] GROSS DENSITY BRICKYARD MIXED USE		25 DU/AC				19 DU/AC			
MAXIMUM # OF DWELLING UNITS / PLANNING AREA	NOT ALLOWED	NOT ALLOWED	[4] 204	[4] 326	NOT ALLOWED	NOT ALLOWED	86 MULTIFAMILY UNITS	298 MULTIFAMILY UNITS	NOT ALLOWED
GROSS DWELLING UNITS / PLANNING AREA	NOT ALLOWED	NOT ALLOWED	22 DU/AC	39 DU/AC	NOT ALLOWED	NOT ALLOWED	9 DU/AC	36 DU/AC	NOT ALLOWED
RESIDENTIAL GROSS SQUARE FOOTAGE			770,000 GSF				460,000 GSF		
MAXIMUM NON-RESIDENTIAL GROSS SQUARE FOOTAGE	99,000 SF (125 KEYS; 200-300 SEATS CONFERENCE)								
HOTEL (KEYS, CONFERENCE)						93,000 SF (123 KEYS) 6,000 SF CONFERENCE (200-300 SEATS)			
OFFICE	49,000 SF						27,800 SF	21,000 SF	
RETAIL	7,100 SF						1,600 SF	5,500 SF	
GREAT HALL (MARKETPLACE / RETAIL, RESTAURANT, OFFICE)	23,000 SF								23,000 SF
RESTAURANT	17,000 SF						4,200 SF	12,800 SF	
BOWLING ALLEY	67,900 SF							67,900 SF	
CASTLE ROCK SPORTS CENTER	145,000 SF					145,000 SF (PLD) NOT A PART OF THIS SDP			
TOTAL NON-RESIDENTIAL SF	408,000 SF					407,800 SF			
TOTAL BRICKYARD MIXED USE MAXIMUM SF	1,178,000 SF					867,800 SF			
MAXIMUM LOT COVERAGE (FAR)	1.0 FAR	1.0 FAR	1.0 FAR	1.5 FAR	1.0 FAR	0.9 FAR	0.2 FAR	0.3 FAR	0.6 FAR
MAXIMUM BUILDING HEIGHT	65'	HOTEL: 90' APPURTENANT: 65'	65'	75'	65'	MAX. 80'	MAX. 55'	MAX. 75'	MAX. 55'
[6]SETBACKS									
MINIMUM FRONT YARD SETBACK FROM PROPERTY LINE	15' 25' IF ABUTTING AN ARTERIAL STREET	TO BE DETERMINED WITH THE SDP				MIN. 0'	MIN. 0'	MIN. 0'	MIN. 0'
MINIMUM SIDE YARD SETBACK FROM PROPERTY LINE	15'	TO BE DETERMINED WITH THE SDP				MIN. 0'	MIN. 0'	MIN. 0'	MIN. 0'
MINIMUM REAR YARD SETBACK FROM PROPERTY LINE	15'	TO BE DETERMINED WITH THE SDP				MIN. 0'	MIN. 0'	MIN. 0'	MIN. 0'

SITE UTILIZATION

	AREA (ACRE)		% TOTAL OF PD		PROVIDED	
	REQUIRED	PD PLAN	REQUIRED	PD PLAN	AREA (ACRE)	% OF SITE
PLANNING AREAS		21.14 AC		67%	15.65 AC	50%
PUBLIC LAND DEDICATION (PLD)	12.40 AC	[3] 10.47 AC	40%	33%	[3] 10.47 AC	33%
OPEN SPACE	6.32 AC	[2] 0 AC	20%	[2] 0%	[2] 5.49 AC	17%
TOTAL PD AREA	31.61 AC	31.61 AC		100%		100%

FOOTNOTES:

[1] THE TOTAL PD IS 31.61 ACRES, WHERE 10.47 ACRES ARE IDENTIFIED FOR THE CASTLE ROCK SPORTS CENTER (PLD); THE REMAINING PLANNING AREAS IS 21.14 ACRES.

[2] MINIMUM OPEN SPACE REQUIRED FOR THE PD IS 6.32 ACRES. THE OPEN SPACE DEDICATIONS, PUBLIC OR PRIVATE, WILL BE DETERMINED AT THE TIME OF SITE DEVELOPMENT PLAN AND PLATS WITHIN THE PLANNING AREAS. CASH-IN-LIEU OF OPEN SPACE MAY BE PROVIDED AT THE TOWN DISCRETION.

[3] REQUIRED PUBLIC LAND DEDICATION IS 12.40 ACRES. 10.47 ACRES ARE IDENTIFIED FOR THE CASTLE ROCK SPORTS CENTER. THE LOCATION OF THE REMAINING 1.93 ACRES WILL BE DETERMINED AT THE TIME OF SITE DEVELOPMENT PLAN AND PLATS WITHIN THE PLANNING AREAS. CASH-IN-LIEU MAY BE PROVIDED AT THE TOWN'S DISCRETION.

[4] A MAXIMUM 20% OF DWELLING UNITS MAY BE TRANSFERRED BETWEEN PLANNING AREAS 2 AND 3, UPON ADMINISTRATIVE APPROVAL OF THE TOWN OF CASTLE ROCK.

[5] GROSS DENSITY IS THE MAXIMUM DENSITY ALLOWED PER PLANNING AREA, WITH THE EXCEPTION OF DWELLING UNIT TRANSFERS DEFINED IN NOTE 4.

[6]GARAGE AREA IS NOT USED FOR LOT COVERAGE (FAR).

[7] PRAIRIE HAWK DRIVE RIGHT-OF-WAY VACATED BY THE TOWN OF CASTLE ROCK PER ORDINANCE 2025-_____.

[8]SETBACK IS MEASURED FROM PROPERTY LINE TO THE FACE OF THE STRUCTURE.

BUILDING PROGRAM

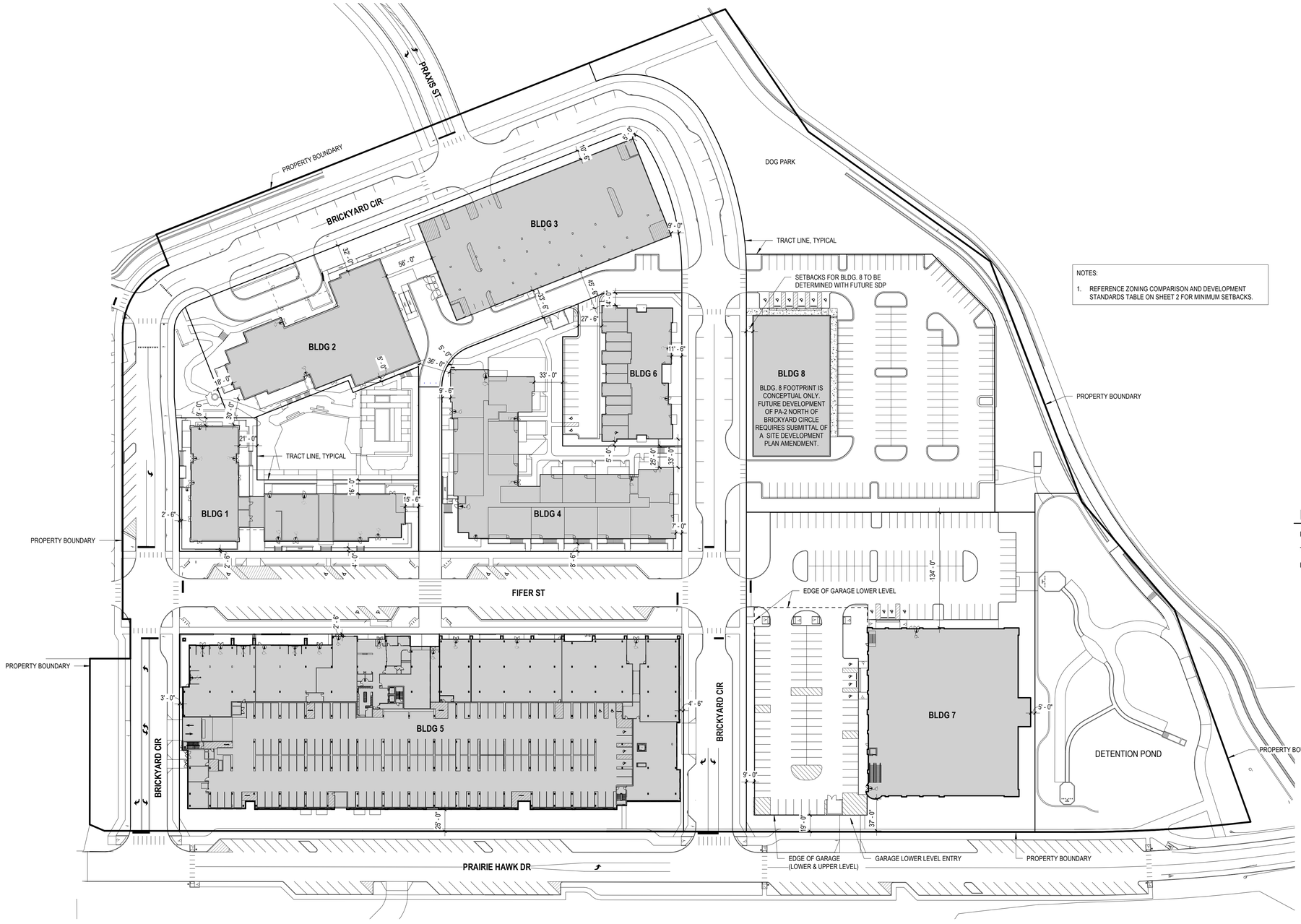
	BUILDING NAME	GROSS SQUARE FOOTAGE (COMMERCIAL)	GROSS SQUARE FOOTAGE (RESIDENTIAL)	DWELLING UNIT TYPE				
				STUDIO	1 BR	2 BR	3 BR	TOTAL
1	GREAT HALL / SAWTOOTH	56,600						
2	HOTEL CASTLE ROCK	99,000		123 KEYS				
3	PARKING GARAGE	81,500						
4	BRICKYARD LUXE		108,000	0	8	35	23	66
5	BRICKYARD APARTMENTS	39,300	317,000	36	149	98	15	298
6	BRICKYARD FLATS		35,000	0	10	10	0	20
7	BOWLING ALLEY	67,900						
8	FUTURE COMMERCIAL BLDG.	SEE NOTE 1						
	SUBTOTAL	262,800	460,000					
	GRAND TOTAL	722,800 GSF		36	167	143	38	384

NOTES:
1. BUILDING 8 FOOTPRINT IS CONCEPTUAL ONLY. FUTURE DEVELOPMENT OF PA-2 NORTH OF BRICKYARD CIRCLE REQUIRES SUBMITTAL OF A SITE DEVELOPMENT PLAN AMENDMENT.
2. FLOOR AREA IS THE SUM OF THE GROSS AREAS OF SEVERAL FLOORS OF THE BUILDING.
3. GARAGE GSF IS NOT INCLUDE IN THE COMMERCIAL GSF CALCULATION.

SITE DEVELOPMENT PLAN

THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



NOTES:

1. REFERENCE ZONING COMPARISON AND DEVELOPMENT STANDARDS TABLE ON SHEET 2 FOR MINIMUM SETBACKS.

LEGEND

- PROPERTY BOUNDARY
- TRACT LINE
- BUILDING FOOTPRINT

BUILDING NAME LEGEND

1	GREAT HALL / SAWTOOTH
2	HOTEL CASTLE ROCK
3	PARKING GARAGE
4	BRICKYARD LUXE
5	BRICKYARD APARTMENTS
6	BRICKYARD FLATS
7	BOWLING ALLEY
8	FUTURE COMMERCIAL BLDG.

1 BUILDING SETBACKS PLAN
1" = 60'-0"

0' 30' 60' 120'
SCALE: 1" = 60' - 0"

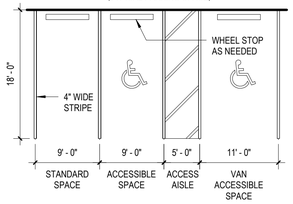
BUILDING SETBACKS PLAN
SHEET 3 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN

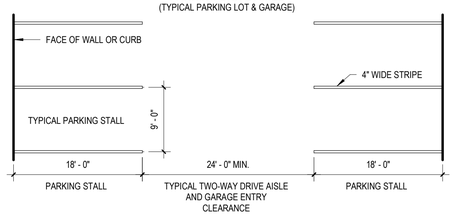
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
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TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

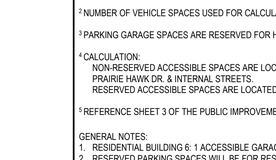
PARKING SPACE TYPES
(TYPICAL PARKING SPACE)



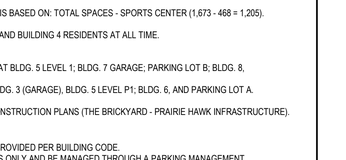
PARKING DRIVE AISLE
(TYPICAL PARKING LOT & GARAGE)



PARALLEL PARKING SPACE
SEE: SHEET 14 (STREET SECTION TYPES 1 & 2)



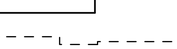
ANGLE PARKING SPACE
SEE SHEET 14 (STREET SECTION TYPES 4 & 5)



NOTE: PARKING SPACE SIZE IS BASED ON THE APPROVED BRICKYARD PD PLAN AND ZONING REGULATIONS STREET STANDARD. SEE DWG 4 / SHEET 14 OF THIS SDP.

PARKING SPACE AND DRIVE AISLE STANDARDS

REFERENCE SITE PLAN FOR SPECIFIC LOCATIONS



SCALE: 1" = 10' - 0"

PARKING SUMMARY BY PHASE REFERENCE SHEET 5 - PEAK DEMAND STUDY CHART.

TYPE (LOCATION)	PHASE 1	PHASE 2	PHASE 3	RESERVED SPACES	NOTES
CASTLE ROCK SPORTS CENTER	468			0	SURFACE LOT
PRAIRIE HAWK DR.[5]	92			0	ON-STREET
INTERNAL STREETS	95			0	ON-STREET
BUILDING 5: BRICKYARD APTS.	336			174	2 LEVEL GARAGE
BUILDING 3: GARAGE[3]		243		243	3 LEVEL GARAGE
BUILDINGS 6: BRICKYARD FLATS		12		12	1 LEVEL GARAGE
PARKING LOT A		15		15	SURFACE LOT
BUILDING 7: BOWLING ALLEY			165	0	2 LEVEL GARAGE
PARKING LOT B			89	0	SURFACE LOT
PARKING LOT C			158	0	SURFACE LOT
PARKING PROVIDED BY PHASE	991	270	412	444	TOTAL RESERVED
CUMULATIVE PARKING PROVIDED BY PHASE		1,261	1,673		
DEMAND BY PHASE	941	286	293		
CUMULATIVE DEMAND BY PHASE		1,227	1,520		

ACCESSIBLE PARKING

STANDARDS	REQUIREMENT FACTOR		
IBC TABLE 1106.2 ACCESSIBLE SPACES	1 TO 25 REQUIRES 1; 501 TO 1,000 REQUIRES 2% OF TOTAL		
IBC TABLE 1106.6 VAN ACCESSIBLE SPACE	1 PER 6 ACCESSIBLE SPACES		
IBC TABLE 1106.3 GROUP R-2	2% OF TOTAL PROVIDED		
PARKING SPACE TYPE	REQUIRED	PROVIDED	[3] REQUIREMENT CALCULATION
ACCESSIBLE	28	32	NON-RESERVED REQUIRES 25 SPACES
VAN ACCESSIBLE	9	12	RESERVED REQUIRES 12 SPACES
TOTAL	37	44	TOTAL = 37 ACCESSIBLE SPACES

BICYCLE PARKING

STANDARDS	REQUIREMENT FACTOR		
PER CASTLE ROCK MUNICIPAL CODE, CHAPTER 17.54 - OFF-STREET PARKING, 17.54.040.I	5% OF THE TOTAL OFF-STREET VEHICLE PARKING SPACES		
	REQUIRED	PROVIDED	REQUIREMENT CALCULATION
	61	116	5% X 1,205 [1 & 2] VEHICLE SPACES = 61 SPACES

FOOTNOTES:

[1] PER THE BRICKYARD PD PLAN AND ZONING REGULATIONS ALL ON-STREET PARKING SPACES COUNT TOWARD THE REQUIRED PARKING FOR THE SITE AND ARE INCLUDED IN THE POOL OF AVAILABLE PARKING SPACES.

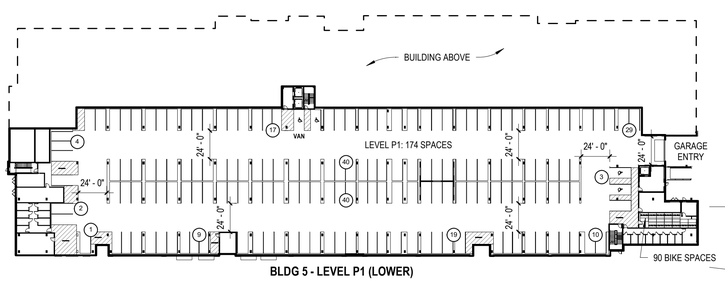
[2] NUMBER OF VEHICLE SPACES USED FOR CALCULATION IS BASED ON: TOTAL SPACES - SPORTS CENTER (1,673 - 468 = 1,205).

[3] PARKING GARAGE SPACES ARE RESERVED FOR HOTEL AND BUILDING 4 RESIDENTS AT ALL TIME.

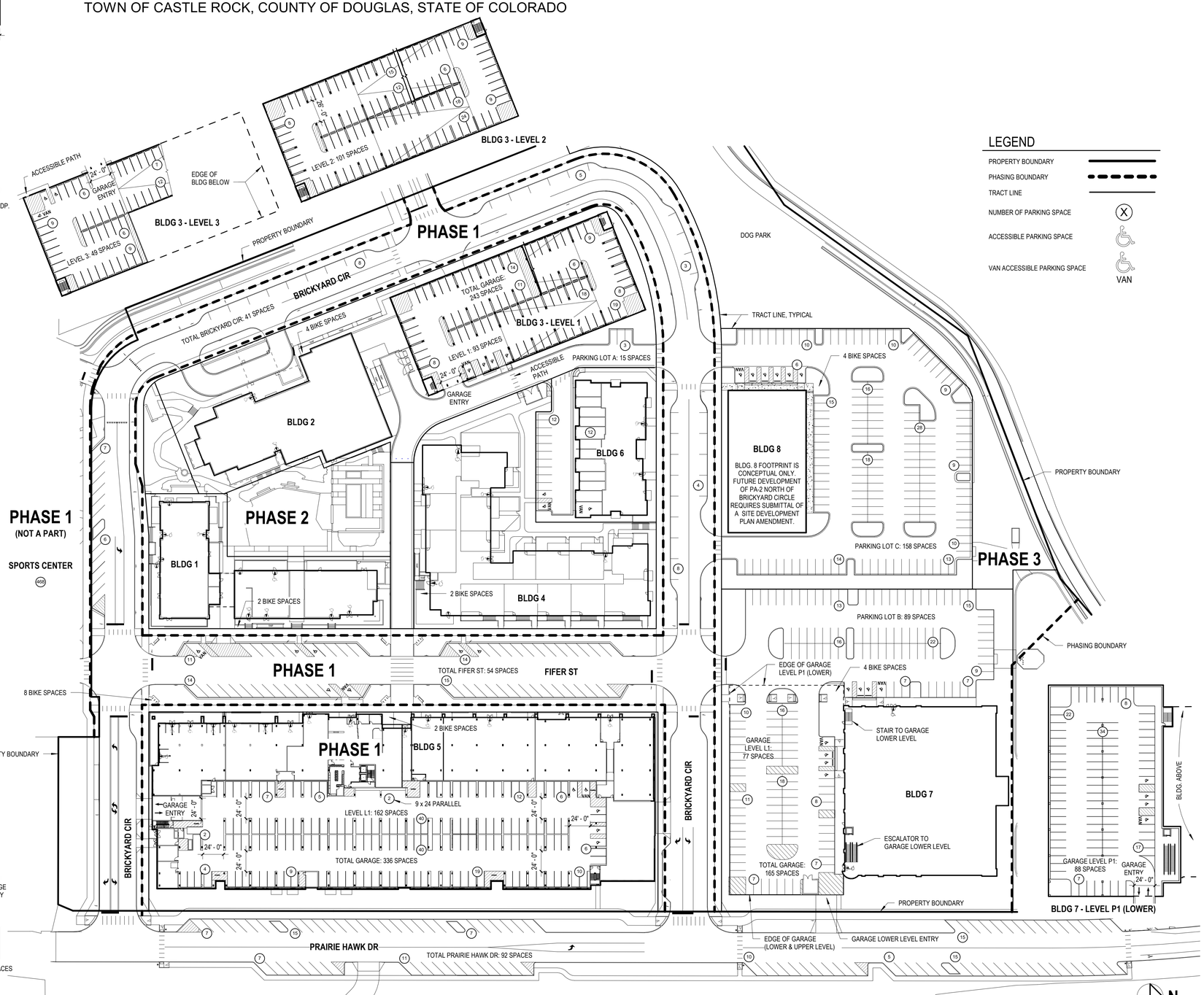
[4] CALCULATION:
NON-RESERVED ACCESSIBLE SPACES ARE LOCATED AT BLDG. 5 LEVEL 1; BLDG. 7 GARAGE; PARKING LOT B; BLDG. 8, PRAIRIE HAWK DR. & INTERNAL STREETS.
RESERVED ACCESSIBLE SPACES ARE LOCATED AT BLDG. 3 (GARAGE), BLDG. 5 LEVEL P1; BLDG. 6, AND PARKING LOT A.

[5] REFERENCE SHEET 3 OF THE PUBLIC IMPROVEMENT CONSTRUCTION PLANS (THE BRICKYARD - PRAIRIE HAWK INFRASTRUCTURE).

GENERAL NOTES:
1. RESIDENTIAL BUILDING 6: 1 ACCESSIBLE GARAGE IS PROVIDED PER BUILDING CODE.
2. RESERVED PARKING SPACES WILL BE FOR RESIDENTS ONLY AND BE MANAGED THROUGH A PARKING MANAGEMENT SYSTEM OR BY ATTACHED GARAGES.



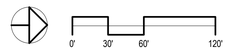
BLDG 5 - LEVEL P1 (LOWER)



LEGEND

- PROPERTY BOUNDARY
- PHASING BOUNDARY
- TRACT LINE
- NUMBER OF PARKING SPACE (X)
- ACCESSIBLE PARKING SPACE
- VAN ACCESSIBLE PARKING SPACE (VAN)

1 PARKING ALLOCATION PLAN
1" = 60'-0"



SCALE: 1" = 60' - 0"

PARKING ALLOCATION PLAN & DATA
SHEET 4 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN

THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

PARKING DEMAND - PHASE 1 REFERENCE PARKING STUDY, DATED AUGUST 22, 2025

Uses	Quantity	Per Unit[8]	Peak Weekday Morning Use[5] (11 AM)	Peak Weekday Afternoon Use[6] (5 PM)	Peak Weekday Evening Use[7] (6 PM)	Peak Weekday Overnight Use[8] (12 AM)[2]	Peak Weekend Morning Use[5] (11 AM)	Peak Weekend Afternoon Use[6] (1 PM)[1]	Peak Weekend Evening Use[7] (7 PM)	Peak Weekend Overnight Use[8] (12 AM)[2]
General Retail	5,421	GSF	14	15	16	0	17	20	13	0
Retail - Market Place	0	GSF	0	0	0	0	0	0	0	0
Retail - Supermarket	0	GSF	0	0	0	0	0	0	0	0
Restaurant - Low Turnover	11,000	GSF	66	107	129	36	39	90	147	77
Bowling Alley[12]	0	GSF	0	0	0	0	0	0	0	0
Hotel - Guest Rooms	0	Rooms	0	0	0	0	0	0	0	0
Hotel - Conference Center[3]	0	GSF	0	0	0	0	0	0	0	0
Multifamily[4, 9]	298	Dwelling Units	378	384	390	596	381	381	415	596
General Office	8,500	GSF	22	13	5	0	4	3	0	0
Medical Office	14,500	GSF	66	57	44	0	0	0	0	0
CR Sports Center[10, 11]	145,000	GSF	166	208	208	0	447	447	224	0
			712	**784**	**792**	**632**	**888**	**941**	**799**	**673**

[1] Outlined figures indicate demand by land use during projected systemwide peak demand period. This is the total parking spaces needed for the maximum proposed number of dwelling units and non-residential square footage.
[2] Grey highlighting indicates that full multi-family residential and hotel requirement per CRMC, Section 17.54.040, is available for use during this time period when multi-family residential demand and hotel demand peak.
[3] 300 non-fixed seats are planned for the conference center.
[4] During off-peak or overnight hours, unreserved or shared apartment spaces are anticipated to be available for use by residents, as parking demand needs for other uses would decrease such that there would not be a need for those spaces during those times. At the discretion of the property management company, such spaces may be signed as "for resident parking only" during off-peak hours for other uses.
[5] Weekday and weekend morning period consists of the hours between 6 AM and 12 PM
[6] Weekday and weekend afternoon period consists of the hours between 12 PM and 5 PM
[7] Weekday and weekend evening period consists of the hours between 5 PM and 9 PM
[8] Weekday and weekend overnight period consists of the hours between 9 PM and 6 AM
[9] 92 parking spaces along existing Prairie Hawk Dr will be provided per the Site Development Plan and will be included in the pool of available spaces. Reference Sheet 4.
[10] Sports Center parking lot may be restricted by the Town of Castle Rock from time to time for Town sponsored events.
[11] 468 spaces provided on the CR Sports Center site based on Parking analysis conducted by the Town Park and Recreation Department.
[12] Parking ratios were calculated based on an assumption of 62 bowling lanes and 14 employees at peak shift.

PARKING DEMAND - FULL BUILDOUT (1, 2 & 3) REFERENCE PARKING STUDY, DATED AUGUST 22, 2025

Uses	Quantity	Per Unit[8]	Peak Weekday Morning Use[5] (11 AM)	Peak Weekday Afternoon Use[6] (5 PM)	Peak Weekday Evening Use[7] (6 PM)	Peak Weekday Overnight Use[8] (12 AM)[2]	Peak Weekend Morning Use[5] (11 AM)	Peak Weekend Afternoon Use[6] (1 PM)[1]	Peak Weekend Evening Use[7] (7 PM)	Peak Weekend Overnight Use[8] (12 AM)[2]
General Retail	7,000	GSF	18	20	21	0	22	25	16	0
Retail - Market Place	1,500	GSF	5	6	5	1	6	6	2	0
Retail - Supermarket	15,000	GSF	45	60	58	5	62	62	19	2
Restaurant - Low Turnover	22,900	GSF	136	222	268	75	81	187	307	160
Bowling Alley[12]	60,000	GSF	111	111	203	3	171	231	243	231
Hotel - Guest Rooms	123	Rooms	37	38	37	148	42	39	41	148
Hotel - Conference Center[3]	6,000	GSF	40	60	56	0	25	26	35	1
Multifamily[4, 9]	384	Dwelling Units	487	495	502	768	491	491	535	768
General Office	25,000	GSF	62	36	15	0	7	6	0	0
Medical Office	31000	GSF	138	120	93	0	0	0	0	0
CR Sports Center[10, 11]	145,000	GSF	166	208	208	0	447	447	224	0
			1,245	**1,376**	**1,466**	**1,000**	**1,354**	**1,520**	**1,422**	**1,310**

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PARKING DEMAND - PHASE 2 (1 & 2) REFERENCE PARKING STUDY, DATED AUGUST 22, 2025

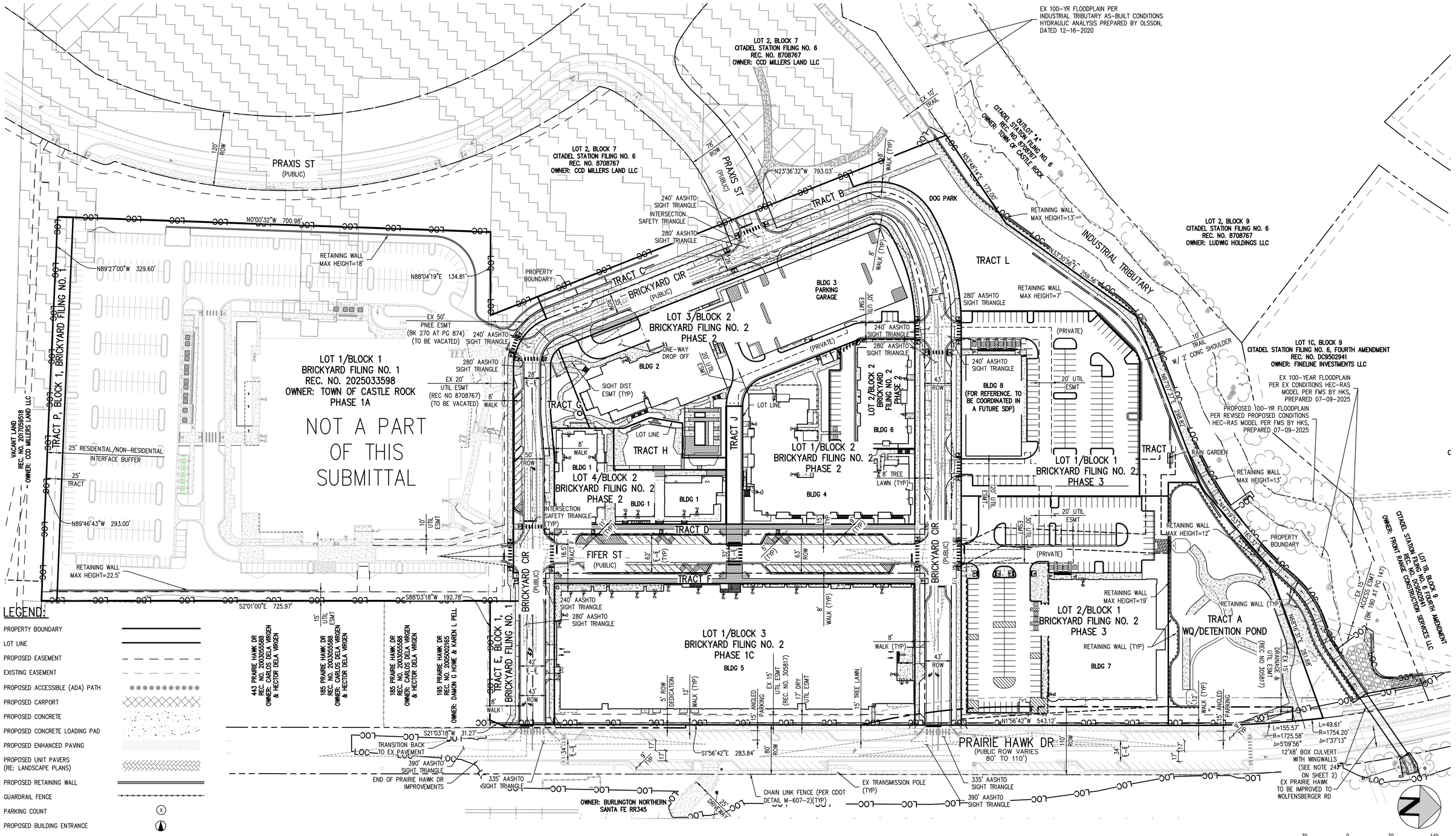
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Retail - Market Place	1,500	GSF	5	6	5	1	6	6	2	0
Retail - Supermarket	0	GSF	0	0	0	0	0	0	0	0
Restaurant - Low Turnover	22,900	GSF	136	222	268	75	81	187	307	160
Bowling Alley[12]	0	GSF	0	0	0	0	0	0	0	0
Hotel - Guest Rooms	123	Rooms	37	38	37	148	42	39	41	148
Hotel - Conference Center[3]	6,000	GSF	40	60	56	0	25	26	35	1
Multifamily[4, 9]	384	Dwelling Units	487	495	502	768	491	491	535	768
General Office	25,000	GSF	62	36	15	0	7	6	0	0
Medical Office	31000	GSF	138	120	93	0	0	0	0	0
CR Sports Center[10, 11]	145,000	GSF	166	208	208	0	447	447	224	0
			1,089	**1,205**	**1,205**	**992**	**1,121**	**1,227**	**1,160**	**1,077**

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SITE DEVELOPMENT PLAN

THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



LEGEND:

- PROPERTY BOUNDARY
- LOT LINE
- PROPOSED EASEMENT
- EXISTING EASEMENT
- PROPOSED ACCESSIBLE (ADA) PATH
- PROPOSED CARPORT
- PROPOSED CONCRETE
- PROPOSED CONCRETE LOADING PAD
- PROPOSED ENHANCED PAVING
- PROPOSED UNIT PAVERS (RE: LANDSCAPE PLANS)
- PROPOSED RETAINING WALL
- GUARDRAIL FENCE
- PARKING COUNT (X)
- PROPOSED BUILDING ENTRANCE
- SNOW STORAGE AREAS
- ADA CURB RAMP
- FLOODPLAIN BOUNDARY
- MINOR SKYLINE AREA
- MODERATE SKYLINE AREA

NOTES:

1. DOG PARK TO BE MAINTAINED BY PROPERTY OWNER FOR CONTAMINATION MITIGATION.
2. THE MAXIMUM RETAINING WALL HEIGHTS SHOWN ON THE SITE PLAN SHEETS ARE MEASURED FROM THE TOP OF WALL (TW) CAP TO THE BOTTOM OF WALL (BW) ELEVATION SHOWN ON THE GRADING PLANS. HEIGHT DOES NOT INCLUDE THE FOUNDATION THICKNESS.

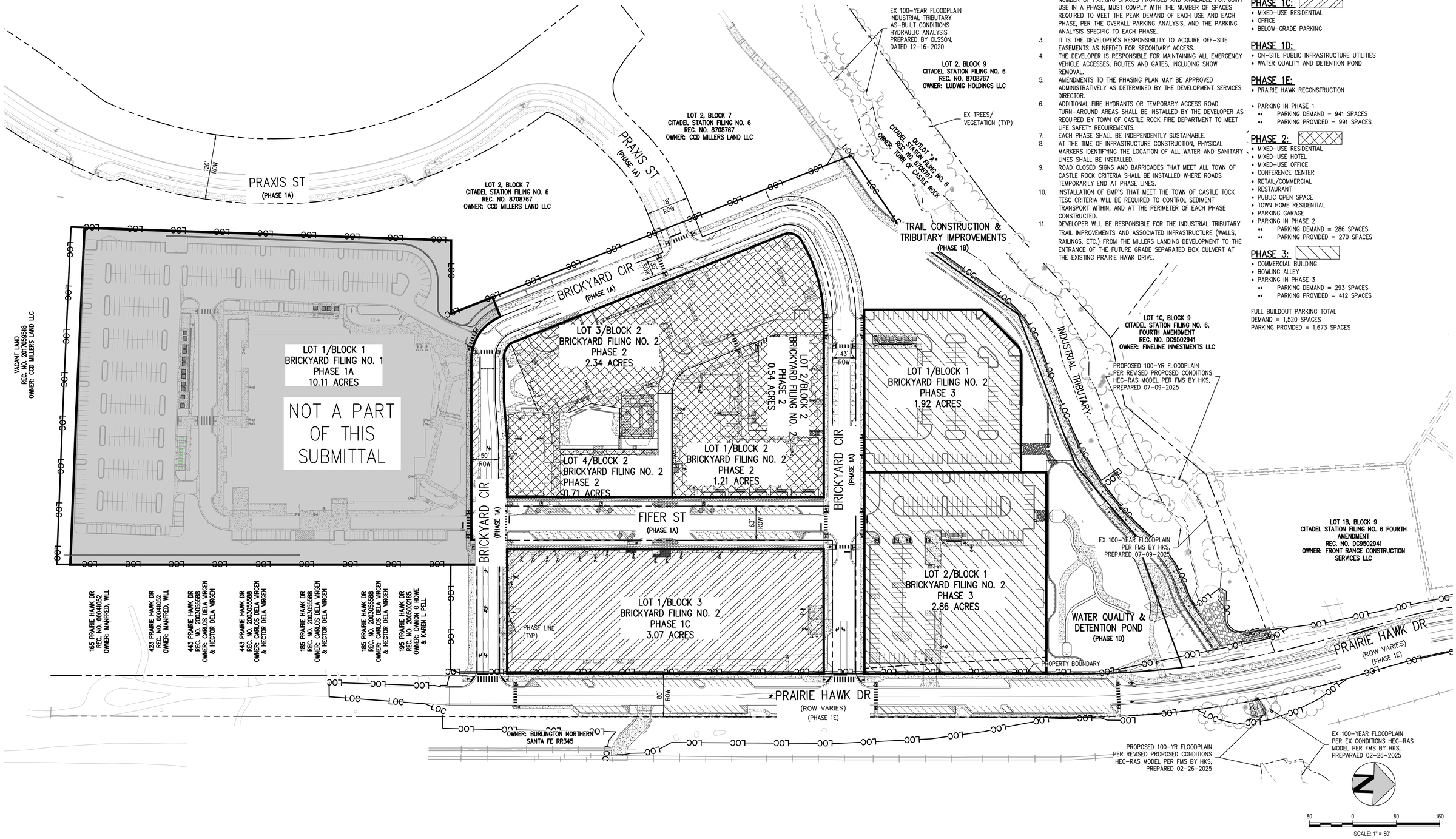
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SCALE: 1" = 70'

PROJECT # 200726

OVERALL SITE PLAN
SHEET 6 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



GENERAL NOTES:

1. ALL PHASES, ASIDE FROM PHASE 1A, MAY BE DEVELOPED IN ANY SEQUENCE OR CONCURRENTLY PROVIDED THAT ALL IMPROVEMENTS, INCLUDING PARKING SPACES NECESSARY TO MEET DEMAND, ASSIGNED TO OTHER PHASES WHICH ARE NECESSARY TO SERVE THE PHASE(S) WITHIN WHICH DEVELOPMENT IS COMMENCING HAVE EITHER BEEN PREVIOUSLY CONSTRUCTED AND ACCEPTED PER TOWN CRITERIA, OR WILL BE CONSTRUCTED BY THE DEVELOPER OF THE PHASE(S) UNDERGOING DEVELOPMENT.
2. REGARDLESS OF PHASE OR PHASING ORDER, THE COLLECTIVE NUMBER OF PARKING SPACES PROVIDED AND AVAILABLE FOR JOINT USE IN A PHASE, MUST COMPLY WITH THE NUMBER OF SPACES REQUIRED TO MEET THE PEAK DEMAND OF EACH USE AND EACH PHASE, PER THE OVERALL PARKING ANALYSIS, AND THE PARKING ANALYSIS SPECIFIC TO EACH PHASE.
3. IT IS THE DEVELOPER'S RESPONSIBILITY TO ACQUIRE OFF-SITE EASEMENTS AS NEEDED FOR SECONDARY ACCESS.
4. THE DEVELOPER IS RESPONSIBLE FOR MAINTAINING ALL EMERGENCY VEHICLE ACCESSES, ROUTES AND GATES, INCLUDING SNOW REMOVAL.
5. AMENDMENTS TO THE PHASING PLAN MAY BE APPROVED ADMINISTRATIVELY AS DETERMINED BY THE DEVELOPMENT SERVICES DIRECTOR.
6. ADDITIONAL FIRE HYDRANTS OR TEMPORARY ACCESS ROAD TURN-AROUND AREAS SHALL BE INSTALLED BY THE DEVELOPER AS REQUIRED BY TOWN OF CASTLE ROCK FIRE DEPARTMENT TO MEET LIFE SAFETY REQUIREMENTS.
7. EACH PHASE SHALL BE INDEPENDENTLY SUSTAINABLE.
8. AT THE TIME OF INFRASTRUCTURE CONSTRUCTION, PHYSICAL MARKERS IDENTIFYING THE LOCATION OF ALL WATER AND SANITARY LINES SHALL BE INSTALLED.
9. ROAD CLOSED SIGNS AND BARRICADES THAT MEET ALL TOWN OF CASTLE ROCK CRITERIA SHALL BE INSTALLED WHERE ROADS TEMPORARILY END AT PHASE LINES.
10. INSTALLATION OF BMP'S THAT MEET THE TOWN OF CASTLE TOCK TESC CRITERIA WILL BE REQUIRED TO CONTROL SEDIMENT TRANSPORT WITHIN, AND AT THE PERIMETER OF EACH PHASE CONSTRUCTED.
11. DEVELOPER WILL BE RESPONSIBLE FOR THE INDUSTRIAL TRIBUTARY TRAIL IMPROVEMENTS AND ASSOCIATED INFRASTRUCTURE (WALLS, RAILINGS, ETC.) FROM THE MILLERS LANDING DEVELOPMENT TO THE ENTRANCE OF THE FUTURE GRADE SEPARATED BOX CULVERT AT THE EXISTING PRAIRIE HAWK DRIVE.

PHASE 1A:
- ROADWAYS INFRASTRUCTURE
- TOWN OF CASTLE ROCK SPORTS CENTER
- SPORTS CENTER SURFACE PARKING

PHASE 1B:
- PUBLIC OPEN SPACE
- TRAIL CONSTRUCTION
- TRIBUTARY IMPROVEMENTS

PHASE 1C:
- MIXED-USE RESIDENTIAL
- OFFICE
- BELOW-GRADE PARKING

PHASE 1D:
- ON-SITE PUBLIC INFRASTRUCTURE UTILITIES
- WATER QUALITY AND DETENTION POND

PHASE 1E:
- PRAIRIE HAWK RECONSTRUCTION

- PARKING IN PHASE 1
  - PARKING DEMAND = 941 SPACES
  - PARKING PROVIDED = 991 SPACES

PHASE 2:
- MIXED-USE RESIDENTIAL
- MIXED-USE HOTEL
- MIXED-USE OFFICE
- CONFERENCE CENTER
- RETAIL/COMMERCIAL
- RESTAURANT
- PUBLIC OPEN SPACE
- TOWN HOME RESIDENTIAL
- PARKING GARAGE
- PARKING IN PHASE 2
  - PARKING DEMAND = 286 SPACES
  - PARKING PROVIDED = 270 SPACES

PHASE 3:
- COMMERCIAL BUILDING
- BOWLING ALLEY
- PARKING IN PHASE 3
  - PARKING DEMAND = 293 SPACES
  - PARKING PROVIDED = 412 SPACES

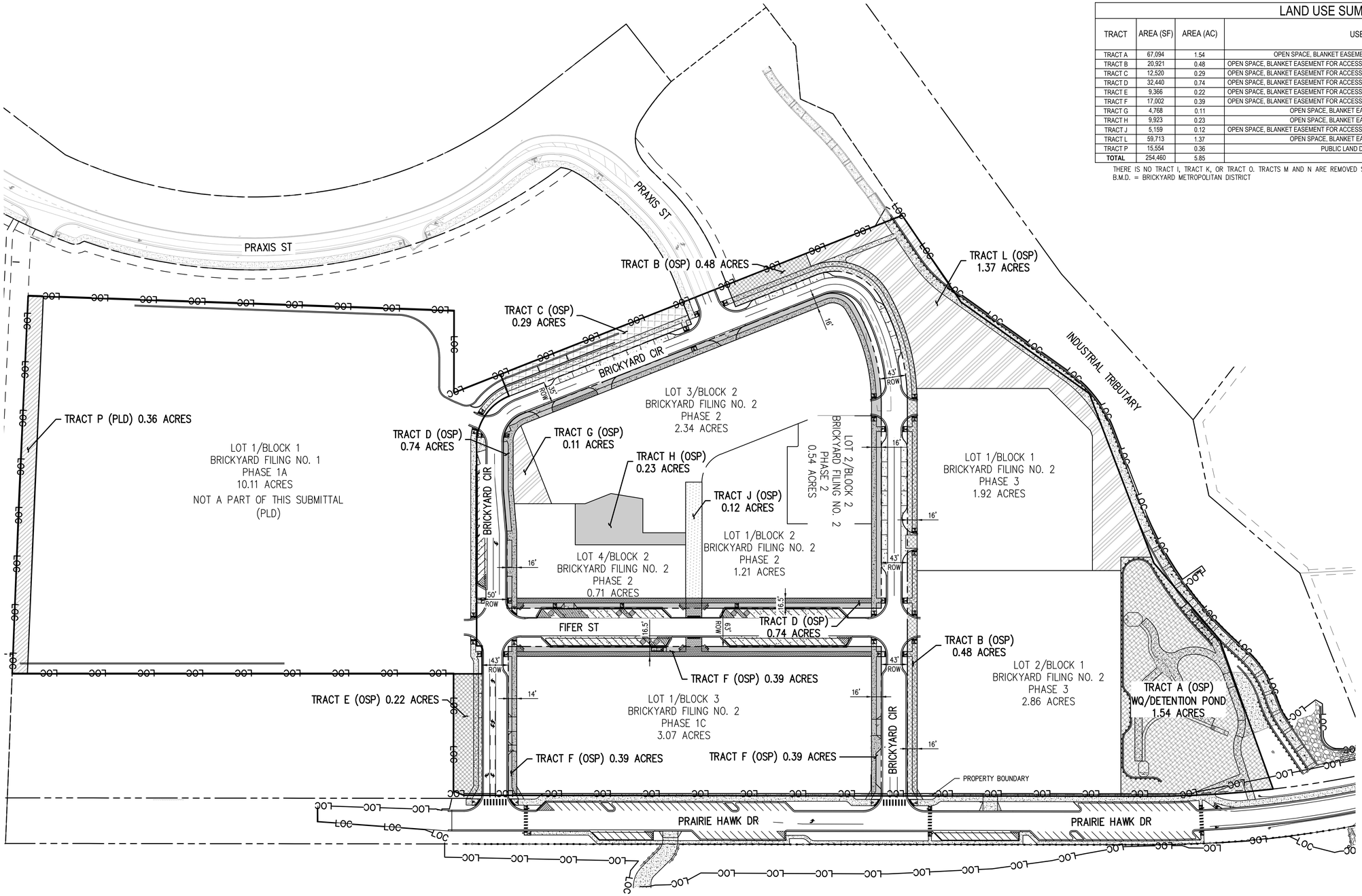
FULL BUILDOUT PARKING TOTAL
DEMAND = 1,520 SPACES
PARKING PROVIDED = 1,673 SPACES

PROJECT # 200726

PHASING PLAN
SHEET 7 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



LAND USE SUMMARY TABLE				
TRACT	AREA (SF)	AREA (AC)	USE	OWNER / MAINTENANCE
TRACT A	67,094	1.54	OPEN SPACE, BLANKET EASEMENT FOR ACCESS, DRAINAGE	B.M.D., ASSOCIATION, OR PRIVATE OWNER
TRACT B	20,921	0.48	OPEN SPACE, BLANKET EASEMENT FOR ACCESS, EMERGENCY ACCESS, UTILITIES, DRAINAGE	B.M.D.
TRACT C	12,520	0.29	OPEN SPACE, BLANKET EASEMENT FOR ACCESS, EMERGENCY ACCESS, UTILITIES, DRAINAGE	B.M.D.
TRACT D	32,440	0.74	OPEN SPACE, BLANKET EASEMENT FOR ACCESS, EMERGENCY ACCESS, UTILITIES, DRAINAGE	B.M.D.
TRACT E	9,366	0.22	OPEN SPACE, BLANKET EASEMENT FOR ACCESS, EMERGENCY ACCESS, UTILITIES, DRAINAGE	B.M.D.
TRACT F	17,002	0.39	OPEN SPACE, BLANKET EASEMENT FOR ACCESS, EMERGENCY ACCESS, UTILITIES, DRAINAGE	B.M.D.
TRACT G	4,768	0.11	OPEN SPACE, BLANKET EASEMENT FOR ACCESS	B.M.D.
TRACT H	9,923	0.23	OPEN SPACE, BLANKET EASEMENT FOR ACCESS	B.M.D.
TRACT J	5,159	0.12	OPEN SPACE, BLANKET EASEMENT FOR ACCESS, EMERGENCY ACCESS, UTILITIES, DRAINAGE	B.M.D.
TRACT L	59,713	1.37	OPEN SPACE, BLANKET EASEMENT FOR ACCESS	B.M.D.
TRACT P	15,554	0.36	PUBLIC LAND DEDICATION	TOWN OF CASTLE ROCK
TOTAL	254,460	5.85		

THERE IS NO TRACT I, TRACT K, OR TRACT O. TRACTS M AND N ARE REMOVED SINCE THEY ARE RIGHT-OF-WAY.
B.M.D. = BRICKYARD METROPOLITAN DISTRICT

SUMMARY TABLE		
USE	AREA (SF)	AREA (AC)
PUBLIC LAND DEDICATION (CASTLE ROCK SPORTS CENTER - NOT PART OF THIS SUBMITTAL & TRACT P)	456,013	10.47
PRIVATE OPEN SPACE / TRACT (TRACTS A, B, C, D, E, F, G, H, J, L)	238,906	5.49
RIGHT-OF-WAY	130,699	3.00
LOTS	551,138	12.65
DEDICATED OPEN SPACE	0	0.00
TOTAL SITE	1,377,356	31.61

NOTES:

1. IN THE EVENT THAT THE METRO DISTRICT SUBMITS A DISSOLUTION PETITION, THE METRO DISTRICT SHALL PROVIDE AN ASSUMPTION OF THE MAINTENANCE OBLIGATIONS EITHER THROUGH A MILL LEVY OR THROUGH A CONTRACT WITH THE HOA TO WHICH THE TOWN IS A PARTY TO.
2. DOG PARK TO BE MAINTAINED BY PROPERTY OWNER FOR CONTAMINATION MITIGATION.

LEGEND:

PLD PUBLIC LAND DEDICATION
OSP PRIVATE OPEN SPACE
OSD DEDICATED OPEN SPACE
OS PUBLIC OPEN SPACE

80 0 80 160
SCALE: 1" = 80'

HARRIS KOCHER SMITH
1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com

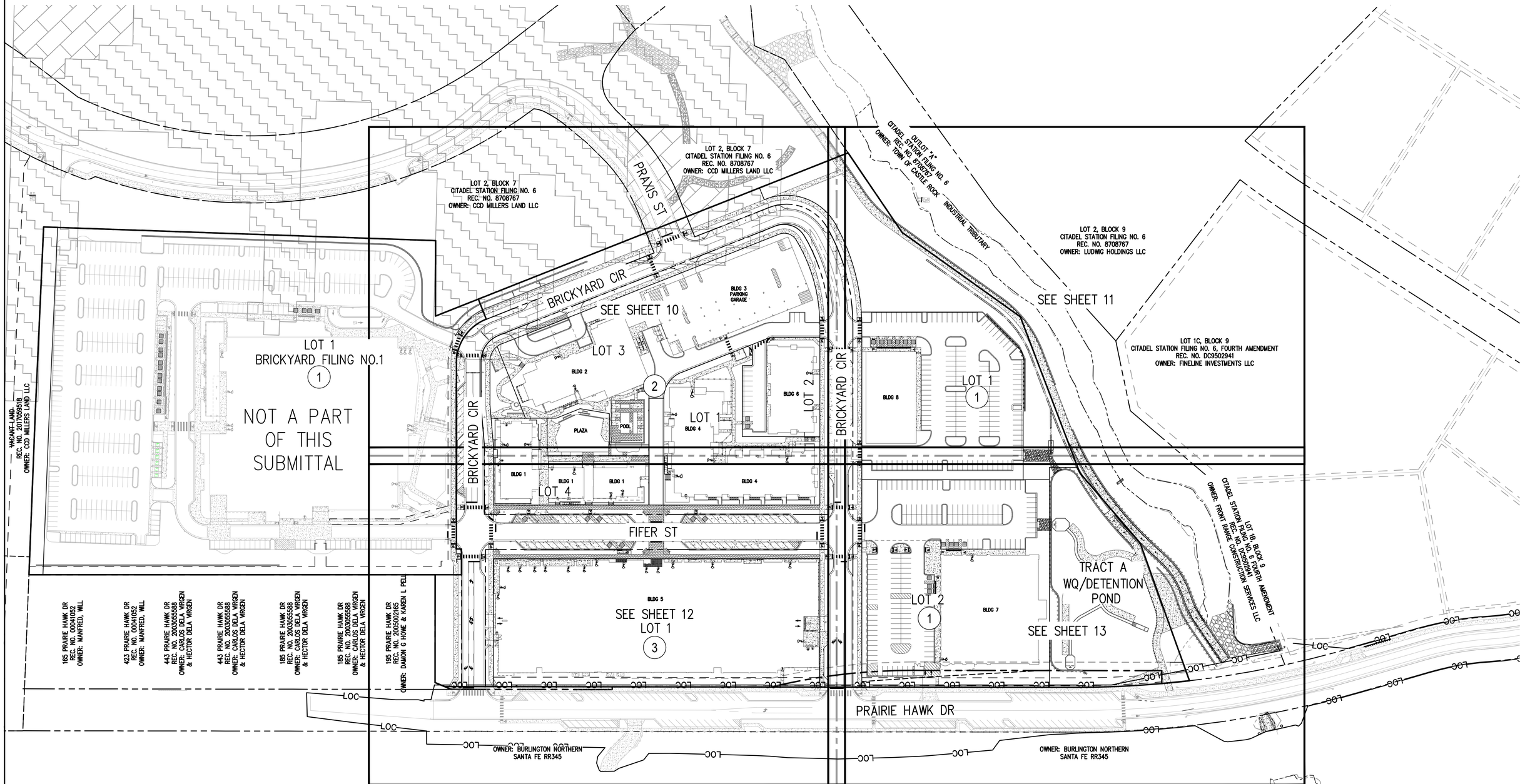
TRACT PLAN
SHEET 8 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

PROJECT # 200726

SITE DEVELOPMENT PLAN

THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



LEGEND

BLOCK NUMBER (#)

MATCH LINE

N

80 0 80 160

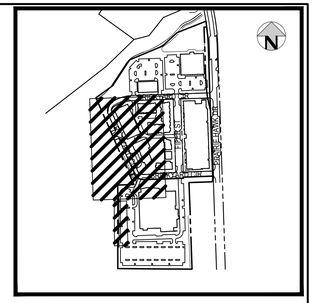
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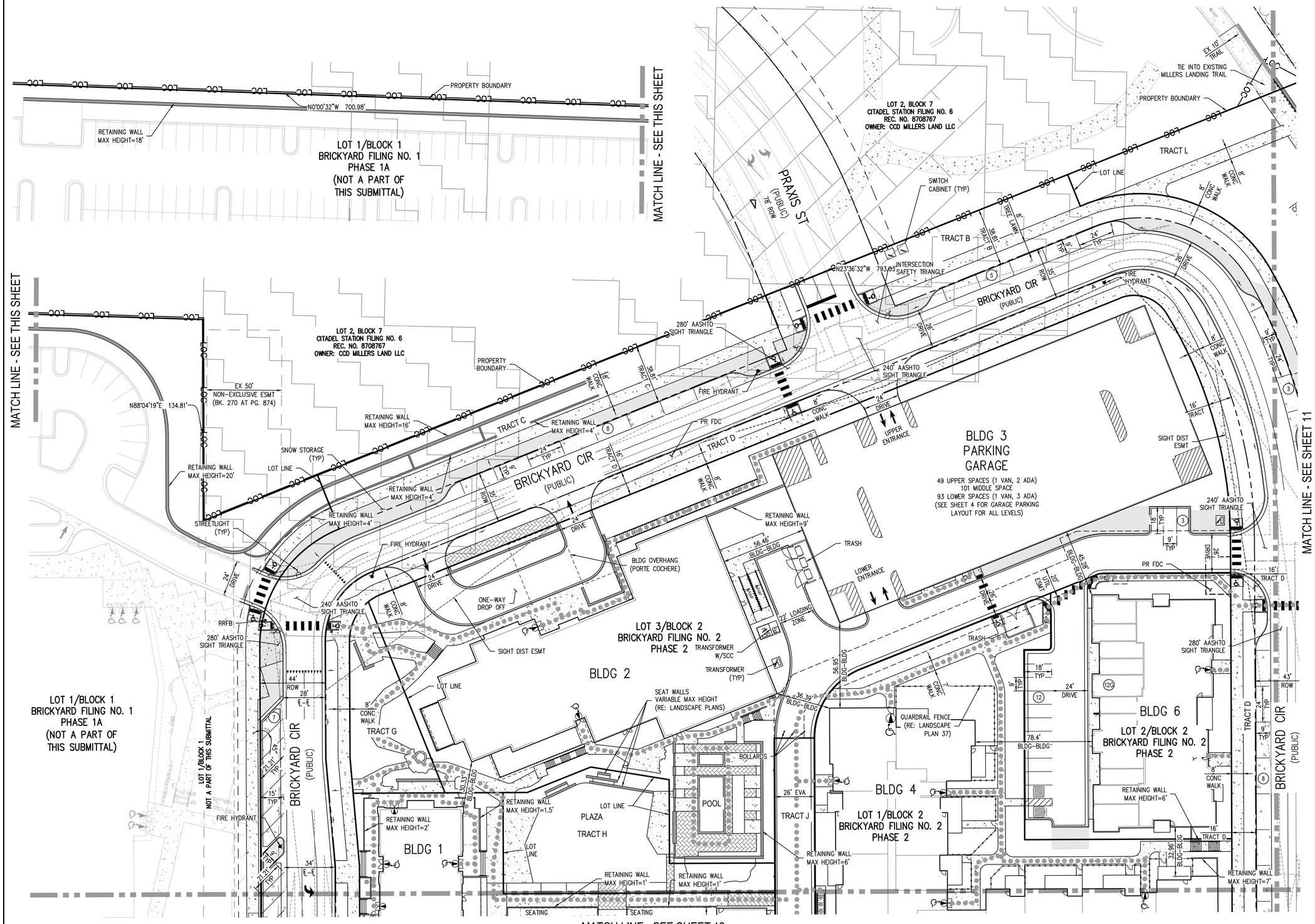
SITE PLAN INDEX
SHEET 9 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

PROJECT # 200726

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO





LEGEND:

- PROPERTY BOUNDARY
- LOT LINE
- PROPOSED EASEMENT
- EXISTING EASEMENT
- PROPOSED ACCESSIBLE (ADA) PATH
- PROPOSED CARPORT
- PROPOSED CONCRETE
- PROPOSED CONCRETE LOADING PAD
- PROPOSED ENHANCED PAVING
- PROPOSED UNIT PAVERS (RE: LANDSCAPE PLANS)
- PROPOSED RETAINING WALL
- GUARDRAIL FENCE (RE: LANDSCAPE SHEET 37)
- PARKING COUNT
- PROPOSED BUILDING ENTRANCE
- SNOW STORAGE AREAS
- ADA CURB RAMP
- FLOODPLAIN BOUNDARY
- MINOR SKYLINE AREA
- MODERATE SKYLINE AREA

NOTES:

1. REFER TO LANDSCAPE PLANS REGARDING PROPOSED PAVER WALKWAY SPECIFICATIONS
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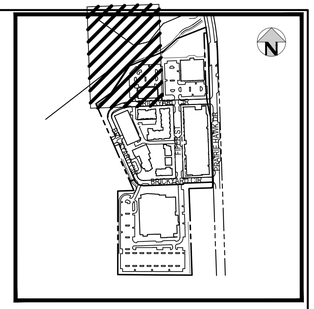
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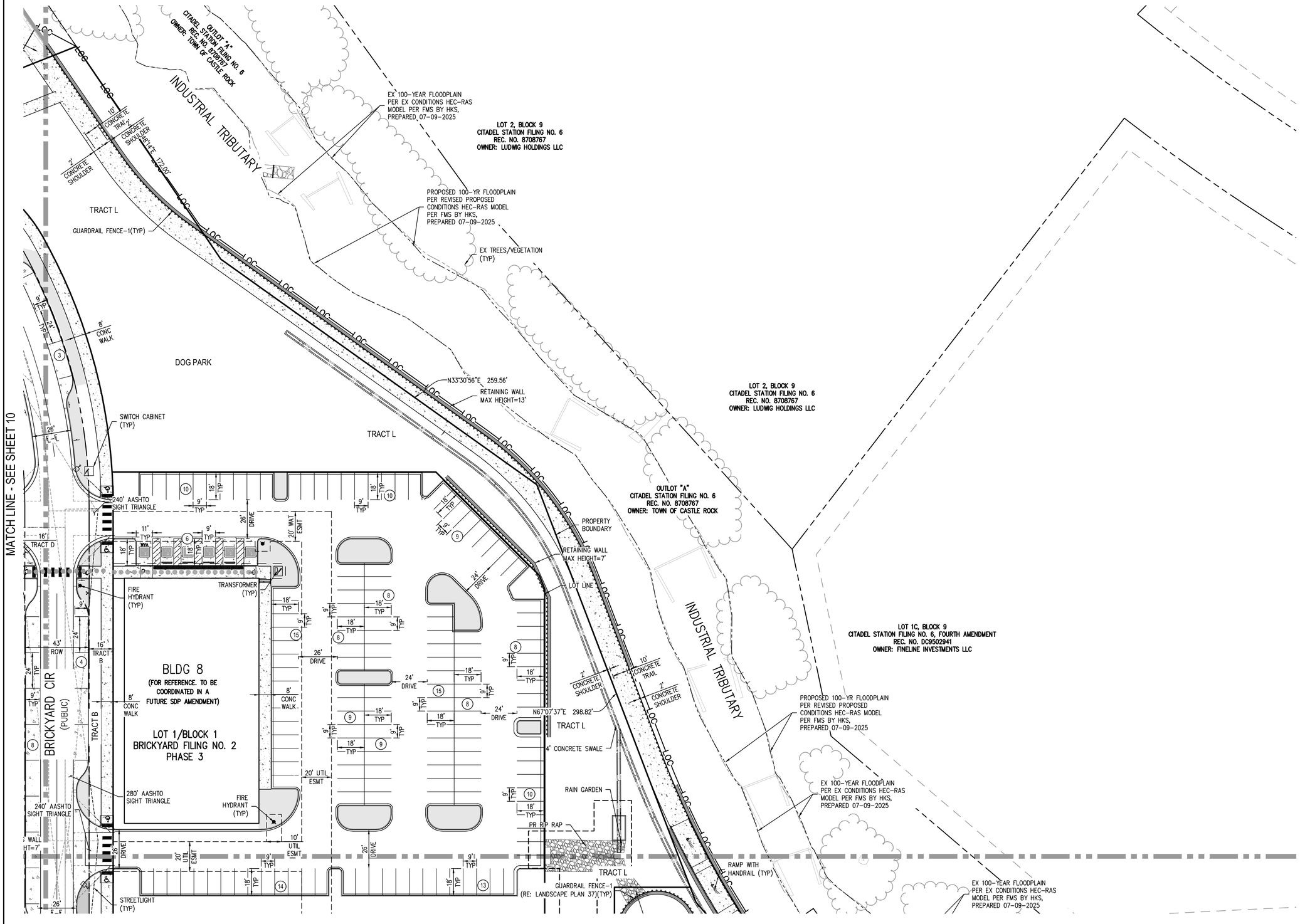
PROJECT # 200726

SITE PLAN
SHEET 10 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO





LEGEND:

- PROPERTY BOUNDARY
- LOT LINE
- PROPOSED EASEMENT
- EXISTING EASEMENT
- PROPOSED ACCESSIBLE (ADA) PATH
- PROPOSED CARPORT
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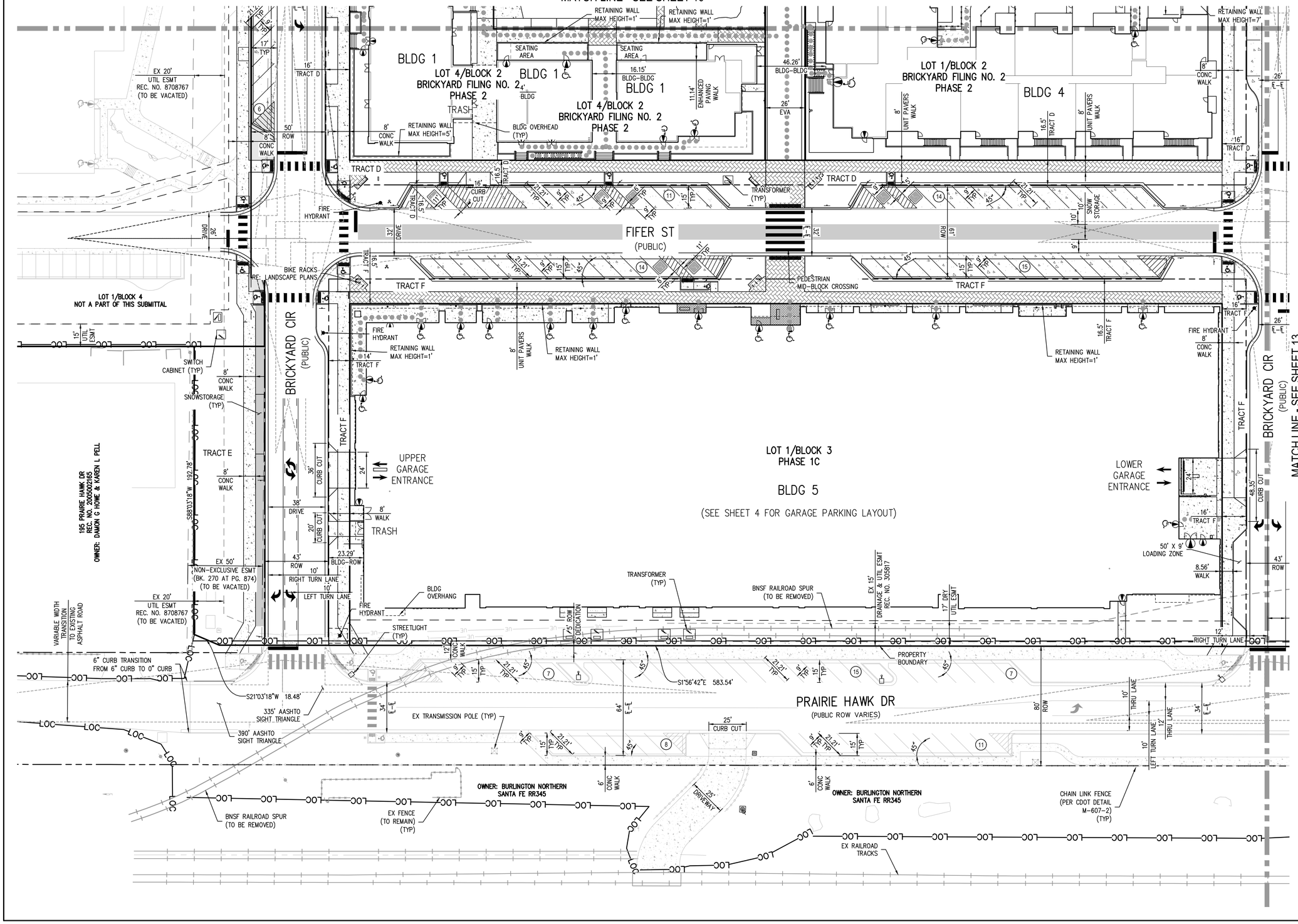
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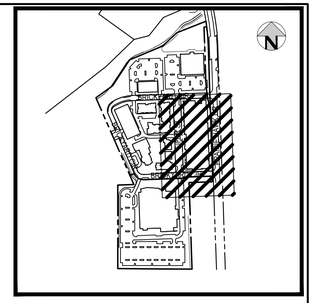
PROJECT # 200726

SITE PLAN
SHEET 11 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO





LEGEND:

- PROPERTY BOUNDARY
- LOT LINE
- PROPOSED EASEMENT
- EXISTING EASEMENT
- PROPOSED ACCESSIBLE (ADA) PATH
- PROPOSED CARPORT
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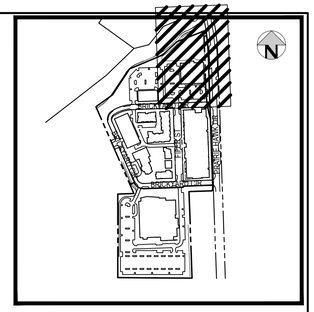
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SCALE: 1" = 30'

SITE PLAN
SHEET 12 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

PROJECT # 200726

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



MATCH LINE - SEE SHEET 11

MATCH LINE - SEE SHEET 12

BRICKYARD CIR (PUBLIC)

BLDG 7

LOT 2/BLOCK 1
BRICKYARD FILING NO. 2
PHASE 3

TRACT A
WQ/DETENTION POND

TRACT L

TRACT B

PRAIRIE HAWK DR
(PUBLIC ROW VARIES)

INDUSTRIAL TRIBUTARY

OUTLOT "A"
CITADEL STATION FILING NO. 6
REC. NO. 8708767
OWNER: TOWN OF CASTLE ROCK

LOT 1B BLOCK 9
CITADEL STATION FILING NO. 6 FOURTH AMENDMENT
REC. NO. DC9502941
OWNER: FRONT RANGE CONSTRUCTION SERVICES LLC

OWNER: BURLINGTON NORTHERN SANTA FE RR345

STREETLIGHT (TYP)
TRANSFORMER (TYP)
SNOW STORAGE (TYP)
SWITCH CABINET (TYP)
PARKING STRIPING (TYP)
TRASH
BLDG OVERHANG (TYP)
EX GAS REGULATION STATION (TO BE RELOCATED)
GARAGE EXTENTS
FIRE HYDRANT
PARKING GARAGE LOWER ENTRY
155' AASHTO STOP SIGHT TRIANGLE
335' AASHTO SIGHT TRIANGLE
LEFT TURN LANE
PROPERTY BOUNDARY
GUARDRAIL FENCE-1 (RE: LANDSCAPE PLAN 37)(TYP)
PR RIP RAP
RAMP WITH HANDRAIL (TYP)
RETAINING WALL MAX HEIGHT=11'
RETAINING WALL MAX HEIGHT=19'
RETAINING WALL MAX HEIGHT=12'
RETAINING WALL MAX HEIGHT=8'
RETAINING WALL MAX HEIGHT=14
RETAINING WALL MAX HEIGHT=26'
EX 100-YEAR FLOODPLAIN PER EX CONDITIONS HEC-RAS MODEL PER FMS BY HKS, PREPARED 07-09-2025
PROPOSED 100-YR FLOODPLAIN PER REVISED PROPOSED CONDITIONS HEC-RAS MODEL PER FMS BY HKS PREPARED 07-09-2025
EX TREES/VEGETATION (TYP)
EX 100-YEAR FLOODPLAIN
RIPRAP (TYP)
EX TRANSMISSION POLE (TYP)
CHAIN LINK FENCE (PER CDOT DETAIL M-607-2) (TYP)
VEHICULAR GUARDRAIL (PER CDOT DETAIL M-606-1)
TRAIL CONSTRUCTED TO THE GRADE SEPARATED PEDESTRIAN CULVERT
12' X 8' PEDESTRIAN/ DRAINAGE BOX CULVERT (SEE NOTE 24 ON SHEET 2)
EX 15' UTILITY AND DRAINAGE EASEMENT REC. NO. DC9502941
15' EX. ACCESS EASEMENT BK. 190 AT PG. 147 PORTION VACATED PER BK. 490 PG. 72 AND PG. 79
EX 15' DRAINAGE & UTIL ESMT REC. NO. 305817 (TO BE VACATED)
25' DRAINAGE ESMT
30' DRAINAGE ESMT
20' UTIL ESMT
10' UTIL ESMT
9' UTIL ESMT
3' PEDESTRIAN ESMT
N47°19'53"E 165.32'
S1°56'42"E 543.12'
L=155.57'
R=1725.89'
Δ=5°09'53"
L=49.61'
R=1754.20'
Δ=1°37'13"
24.27' BLDG ROW
43' ROW
80' ROW
16' TRACT B
44.09'
12' CONC WALK
8' CONC WALK
10' CONC WALK
6' CONC WALK
10' CONCRETE TRAIL
2' CONCRETE SHOULDER
12' CONC WALK (TYP)
15' ANGLED PARKING
12' LEFT TURN LANE
11' THRU LANE
6' BIKE LANE
12' CONCRETE MAINTENANCE ACCESS ROAD (TYP)

LEGEND:

- PROPERTY BOUNDARY
- LOT LINE
- PROPOSED EASEMENT
- EXISTING EASEMENT
- PROPOSED ACCESSIBLE (ADA) PATH
- PROPOSED CARPORT
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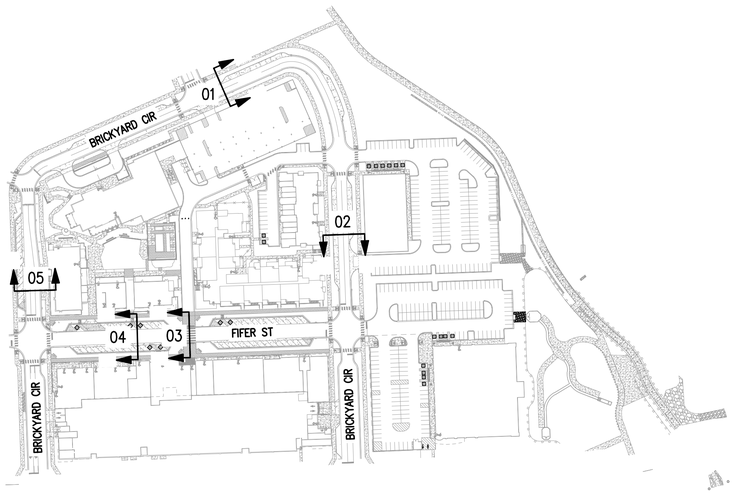
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PROJECT # 200726

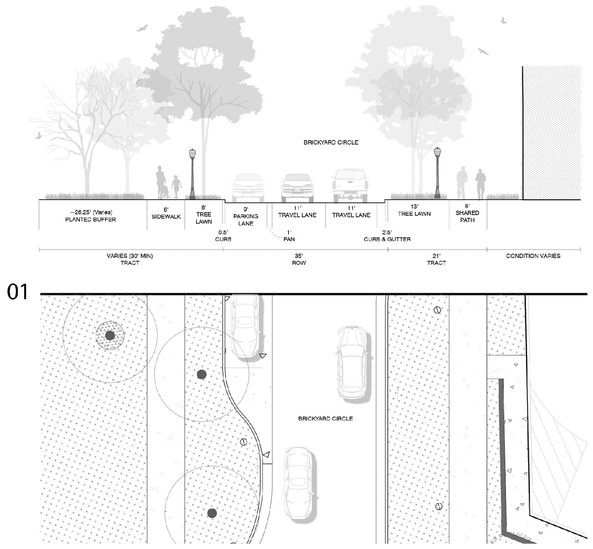
SITE PLAN
SHEET 13 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

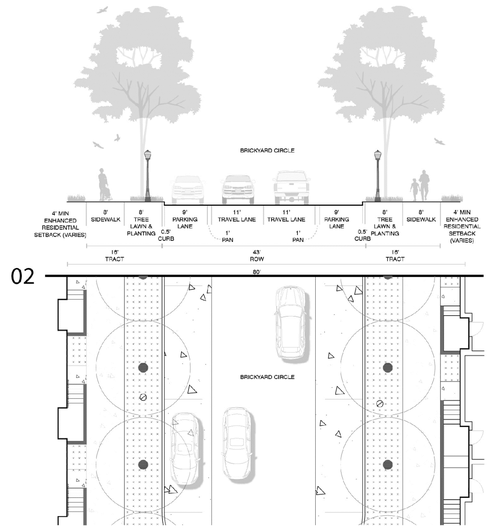
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TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
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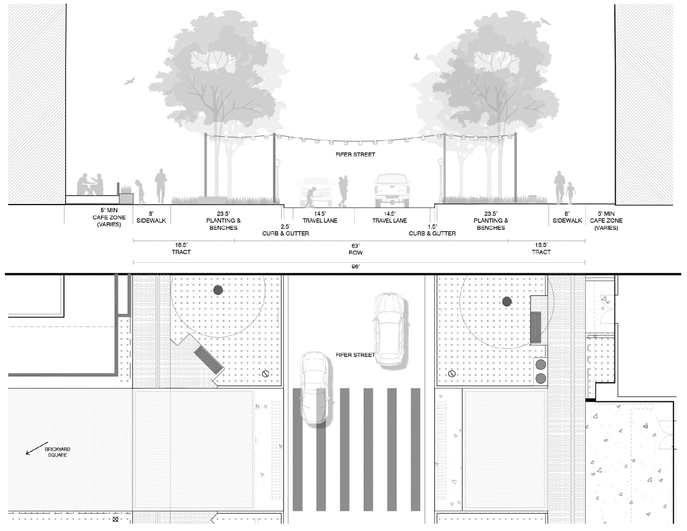
STREET SECTION - KEY PLAN
NTS



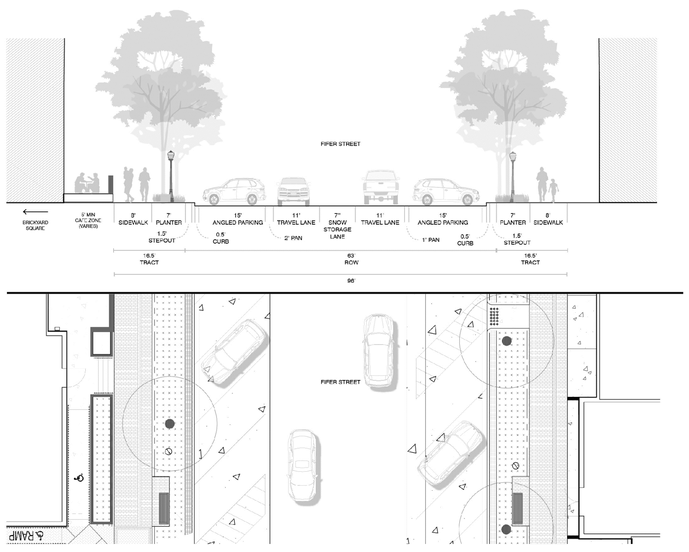
BRICKYARD CIR - PRAXIS ST ENTRANCE SECTION
NTS



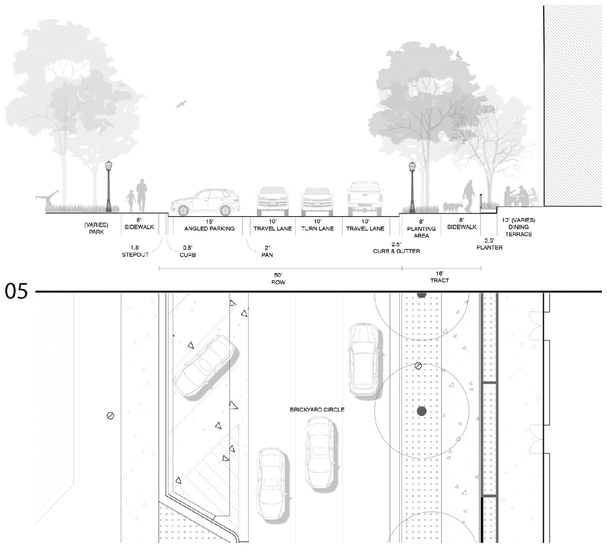
BRICKYARD CIR - AT NORTH RESIDENTIAL TYPICAL SECTION
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FIFER STREET - AT PEDESTRIAN CROSSING SECTION
NTS



FIFER STREET TYPICAL SECTION
NTS



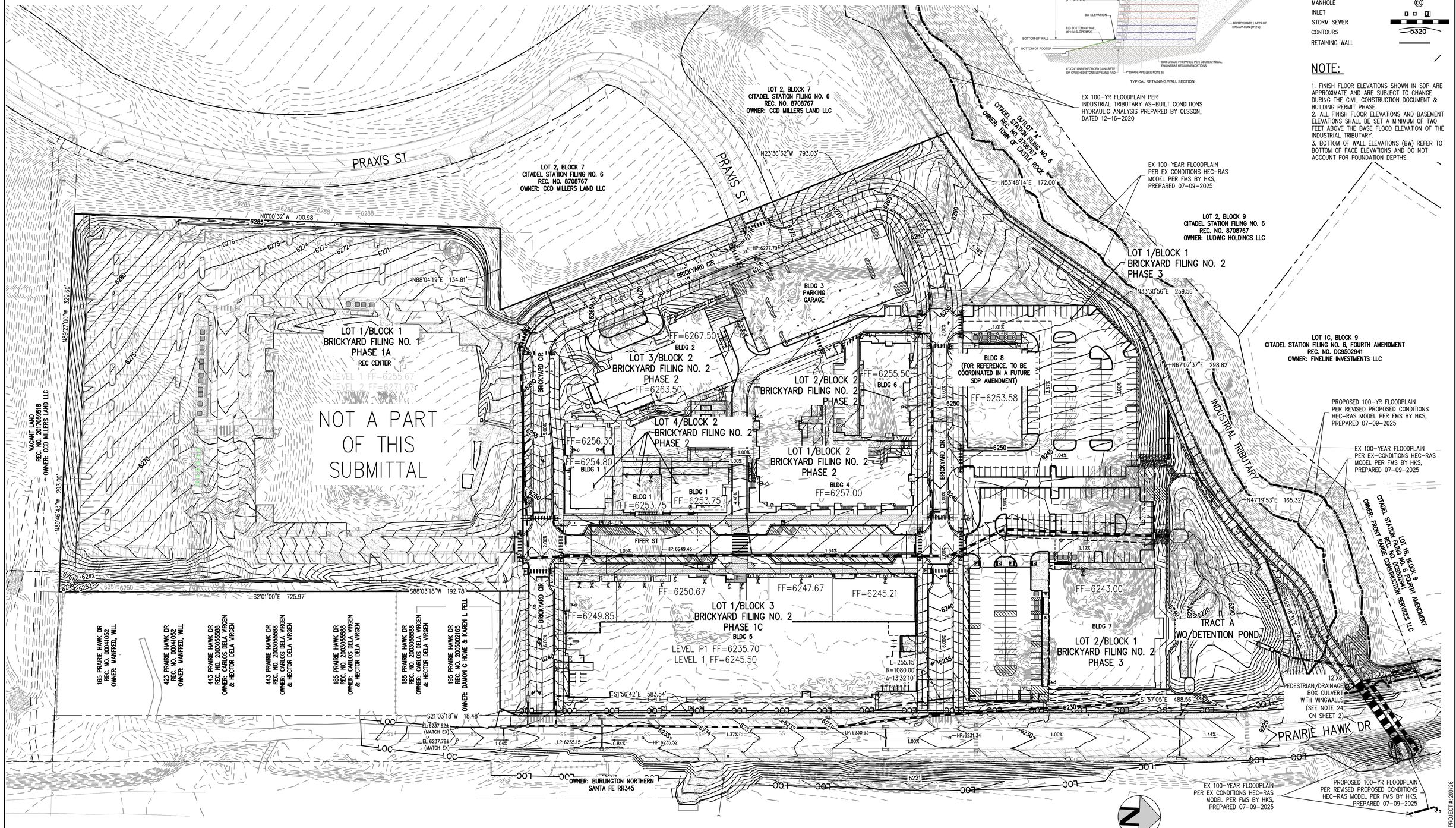
BRICKYARD CIR - AT CASTLE ROCK SPORTS CENTER TYPICAL SECTION
NTS

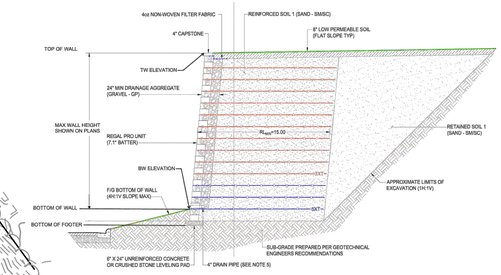
PROJECT # 230726

TYPICAL STREET SECTIONS
SHEET 14 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO





TYPICAL RETAINING WALL SECTION

LEGEND

	EX
MANHOLE	
STORM SEWER	ST
CONTOURS	5320

	PR
MANHOLE	
INLET	
STORM SEWER	
CONTOURS	5320
RETAINING WALL	

NOTE:

1. FINISH FLOOR ELEVATIONS SHOWN IN SDP ARE APPROXIMATE AND ARE SUBJECT TO CHANGE DURING THE CIVIL CONSTRUCTION DOCUMENT & BUILDING PERMIT PHASE.
2. ALL FINISH FLOOR ELEVATIONS AND BASEMENT ELEVATIONS SHALL BE SET A MINIMUM OF TWO FEET ABOVE THE BASE FLOOD ELEVATION OF THE INDUSTRIAL TRIBUTARY.
3. BOTTOM OF WALL ELEVATIONS (BW) REFER TO BOTTOM OF FACE ELEVATIONS AND DO NOT ACCOUNT FOR FOUNDATION DEPTHS.

SCALE: 1" = 70'

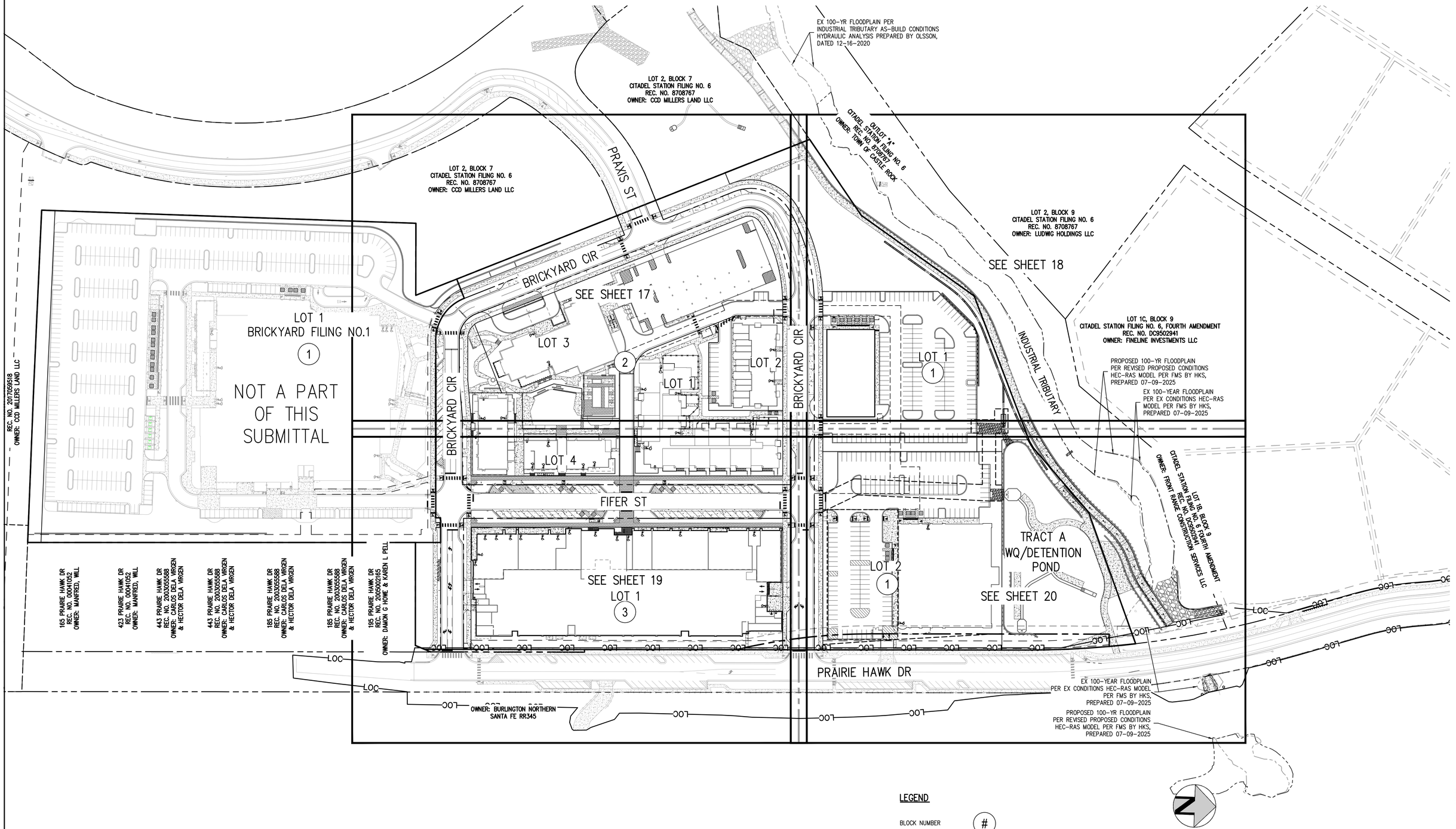
OVERALL GRADING PLAN
SHEET 15 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

PROJECT # 200726

SITE DEVELOPMENT PLAN

THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



LEGEND

BLOCK NUMBER (#)

MATCH LINE

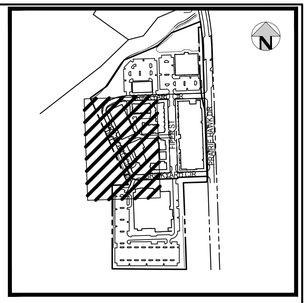
GENERAL GRADING PLAN INDEX
SHEET 16 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

PROJECT # 200726

SITE DEVELOPMENT PLAN

THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



ABBREVIATIONS	
BW	BOTTOM OF WALL (FG)
DR	DOOR
EX	EXISTING
FG	FINISHED GRADE
FL	FLOW LINE
GD	GARAGE DOOR
HP	HIGH POINT
LP	LOW POINT
PR	PROPOSED
PT	PATIO
RP	RAMP
SW	SIDEWALK
TBC	TOP/BACK OF CURB
TW	TOP OF WALL (FG)

NOTE:

1. TOP OF WALL (TW) ELEVATIONS ARE MEASURED TO THE TOP OF THE WALL CAP. BOTTOM OF WALL (BW) ELEVATIONS ARE MEASURED TO THE BOTTOM OF WALL THAT IS EXPOSED AND MEETS GRADE. THE BW SPOTS DO NOT INCLUDE THE FOUNDATION THICKNESS.

LEGEND

EX

- MANHOLE
- STORM SEWER
- CONTOURS 5320

PR

- MANHOLE
- INLET
- STORM SEWER
- CONTOURS 5320
- RETAINING WALL
- CARPORT
- ACCESSIBLE (ADA) PATH

30 0 30 60

SCALE: 1" = 30'

PROJECT # 20026

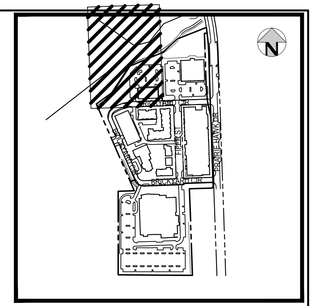
GENERAL GRADING PLAN
SHEET 17 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

MATCH LINE - SEE SHEET 18

MATCH LINE - SEE SHEET 19

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



EX 100-YEAR FLOODPLAIN PER EX CONDITIONS HEC-RAS MODEL PER FMS BY HKS, PREPARED 07-09-2025

PROPOSED 100-YR FLOODPLAIN PER REVISED PROPOSED CONDITIONS HEC-RAS MODEL PER FMS BY HKS, PREPARED 07-09-2025

OUTLOT "A" CITADEL STATION FILING NO. 6 REC. NO. 8708767 OWNER: TOWN OF CASTLE ROCK

EX 100-YEAR FLOODPLAIN PER EX CONDITIONS HEC-RAS MODEL PER FMS BY HKS, PREPARED 07-09-2025

TRACT L

BLDG 8
(FOR REFERENCE. TO BE COORDINATED IN A FUTURE SDP AMENDMENT)
FF=6253.58

LOT 1/BLOCK 1
BRICKYARD FILING NO. 2
PHASE 3

OUTLOT "A"
CITADEL STATION FILING NO. 6
REC. NO. 8708767
OWNER: TOWN OF CASTLE ROCK

INDUSTRIAL TRIBUTARY

LOT 2, BLOCK 9
CITADEL STATION FILING NO. 6
REC. NO. 8708767
OWNER: LUDWIG HOLDINGS LLC

PROPOSED 100-YR FLOODPLAIN PER REVISED PROPOSED CONDITIONS HEC-RAS MODEL PER FMS BY HKS, PREPARED 07-09-2025

LOT 1C, BLOCK 9
CITADEL STATION FILING NO. 6, FOURTH AMENDMENT
REC. NO. DC9502941
OWNER: FINELINE INVESTMENTS LLC

EX 100-YEAR FLOODPLAIN PER EX CONDITIONS HEC-RAS MODEL PER FMS BY HKS, PREPARED 07-09-2025

PR 100-YEAR FLOODPLAIN PER PR CONDITIONS HEC-RAS MODEL PER FMS BY HKS, PREPARED 07-09-2025

4' CONCRETE SWALE

RAIN GARDEN

RIP RAP

N53°48'14"E 172.00'

N33°30'56"E 259.56'

N67°07'37"E 298.82'

MATCH LINE - SEE SHEET 17

MATCH LINE - SEE SHEET 20

ABBREVIATIONS	
BW	BOTTOM OF WALL (FG)
DR	DOOR
EX	EXISTING
FG	FINISHED GRADE
FL	FLOW LINE
GD	GARAGE DOOR
HP	HIGH POINT
LP	LOW POINT
PR	PROPOSED
PT	PATIO
RP	RAMP
SW	SIDEWALK
TBC	TOP/BACK OF CURB
TW	TOP OF WALL (FG)

NOTE:

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LEGEND

EX

MANHOLE
STORM SEWER ST
CONTOURS 5320

PR

MANHOLE
INLET
STORM SEWER ST
CONTOURS 5320
RETAINING WALL
CARPORT
ACCESSIBLE (ADA) PATH

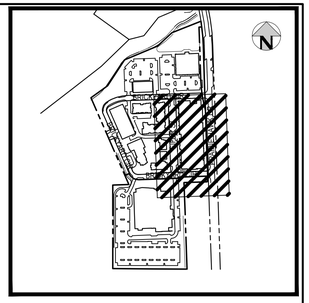
30 0 30 60
SCALE: 1" = 30'

PROJECT # 200726

GENERAL GRADING PLAN
SHEET 18 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



MATCH LINE - SEE SHEET 17

BRICKYARD CIR

BLDG 1
FF=6254.80
LOT 4/BLOCK 2
BRICKYARD FILING NO. 2
PHASE 2

BLDG 1
FF=6253.75

BLDG 1
FF=6253.75

LOT 1/BLOCK 2
BRICKYARD FILING NO. 2
PHASE 2

BLDG 4
FF=6257.00

TRACT D

FIFER ST

TRACT F

FF=6249.85

FF=6250.67

FF=6250.17

FF=6247.67

FF=6245.21

TRACT F

BLDG 5

LOT 1/BLOCK 3
BRICKYARD FILING NO. 2
PHASE 1C

LEVEL P1 FF=6235.70
LEVEL 1 FF=6245.50

TRACT E

195 PRAIRIE HAWK DR
REC. NO. 2005002165
OWNER: DAMON G HOWE & KAREN L PELL

S88°03'18"W 192.78'

S21°03'18"W 18.48'

PRAIRIE HAWK DR
(ROW VARIES)

OWNER: BURLINGTON NORTHERN
SANTA FE RR345

MATCH LINE - SEE SHEET 20

ABBREVIATIONS	
BW	BOTTOM OF WALL (FG)
DR	DOOR
EX	EXISTING
FG	FINISHED GRADE
℄	FLOW LINE
GD	GARAGE DOOR
HP	HIGH POINT
LP	LOW POINT
PR	PROPOSED
PT	PATIO
RP	RAMP
SW	SIDEWALK
TBC	TOP/BACK OF CURB
TW	TOP OF WALL (FG)

NOTE:

1. TOP OF WALL (TW) ELEVATIONS ARE MEASURED TO THE TOP OF THE WALL CAP. BOTTOM OF WALL (BW) ELEVATIONS ARE MEASURED TO THE BOTTOM OF WALL THAT IS EXPOSED AND MEETS GRADE. THE BW SPOTS DO NOT INCLUDE THE FOUNDATION THICKNESS.

LEGEND

EX

- MANHOLE
- STORM SEWER — ST
- CONTOURS — 5320

PR

- MANHOLE
- INLET
- STORM SEWER
- CONTOURS — 5320
- RETAINING WALL
- CARPORT
- ACCESSIBLE (ADA) PATH

30 0 30 60

SCALE: 1" = 30'

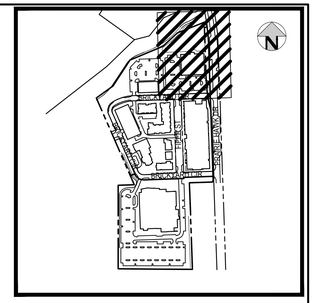
GENERAL GRADING PLAN
SHEET 19 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

PROJECT # 200726

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

MATCH LINE - SEE SHEET 18



MATCH LINE - SEE SHEET 19

LOT 2/BLOCK 1
BRICKYARD FILING NO. 2
PHASE 3

GARAGE L2 FF=6243.00
GARAGE L1 FF=6231.00

BLDG 7
FF=6243.00

TRACT L
4' CONCRETE SWALE

TRACT A
WQ/DETENTION POND

TRACT A

LOWER LEVEL GARAGE ENTRANCE

PROPOSED 100-YR FLOODPLAIN PER REVISED PROPOSED CONDITIONS HEC-RAS MODEL PER FMS BY HKS, PRREPARED 07-09-2025

EX 100-YEAR FLOODPLAIN PER EX CONDITIONS HEC-RAS MODEL PER FMS BY HKS, PREPARED 07-09-2025

OUTLOT "A"
CITADEL STATION FILING NO. 6
REC. NO. 8708767
OWNER: TOWN OF CASTLE ROCK

LOT 1B, BLOCK 9
CITADEL STATION FILING NO. 6 FOURTH AMENDMENT
REC. NO. D5302941
OWNER: FRONT RANGE CONSTRUCTION SERVICES LLC

PR POND OVERFLOW WEIR AND CONCRETE APRON

72" RCP CULVERT (10-YR MINOR STORM) (SEE NOTE 24 ON SHEET 2)

12'X8' PEDESTRIAN/DRAINAGE BOX CULVERT WITH WINGWALLS (SEE NOTE 24 ON SHEET 2)

OWNER: BURLINGTON NORTHERN SANTA FE RR345

EX 100-YEAR FLOODPLAIN PER EX CONDITIONS HEC-RAS MODEL PER FMS BY HKS, PREPARED 07-09-2025

PROPOSED 100-YR FLOODPLAIN PER REVISED PROPOSED CONDITIONS HEC-RAS MODEL PER FMS BY HKS, PREPARED 07-09-2025

N68°16'31"E 261.68'

L=155.57'
R=1725.27'
Δ=5°09'59"
S7°50'54"E 49.61'

LEGEND

	EX	PR
MANHOLE	●	◎
STORM SEWER	ST	
CONTOURS	5320	5320
INLET		
RETAINING WALL		
CARPORT		
ACCESSIBLE (ADA) PATH		

ABBREVIATIONS

BW	BOTTOM OF WALL (FG)
DR	DOOR
EX	EXISTING
FG	FINISHED GRADE
FL	FLOW LINE
GD	GARAGE DOOR
HP	HIGH POINT
LP	LOW POINT
PR	PROPOSED
PT	PATIO
RP	RAMP
SW	SIDEWALK
TBC	TOP/BACK OF CURB
TW	TOP OF WALL (FG)

NOTE:

1. TOP OF WALL (TW) ELEVATIONS ARE MEASURED TO THE TOP OF THE WALL CAP. BOTTOM OF WALL (BW) ELEVATIONS ARE MEASURED TO THE BOTTOM OF WALL THAT IS EXPOSED AND MEETS GRADE. THE BW SPOTS DO NOT INCLUDE THE FOUNDATION THICKNESS.

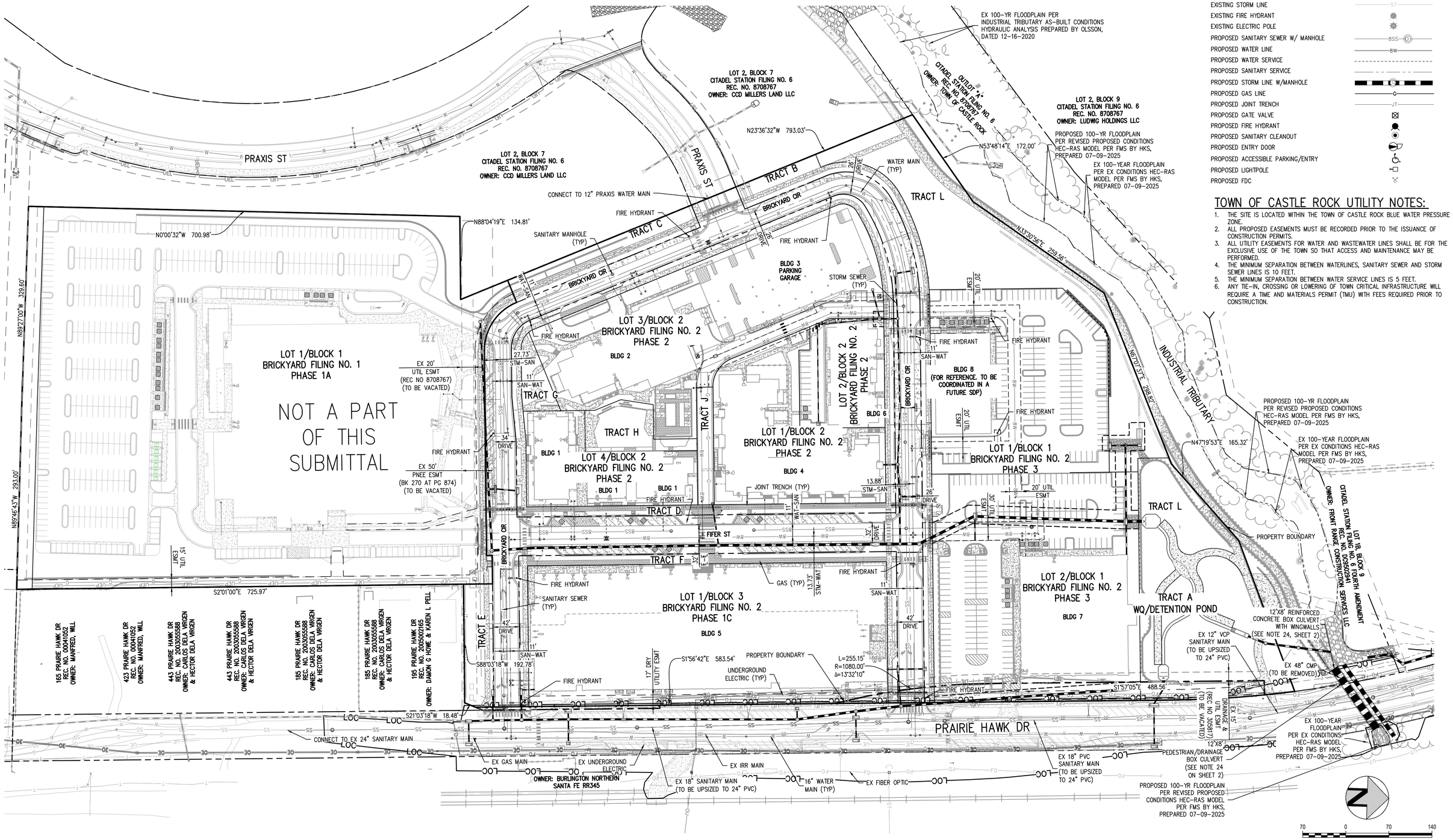
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SCALE: 1" = 30'

GENERAL GRADING PLAN
SHEET 20 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

PROJECT # 200726

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



LEGEND:

- PROPERTY BOUNDARY
- EXISTING SANITARY SEWER
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING FIBER OPTIC
- EXISTING STORM LINE
- EXISTING FIRE HYDRANT
- EXISTING ELECTRIC POLE
- PROPOSED SANITARY SEWER W/ MANHOLE
- PROPOSED WATER LINE
- PROPOSED WATER SERVICE
- PROPOSED SANITARY SERVICE
- PROPOSED STORM LINE W/MANHOLE
- PROPOSED GAS LINE
- PROPOSED JOINT TRENCH
- PROPOSED GATE VALVE
- PROPOSED FIRE HYDRANT
- PROPOSED SANITARY CLEANOUT
- PROPOSED ENTRY DOOR
- PROPOSED ACCESSIBLE PARKING/ENTRY
- PROPOSED LIGHTPOLE
- PROPOSED FDC

TOWN OF CASTLE ROCK UTILITY NOTES:

1. THE SITE IS LOCATED WITHIN THE TOWN OF CASTLE ROCK BLUE WATER PRESSURE ZONE.
2. ALL PROPOSED EASEMENTS MUST BE RECORDED PRIOR TO THE ISSUANCE OF CONSTRUCTION PERMITS.
3. ALL UTILITY EASEMENTS FOR WATER AND WASTEWATER LINES SHALL BE FOR THE EXCLUSIVE USE OF THE TOWN SO THAT ACCESS AND MAINTENANCE MAY BE PERFORMED.
4. THE MINIMUM SEPARATION BETWEEN WATERLINES, SANITARY SEWER AND STORM SEWER LINES IS 10 FEET.
5. THE MINIMUM SEPARATION BETWEEN WATER SERVICE LINES IS 5 FEET.
6. ANY TIE-IN, CROSSING OR LOWERING OF TOWN CRITICAL INFRASTRUCTURE WILL REQUIRE A TIME AND MATERIALS PERMIT (TMU) WITH FEES REQUIRED PRIOR TO CONSTRUCTION.

70 0 70 140
SCALE: 1" = 70'

OVERALL UTILITY PLAN
SHEET 21 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

PROJECT # 200726

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

PRAXIS ST
LOT 2, BLOCK 7
CITADEL STATION FILING NO. 6
REC. NO. 8708767
OWNER: CCD MILLERS LAND LLC
TRACT B
TRACT C
BRICKYARD CIR
SEE SHEET 23
BLDG 3
PARKING GARAGE
LOT 3/BLOCK 2
BRICKYARD FILING NO. 2
PHASE 2
BLDG 2
TRACT G
TRACT J
TRACT H
BLDG 4
LOT 2/BLOCK 2
BRICKYARD FILING NO. 2
PHASE 2
BLDG 6
LOT 4/BLOCK 2
BRICKYARD FILING NO. 2
PHASE 2
BLDG 1
LOT 5/BLOCK 2
BRICKYARD FILING NO. 2
PHASE 2
LOT 1/BLOCK 2
BRICKYARD FILING NO. 2
PHASE 2
TRACT D
FIFER ST
TRACT F
BLDG 5
SEE SHEET 25
LOT 1/BLOCK 3
BRICKYARD FILING NO. 2
PHASE 1C
TRACT E
LOT 1/BLOCK 1
BRICKYARD FILING NO. 1
PHASE 1A
NOT A PART
OF THIS
SUBMITTAL
VACANT LAND
REC. NO. 2017059518
OWNER: CCD MILLERS LAND LLC
165 PRAIRIE HAWK DR
REC. NO. 00041052
OWNER: MANFRED, WILL
423 PRAIRIE HAWK DR
REC. NO. 00041052
OWNER: MANFRED, WILL
443 PRAIRIE HAWK DR
REC. NO. 2003055588
OWNER: CARLOS DELA VIRGEN
& HECTOR DELA VIRGEN
443 PRAIRIE HAWK DR
REC. NO. 2003055588
OWNER: CARLOS DELA VIRGEN
& HECTOR DELA VIRGEN
185 PRAIRIE HAWK DR
REC. NO. 2003055588
OWNER: CARLOS DELA VIRGEN
& HECTOR DELA VIRGEN
185 PRAIRIE HAWK DR
REC. NO. 2003055588
OWNER: CARLOS DELA VIRGEN
& HECTOR DELA VIRGEN
195 PRAIRIE HAWK DR
REC. NO. 2005002165
OWNER: DAMON G HOWE & KAREN L PELL
LOC
OWNER: BURLINGTON NORTHERN
SANTA FE RR345
LOT 2, BLOCK 7
CITADEL STATION FILING NO. 6
REC. NO. 8708767
OWNER: CCD MILLERS LAND LLC
TRACT L
OUTLOT "A"
CITADEL STATION FILING NO. 6
REC. NO. 8708767
OWNER: TOWN OF CASTLE ROCK
LOT 2, BLOCK 9
CITADEL STATION FILING NO. 6
REC. NO. 8708767
OWNER: LUDWIG HOLDINGS LLC
SEE SHEET 24
LOT 1C, BLOCK 9
CITADEL STATION FILING NO. 6, FOURTH AMENDMENT
REC. NO. DC9502941
OWNER: FINELINE INVESTMENTS LLC
INDUSTRIAL TRIBUTARY
BLDG 8
LOT 1/BLOCK 1
BRICKYARD FILING NO. 2
PHASE 3
TRACT L
LOT 2/BLOCK 1
BRICKYARD FILING NO. 2
PHASE 3
BLDG 7
TRACT A
WQ/DETENTION POND
SEE SHEET 26
PRAIRIE HAWK DR

LEGEND

MATCH LINE

N

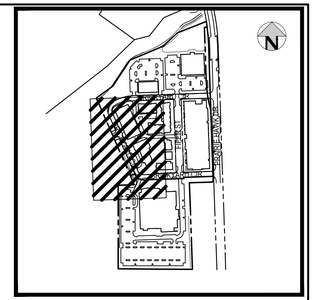
80 0 80 160
SCALE: 1" = 80'

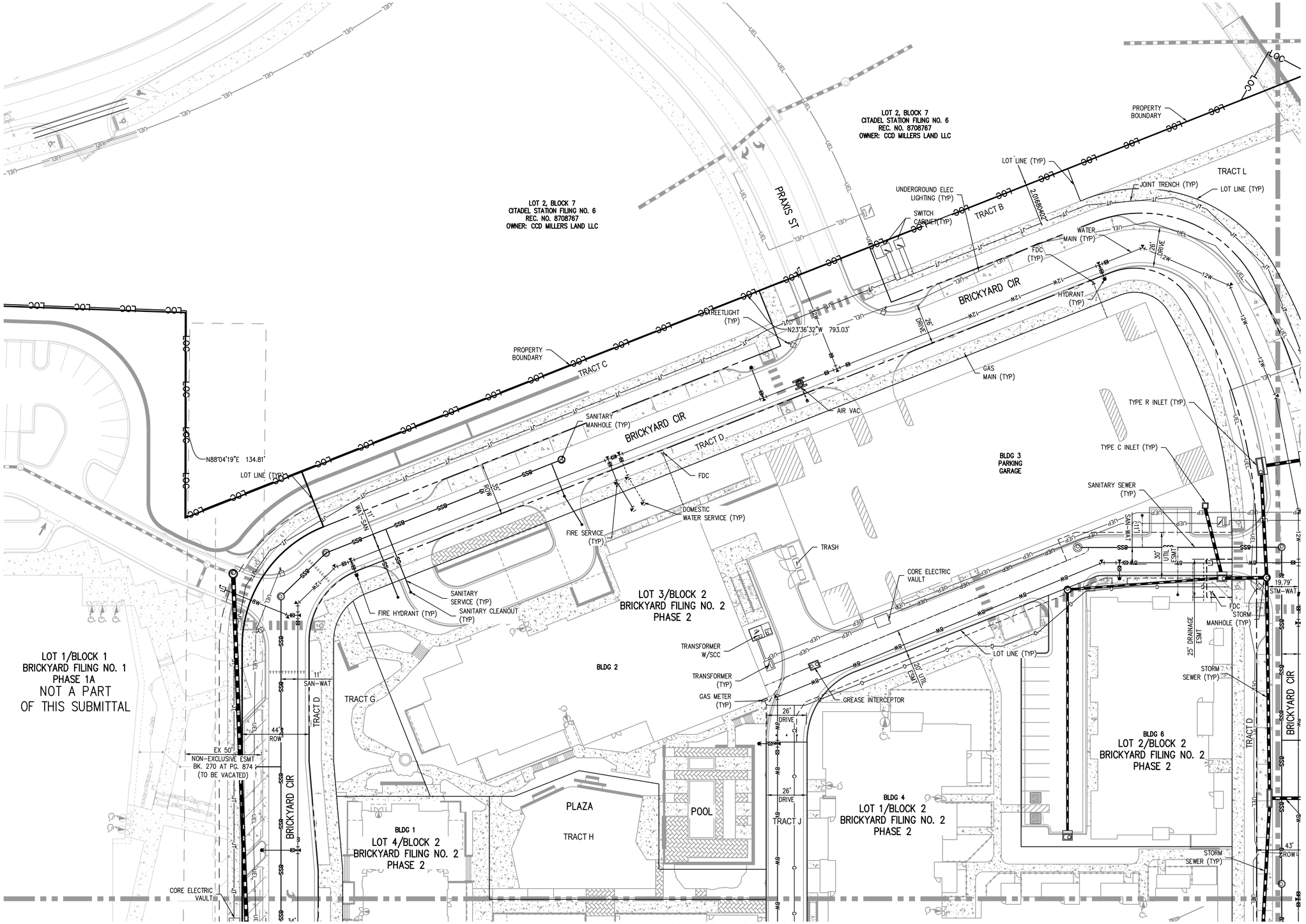
GENERAL UTILITY PLAN INDEX
SHEET 22 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

PROJECT # 200726

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO





LEGEND:

- PROPERTY BOUNDARY
- EXISTING 100-YR FLOODPLAIN
- PROPOSED 100-YR FLOODPLAIN
- EXISTING SANITARY SEWER — SS
- EXISTING WATER LINE — W
- EXISTING RAW WATER LINE — RW
- EXISTING GAS LINE — G
- EXISTING OVERHEAD ELECTRIC — OE
- EXISTING FIBER OPTIC — FO
- EXISTING STORM LINE — ST
- EXISTING FIRE HYDRANT
- EXISTING ELECTRIC POLE
- EXISTING LIGHTPOLE
- PROPOSED SANITARY SEWER W/ MANHOLE — SSS
- PROPOSED WATER LINE — 8W
- PROPOSED WATER SERVICE
- PROPOSED SANITARY SERVICE
- PROPOSED STORM LINE W/MANHOLE
- PROPOSED FIBER OPTIC — FO
- PROPOSED UNDERGROUND ELECTRIC PRIMARY — UEP
- PROPOSED UNDERGROUND ELECTRIC LIGHTING — UEL
- PROPOSED GAS LINE — G
- PROPOSED JOINT TRENCH — JT
- PROPOSED GATE VALVE
- PROPOSED FIRE HYDRANT
- PROPOSED FDC
- PROPOSED SANITARY CLEANOUT
- PROPOSED ENTRY DOOR
- PROPOSED ACCESSIBLE PARKING/ENTRY
- PROPOSED LIGHTPOLE
- PROPOSED TRANSFORMER
- PROPOSED SWITCH CABINET
- PROPOSED VAULT
- PROPOSED GREASE INTERCEPTOR
- PROPOSED GAS METER

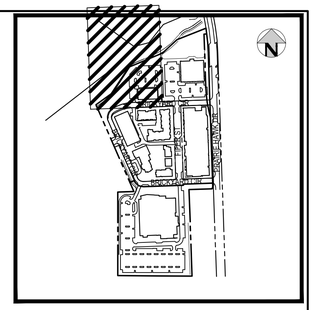
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SCALE: 1" = 30'

GENERAL UTILITY PLAN
SHEET 23 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

PROJECT # 200726

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



MATCH LINE - SEE SHEET 23

OUTLOT "A"
CITADEL STATION FILING NO. 6
REC. NO. 8708767
OWNER: TOWN OF CASTLE ROCK

PROPOSED 100-YR FLOODPLAIN
PER REVISED PROPOSED CONDITIONS
HEC-RAS MODEL PER FMS BY HKS,
PREPARED 07-09-2025

EX 100-YR FLOODPLAIN
PER EX CONDITIONS HEC-RAS
MODEL PER FMS BY HKS,
PREPARED 07-09-2025

INDUSTRIAL TRIBUTARY

TRACT L

LOT 2, BLOCK 9
CITADEL STATION FILING NO. 6
REC. NO. 8708767
OWNER: LUDWIG HOLDINGS LLC

UNDERGROUND ELEC
LIGHTING (TYP)

JOINT TRENCH (TYP)

SWITCH
CABINET (TYP)

WATER MAIN
(TYP)

FIRE HYDRANT
(TYP)

19.79'
STM-WAT

UNDERGROUND
ELEC

TRANSFORMER
(TYP)

HYDRANT
(TYP)

FDC
(TYP)

BLDG 8
(FOR REFERENCE. TO BE COORDINATED
IN A FUTURE SDP)

BRICKYARD CIR

TRACT B

SANITARY
SERVICE (TYP)

VALLEY STORM
INLET (TYP)

STORM
SEWER(TYP)

FIRE HYDRANT
(TYP)

43'
ROW

26'
DRIVE

20'
UTIL
ESMT

24'
DRIVE

N67°07'37"E 298.82'

LOT LINE (TYP)

LOT 1/BLOCK 1
BRICKYARD FILING NO. 2
PHASE 3

TRACT L

RAIN GARDEN

RIP RAP

N33°30'56"E 259.56'

OUTLOT "A"
CITADEL STATION FILING NO. 6
REC. NO. 8708767
OWNER: TOWN OF CASTLE ROCK

EX 100-YR FLOODPLAIN
PER EX CONDITIONS HEC-RAS
MODEL PER FMS BY HKS,
PREPARED 07-09-2025

INDUSTRIAL TRIBUTARY

LOT 1C, BLOCK 9
CITADEL STATION FILING NO. 6, FOURTH AMENDMENT
REC. NO. DC9502941
OWNER: FINELINE INVESTMENTS LLC

PROPOSED 100-YR FLOODPLAIN
PER REVISED PROPOSED CONDITIONS
HEC-RAS MODEL PER FMS BY HKS,
PREPARED 07-09-2025

EX 100-YR FLOODPLAIN
PER EX CONDITIONS HEC-RAS
MODEL PER FMS BY HKS,
PREPARED 07-09-2025

MATCH LINE - SEE SHEET 26

LEGEND:

- PROPERTY BOUNDARY
- EXISTING 100-YR FLOODPLAIN
- PROPOSED 100-YR FLOODPLAIN
- EXISTING SANITARY SEWER — SS
- EXISTING WATER LINE — W
- EXISTING RAW WATER LINE — RW
- EXISTING GAS LINE — G
- EXISTING OVERHEAD ELECTRIC — OE
- EXISTING FIBER OPTIC — FO
- EXISTING STORM LINE — ST
- EXISTING FIRE HYDRANT
- EXISTING ELECTRIC POLE
- EXISTING LIGHTPOLE
- PROPOSED SANITARY SEWER W/ MANHOLE — SSS
- PROPOSED WATER LINE — SW
- PROPOSED WATER SERVICE
- PROPOSED SANITARY SERVICE
- PROPOSED STORM LINE W/MANHOLE
- PROPOSED FIBER OPTIC — FO
- PROPOSED UNDERGROUND ELECTRIC PRIMARY — UEP
- PROPOSED UNDERGROUND ELECTRIC LIGHTING — UEL
- PROPOSED GAS LINE — G
- PROPOSED JOINT TRENCH — JT
- PROPOSED GATE VALVE
- PROPOSED FIRE HYDRANT
- PROPOSED FDC
- PROPOSED SANITARY CLEANOUT
- PROPOSED ENTRY DOOR
- PROPOSED ACCESSIBLE PARKING/ENTRY
- PROPOSED LIGHTPOLE
- PROPOSED TRANSFORMER
- PROPOSED SWITCH CABINET
- PROPOSED VAULT
- PROPOSED GREASE INTERCEPTOR — GI
- PROPOSED GAS METER

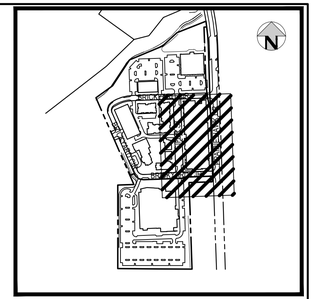
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SCALE: 1" = 30'

PROJECT # 200726

GENERAL UTILITY PLAN
SHEET 24 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



MATCH LINE - SEE SHEET 23

LOT 1/BLOCK 4
PHASE 1A
NOT A PART
OF THIS SUBMITTAL

CORE ELECTRIC VAULT

34' DRIVE

BLDG 1

LOT 4/BLOCK 2
BRICKYARD FILING NO. 2
PHASE 2

BLDG 1

BLDG 1

GAS MAIN (TYP)

TRANSFORMER (TYP)

LOT 1/BLOCK 2
BRICKYARD FILING NO. 2
PHASE 2

BLDG 4

ROOF DRAIN CONNECTION (TYP)

UNDERGROUND ELEC LIGHTING (TYP)

GAS MAIN (TYP)

SANITARY SERVICE (TYP)

SANITARY SERVICE LINE (TYP)

JOINT TRENCH (TYP)

FIRE HYDRANT (TYP)

WATER SERVICE (TYP)

TRACT D

JOINT TRENCH (TYP)

STRUCTURAL SOIL DRAINAGE CONNECTION (TYP)

STORM SEWER (TYP)

SANITARY MANHOLE (TYP)

11' WAT-SAN

32' E-E

FIFER ST

WATER MAIN (TYP)

STORM SEWER (TYP)

TRACT F

TYPE R INLET (TYP)

STORM MANHOLE (TYP)

TRANSFORMER (TYP)

FDC (TYP)

FIRE HYDRANT (TYP)

LANDSCAPE METER (TYP)

SWITCH CABINET (TYP)

EX OVERHEAD ELEC (TO REMAIN) (TYP)

SANITARY SEWER (TYP)

BRICKYARD CIR

TRACT F

EX 50' NON-EXCLUSIVE ESMT BK. 270 AT PG. 874 (TO BE VACATED)

42' DRIVE

LOT 1/BLOCK 3
BRICKYARD FILING NO. 2
PHASE 1C

LOT LINE (TYP)

BLDG 5

195 PRAIRIE HAWK DR
REC. NO. 2005002165
OWNER: DAMON G HOWE & KAREN L PELL

S89°03'18"W 182.78'

TRACT E

11' SAN-WAT

SANITARY SERVICE (TYP)

STORM SEWER(TYP)

DOMESTIC WATER SERVICE (TYP)

EX SWITCH CABINET

TRANSFORMER (TYP)

17' DRY UTILITY ESMT

EX 15' UTIL ESMT (REC NO 2023023403)

UNDERGROUND ELECTRIC (TYP)

PROPERTY BOUNDARY

ROOF DRAIN CONNECTION (TYP)

PRAXIS STORM SEWER (TYP)

STORM SEWER (TYP)

S1°56'42"E 686.78'

EX 18" SANITARY MAIN (TO BE REPLACED)

EX LIGHT POLE (TO BE REMOVED)

STORM SEWER (TYP)

S21°03'18"W 18.48'

CONNECTION TO OFF-SITE SAN MAIN

PRAIRIE HAWK DR
(ROW VARIES)

WATER MAIN (TYP)

24" SANITARY SEWER (TYP)

EX SANITARY MANHOLE (TO BE REPLACED)

EX RW WATER MAIN (TO REMAIN)

EX UNDERGROUND ELECTRIC (TO REMAIN)

EX FIBER OPTIC (TO REMAIN)

EX OVERHEAD ELECTRIC TRANSMISSION MAIN

OWNER: BURLINGTON NORTHERN SANTA FE RR345

MATCH LINE - SEE SHEET 26

LEGEND:

- PROPERTY BOUNDARY
- EXISTING 100-YR FLOODPLAIN
- PROPOSED 100-YR FLOODPLAIN
- EXISTING SANITARY SEWER
- EXISTING WATER LINE
- EXISTING RAW WATER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING FIBER OPTIC
- EXISTING STORM LINE
- EXISTING FIRE HYDRANT
- EXISTING ELECTRIC POLE
- EXISTING LIGHTPOLE
- PROPOSED SANITARY SEWER W/ MANHOLE
- PROPOSED WATER LINE
- PROPOSED WATER SERVICE
- PROPOSED SANITARY SERVICE
- PROPOSED STORM LINE W/MANHOLE
- PROPOSED FIBER OPTIC
- PROPOSED UNDERGROUND ELECTRIC PRIMARY
- PROPOSED UNDERGROUND ELECTRIC LIGHTING
- PROPOSED GAS LINE
- PROPOSED JOINT TRENCH
- PROPOSED GATE VALVE
- PROPOSED FIRE HYDRANT
- PROPOSED FDC
- PROPOSED SANITARY CLEANOUT
- PROPOSED ENTRY DOOR
- PROPOSED ACCESSIBLE PARKING/ENTRY
- PROPOSED LIGHTPOLE
- PROPOSED TRANSFORMER
- PROPOSED SWITCH CABINET
- PROPOSED VAULT
- PROPOSED GREASE INTERCEPTOR
- PROPOSED GAS METER

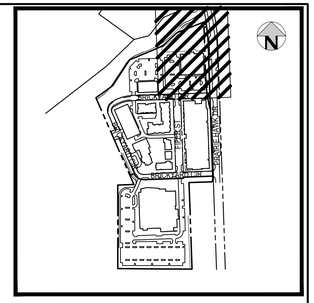
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SCALE: 1" = 30'

GENERAL UTILITY PLAN
SHEET 25 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

PROJECT # 200726

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



MATCH LINE - SEE SHEET 24

MATCH LINE - SEE SHEET 25

BRICKYARD CIR

TRACT B

26' DRIVE

20' UTIL ESMT

JOINT TRENCH (TYP)

FIRE HYDRANT (TYP)

TRANSFORMER (TYP)

SWITCH CABINET (TYP)

20' UTIL ESMT

30' DRAINAGE ESMT

30' UTIL ESMT

42' DRIVE

STORM SEWER (TYP)

WATER MAIN (TYP)

SANITARY SERVICE

UNDERGROUND ELEC LIGHTING (TYP)

LOT LINE (TYP)

11' SAN-WAT

UNDERGROUND ELECTRIC (TYP)

42' DRIVE

SANITARY SEWER (TYP)

43' ROW

STORM SEWER (TYP)

EX SWITCH CABINET (TYP)(TO BE RELOCATED)

TYPE R INLET (TYP)

FIRE HYDRANT (TYP)

SANITARY MANHOLE (TYP)

EX SANITARY MANHOLE (TO BE REPLACED)

WATER MAIN (TYP)

LANDSCAPE DRAIN (TYP)

POND FOREBAY (TYP)

TRACT A
WQ/DETENTION POND

MAINTENANCE ACCESS ROAD 12'

BLDG 7
LOT 2/BLOCK 1
BRICKYARD FILING NO. 2
PHASE 3

EX STORM SEWER (TO BE REMOVED)

EX 15' DRY UTIL ESMT (REC NO 2023023403) (TO BE VACATED)

PR STORM SEWER(TYP)

DRAINAGE ESMT

EX FIBER OPTIC (TO BE RELOCATED)

UNDERGROUND ELECTRIC (TYP)

EX GAS REGULATION STATION (TO BE RELOCATED)

S1°56'42"E 439.88'

PRAIRIE HAWK DR
(ROW VARIES)

110' ROW

EX RW WATER MAIN (TO REMAIN)

EX WATER MAIN (TO REMAIN)

EX UNDERGROUND ELECTRIC (TO REMAIN)

EX OVERHEAD ELECTRIC TRANSMISSION MAIN

EX 18" SANITARY SEWER (TO BE REPLACED)

OWNER: BURLINGTON NORTHERN SANTA FE RR345

TRICKLE CHANNEL

POND OUTLET STRUCTURE

EX 15' DRY UTIL ESMT (REC NO 2023023403) (TO BE VACATED)

PROPERTY BOUNDARY

L=49.61'
R=1754.20'
Δ=1°37'13"

L=155.57'
R=1726.19'
Δ=5°09'49"

EX SANITARY MANHOLE (TO BE REPLACED)

PR 24" SANITARY SEWER (TYP)

EX GATE VALVE (TO REMAIN)

EX UNDERGROUND TELE (TO REMAIN) (TYP)

INDUSTRIAL TRIBUTARY

PROPERTY BOUNDARY

EX 100-YR FLOODPLAIN PER EX CONDITIONS HEC-RAS MODEL PER FMS BY HKS, PREPARED 07-09-2025

PROPOSED 100-YR FLOODPLAIN PER REVISED PROPOSED CONDITIONS HEC-RAS MODEL PER FMS BY HKS, PREPARED 07-09-2025

LOT 1B, BLOCK 9
CITADEL STATION FILING NO. 6 FORTH AMENDMENT
REC. NO. D3890128
OWNER: FRONT RANGE CONSTRUCTION SERVICES LLC

OUTLOT "A"
CITADEL STATION FILING NO. 6
REC. NO. 8708767
OWNER: TOWN OF CASTLE ROCK

EX 100-YR FLOODPLAIN PER EX CONDITIONS HEC-RAS MODEL PER FMS BY HKS, PREPARED 07-09-2025

POND OVERFLOW WEIR AND CONCRETE APRON

RIPRAP (TYP)

72" RCP CULVERT (10-YR MINOR STORM) (SEE NOTE 24 ON SHEET 2)

EX SANITARY MANHOLE (TO BE REPLACED)

12'X8' PEDESTRIAN/DRAINAGE BOX CULVERT WITH WINGWALLS (SEE NOTE 24 ON SHEET 2)

EX 100-YR FLOODPLAIN PER EX CONDITIONS HEC-RAS MODEL PER FMS BY HKS, PREPARED 07-09-2025

PROPOSED 100-YR FLOODPLAIN PER REVISED PROPOSED CONDITIONS HEC-RAS MODEL PER FMS BY HKS, PREPARED 07-09-2025

LEGEND:

- PROPERTY BOUNDARY
- EXISTING 100-YR FLOODPLAIN
- PROPOSED 100-YR FLOODPLAIN
- EXISTING SANITARY SEWER
- EXISTING WATER LINE
- EXISTING RAW WATER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING FIBER OPTIC
- EXISTING STORM LINE
- EXISTING FIRE HYDRANT
- EXISTING ELECTRIC POLE
- EXISTING LIGHTPOLE
- PROPOSED SANITARY SEWER W/ MANHOLE
- PROPOSED WATER LINE
- PROPOSED WATER SERVICE
- PROPOSED SANITARY SERVICE
- PROPOSED STORM LINE W/MANHOLE
- PROPOSED GAS LINE
- PROPOSED JOINT TRENCH
- PROPOSED GATE VALVE
- PROPOSED FIRE HYDRANT
- PROPOSED FDC
- PROPOSED SANITARY CLEANOUT
- PROPOSED ENTRY DOOR
- PROPOSED ACCESSIBLE PARKING/ENTRY
- PROPOSED LIGHTPOLE
- PROPOSED TRANSFORMER
- PROPOSED SWITCH CABINET
- PROPOSED VAULT
- PROPOSED GREASE INTERCEPTOR
- PROPOSED GAS METER

30 0 30 60
SCALE: 1" = 30'

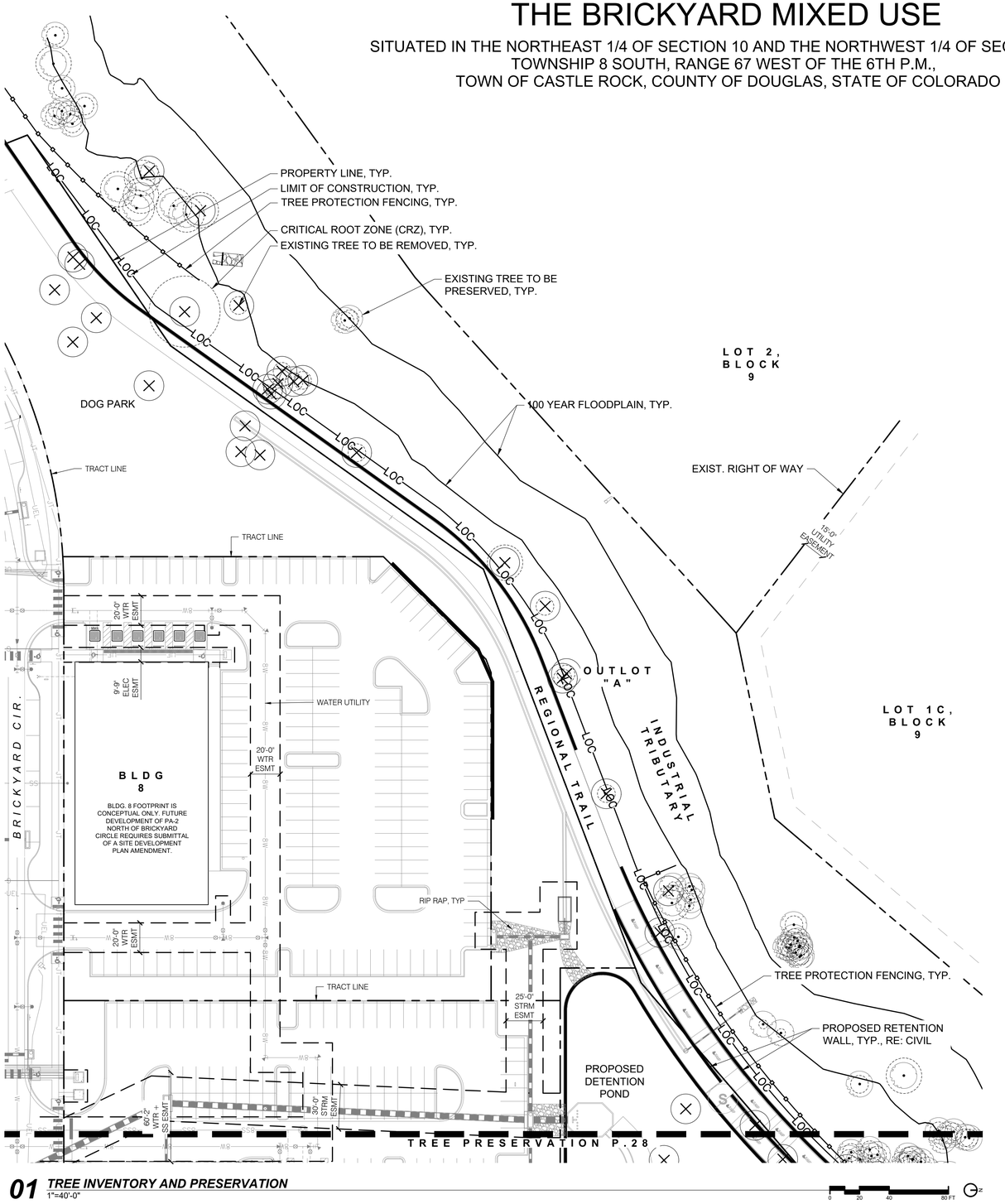
PROJECT # 200726

GENERAL UTILITY PLAN
SHEET 26 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN

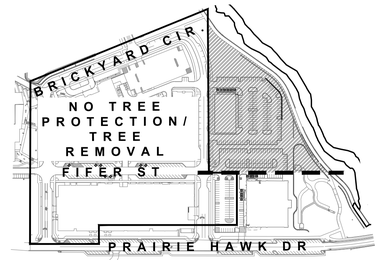
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



01 ***TREE INVENTORY AND PRESERVATION***
1"=40'-0"

0 20 40 80 FT



KEY PLAN
N.T.S.

NOTES:
1. ARBORIST TO FIELD VERIFY NEEDED CLEARANCE FROM EXISTING UTILITIES & HEALTH OF TREE PRIOR TO REMOVAL.
2. DRAWINGS BELOW SHOW PROPOSED CONDITIONS OF FUTURE DEVELOPMENT.
3. LIMIT OF CONSTRUCTION LINE HAS BEEN OFFSET BY 5' FOR LEGIBILITY OF PROPERTY LINE ON ALL SHEETS.
4. PROPOSED TREE PROTECTION LOCATIONS AND TOTALS ARE ESTIMATES AND MAY NOT REFLECT FINAL RESULTS DUE TO CHANGES IN GRADING, UTILITIES, AND/OR TREE HEALTH

TREE INVENTORY & PRESERVATION TOTALS:

-	TOTAL EX TREES ON SITE:	168
-	TREES TO BE PRESERVED:	69
-	TREE TO BE SPADE	12
-	TREES TO DEMO:	87

TREE INVENTORY & PRESERVATION LEGEND

EXISTING TREE TO BE PRESERVED & ESTIMATED CRITICAL ROOT ZONE (CRZ)

EXISTING TREE TO BE REMOVED

S — TREE TO BE SPADE AND MOVED OFF SITE

= TREE NUMBER TO BE REMOVED

RIGHT OF WAY

LOC — LIMIT OF CONSTRUCTION

TREE PROTECTION FENCING

100 YR FLOODPLAIN

EASEMENT

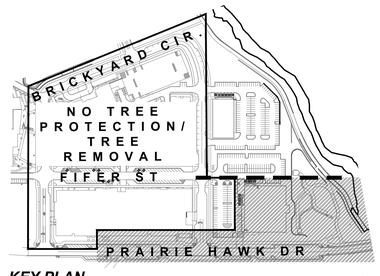
PROPERTY LINE

TREE PRESERVATION PLAN
SHEET 27 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN

THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



KEY PLAN
N.T.S.

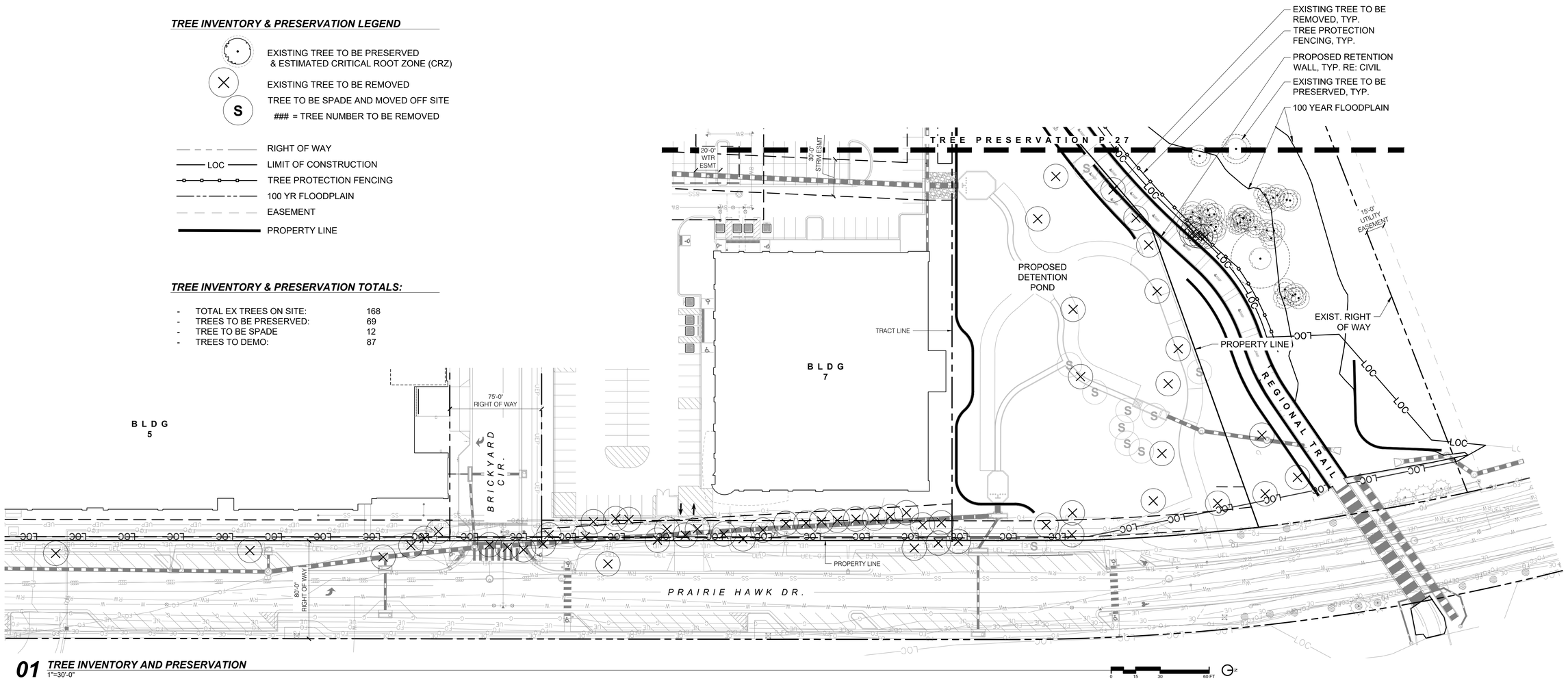
NOTES:
1. ARBORIST TO FIELD VERIFY NEEDED CLEARANCE FROM EXISTING UTILITIES & HEALTH OF TREE PRIOR TO REMOVAL.
2. DRAWINGS BELOW SHOW PROPOSED CONDITIONS OF FUTURE DEVELOPMENT.
3. LIMIT OF CONSTRUCTION LINE HAS BEEN OFFSET BY 5' FOR LEGIBILITY OF PROPERTY LINE ON ALL SHEETS.
4. PROPOSED TREE PROTECTION LOCATIONS AND TOTALS ARE ESTIMATES AND MAY NOT REFLECT FINAL RESULTS DUE TO CHANGES IN GRADING, UTILITIES, AND/OR TREE HEALTH

TREE INVENTORY & PRESERVATION LEGEND

- EXISTING TREE TO BE PRESERVED & ESTIMATED CRITICAL ROOT ZONE (CRZ)
- EXISTING TREE TO BE REMOVED
- S — TREE TO BE SPADE AND MOVED OFF SITE
- ### = TREE NUMBER TO BE REMOVED
- RIGHT OF WAY
- LOC — LIMIT OF CONSTRUCTION
- TREE PROTECTION FENCING
- 100 YR FLOODPLAIN
- EASEMENT
- PROPERTY LINE

TREE INVENTORY & PRESERVATION TOTALS:

-	TOTAL EX TREES ON SITE:	168
-	TREES TO BE PRESERVED:	69
-	TREE TO BE SPADE	12
-	TREES TO DEMO:	87



01 ***TREE INVENTORY AND PRESERVATION***
1"=30'-0"

TREE PRESERVATION PLAN
SHEET 28 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN

THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

LEGEND

- RIGHT OF WAY
- LOC — LIMIT OF CONSTRUCTION
- 100 YR FLOODPLAIN
- TRACT LINE
- EASEMENT
- PROPERTY LINE
- BENCH
- BIKE RACKS
- TRASH AND RECYCLING RECEPTACLES
- SIGHT TRIANGLES
- RETAINING WALLS

TREE LEGEND

- SHADE TREE
- ORNAMENTAL / COLUMNAR TREE
- EVERGREEN TREE

BRICKYARD CIRCLE - OUTER
PRAXIS ST.
TRACT B
SHEET 35
SIGHT TRIANGLE
TRACT C
PROPERTY LINE
BRICKYARD CIRCLE - INNER
PARKING STRUCTURE
LOT 3 / BLOCK 2 / PHASE 2 / BUILDING 3
SHEET 33
BRICKYARD CIR.
LOT 3 / BLOCK 2 / PHASE 2 / BUILDING 2
TRACT G
44'-0" RIGHT OF WAY
BRICKYARD PLAZA TRACT H
POOL DECK ENLARGEMENT RE:02 / SHEET 33
BRICKYARD CIRCLE - INNER
LOT 3 / BLOCK 2 / PHASE 2 / BUILDING 1
50'-0" RIGHT OF WAY
LOT 2 / BLOCK 2 / PHASE 2 / BUILDING 6
BRICKYARD CIRCLE - INNER
LOT 1 / BLOCK 2 / PHASE 2 / BUILDING 4
FIFER ST - WEST SIDE
FIFER ST
63'-0" RIGHT OF WAY
FIFER ST - EAST SIDE
SHEET 31
LOT 1 / BLOCK 3 / PHASE 1C / BUILDING 5
43'-0" RIGHT OF WAY
TRACT E
43'-0" RIGHT OF WAY
LOT 1 / BLOCK 1/ PHASE 3 / BUILDING 8
BLDG. 8 FOOTPRINT IS CONCEPTUAL ONLY. FUTURE DEVELOPMENT OF PA-2 NORTH OF BRICKYARD CIRCLE REQUIRES SUBMITTAL OF A SITE DEVELOPMENT PLAN AMENDMENT.
BRICKYARD CIRCLE - OUTER
SHEET 32
20'-0" WTR ESMT
TRACT LINE
TRANSFORMER PAD
60'-0" WTR + SS ESMT
25'-0" STRM ESMT
25'-0" STRM ESMT
PARKING STRUCTURE
LOT 2 / BLOCK 1 / PHASE 3 / BUILDING 7
SHEET 30
12'-0" UTILITY ESMT
12'-0"
UTILITY EASEMENT
ACCESS EASEMENT
PROPERTY LINE
STORM EASEMENT
PRAIRIE HAWK DR
SEPARATE PROJECT, SEE CD25-0042
RECREATION CENTER - SEPARATE PROJECT, SEE CD24-0037
LOT 2, BLOCK 9
DOG PARK
TRACT L
100 YEAR FLOODPLAIN, TYP.
PROPERTY LINE
LIMIT OF CONSTRUCTION
OUTLOT "A"
REGIONAL TRAIL
INDUSTRIAL TRIBUTARY
LOT 1C, BLOCK 9
RETENTION WALL, TYP. VARYING HEIGHTS RE: CIVIL
DETENTION POND
TRACT A
EASEMENT
PRAIRIE HAWK DR
SEPARATE PROJECT, SEE CD25-0042

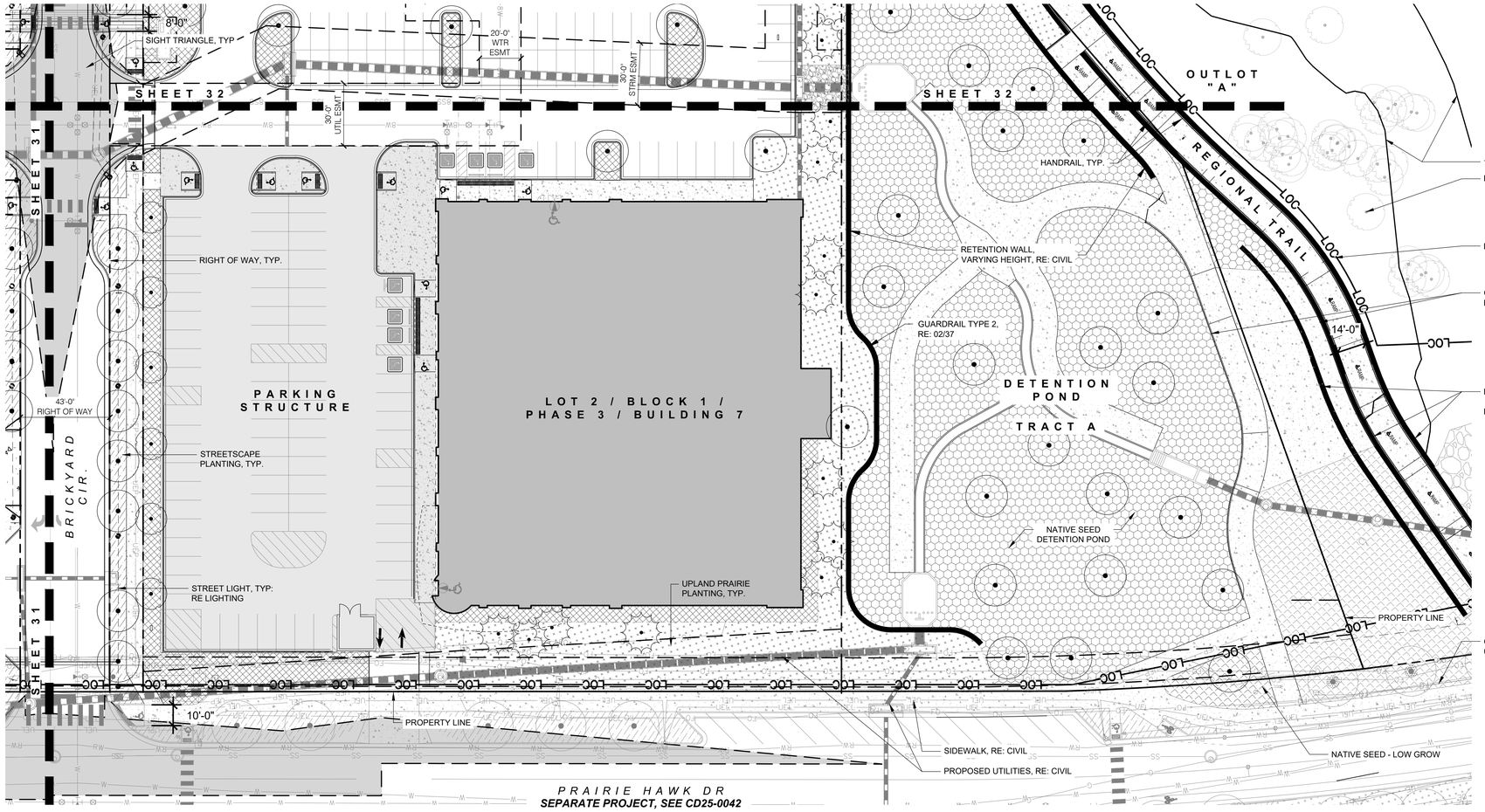
0 25 50 100 FT

01 OVERALL LANDSCAPE PLAN
1"=50'-0"

OVERALL LANDSCAPE PLAN
SHEET 29 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



01 ***LANDSCAPE PLAN***
1"=30'-0"

LEGEND

- RIGHT OF WAY
- LOC — LIMIT OF CONSTRUCTION
- GUARDRAIL TYPE 1
- GUARDRAIL TYPE 2
- 100 YR FLOODPLAIN
- EASEMENT
- PROPERTY LINE
- UNIT PAVERS
- ENHANCED PAVING
- CONCRETE, RE: CIVIL
- BENCH
- BIKE RACKS
- TRASH AND RECYCLING RECEPTACLES
- STREET LIGHTS, RE: LIGHTING
- BUILDING LIGHTS, RE: LIGHTING
- SIGHT TRIANGLES
- ### — EXISTING TREE
- RETENTION WALLS, RE: CIVIL
- CU STRUCTURAL SOIL

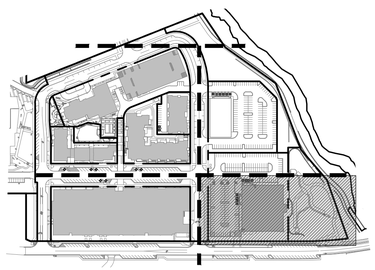
TREE LEGEND

- SHADE TREE
- ORNAMENTAL / COLUMNAR TREE
- EVERGREEN TREE

TREE PLANTING NOTE:
1. RESTRICTIONS APPLY TO PLANTING WITHIN AREAS INTENDED TO HAVE GEOGRID. DETAILS AND SPECIFICATIONS WILL BE PROVIDED FOR CONSTRUCTION DOCUMENTATION.

UTILITY LEGEND

- UEP — UNDERGROUND ELECTRIC
- W — WATER
- G — GAS
- SS — SANITARY
- FO — FIBER OPTIC
- STORM
- UT — UNDERGROUND TELEPHONE
- TRANSFORMER
- FIRE HYDRANT



KEY PLAN
N.T.S.

CONCEPT PLANT SCHEDULE

NOTE: PLANT SCHEDULE IS CONCEPTUAL ONLY. FINAL PLANTING PLAN(S) TO BE APPROVED WITH TOWN CD SUBMITTALS. PLANT SCHEDULE TO MEET CASTLE ROCK APPROVED PLANT LIST.

STREETSCAPE (PER ToCR APPROVED PLANT LIST)
AGASTACHE RUPESTRIS / SUNSET HYSSOP
BOUTELOUA GRACILIS / BLUE GRAMA GRASS
CARYOPTERIS X CLANDONENSIS 'FIRST CHOICE' / COMPACT BLUE MIST SPIREA
MUHLENBERGIA MONTANA / MOUNTAIN MUHLY
PRUNUS BESSEYI 'PAWNEE BUTTES' / PAWNEE BUTTES SAND CHERRY
RHUS AROMATICA 'GROW-LOW' / GRO-LOW SUMAC
AMORPHA NANA / DWARF LEADPLANT
RUDBECKIA HIRTA / BLACK-EYED SUSAN

FOUNDATION (PER TOCR APPROVED PLANT LIST)
ARCTOSTAPHYLOS X COLORADOENSIS / PANCHITO COLORADOENSIS
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PINUS MUGO VAR. MUGO / MUGO PINE
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ARONIA MELANOCARPA / BLACK CHOKEBERRY
JUNIPERUS SCOPULORUM / ROCKY MOUNTAIN JUNIPER

UPLAND PRAIRIE
SEE SHEET 35 - LANDSCAPE REQUIREMENTS FOR FULL SEED MIX

NATIVE SEED - LOW GROWTH
SEE SHEET 35 - LANDSCAPE REQUIREMENTS FOR FULL SEED MIX

NATIVE SEED - DETENTION POND
SEE SHEET 35 - LANDSCAPE REQUIREMENTS FOR FULL SEED MIX

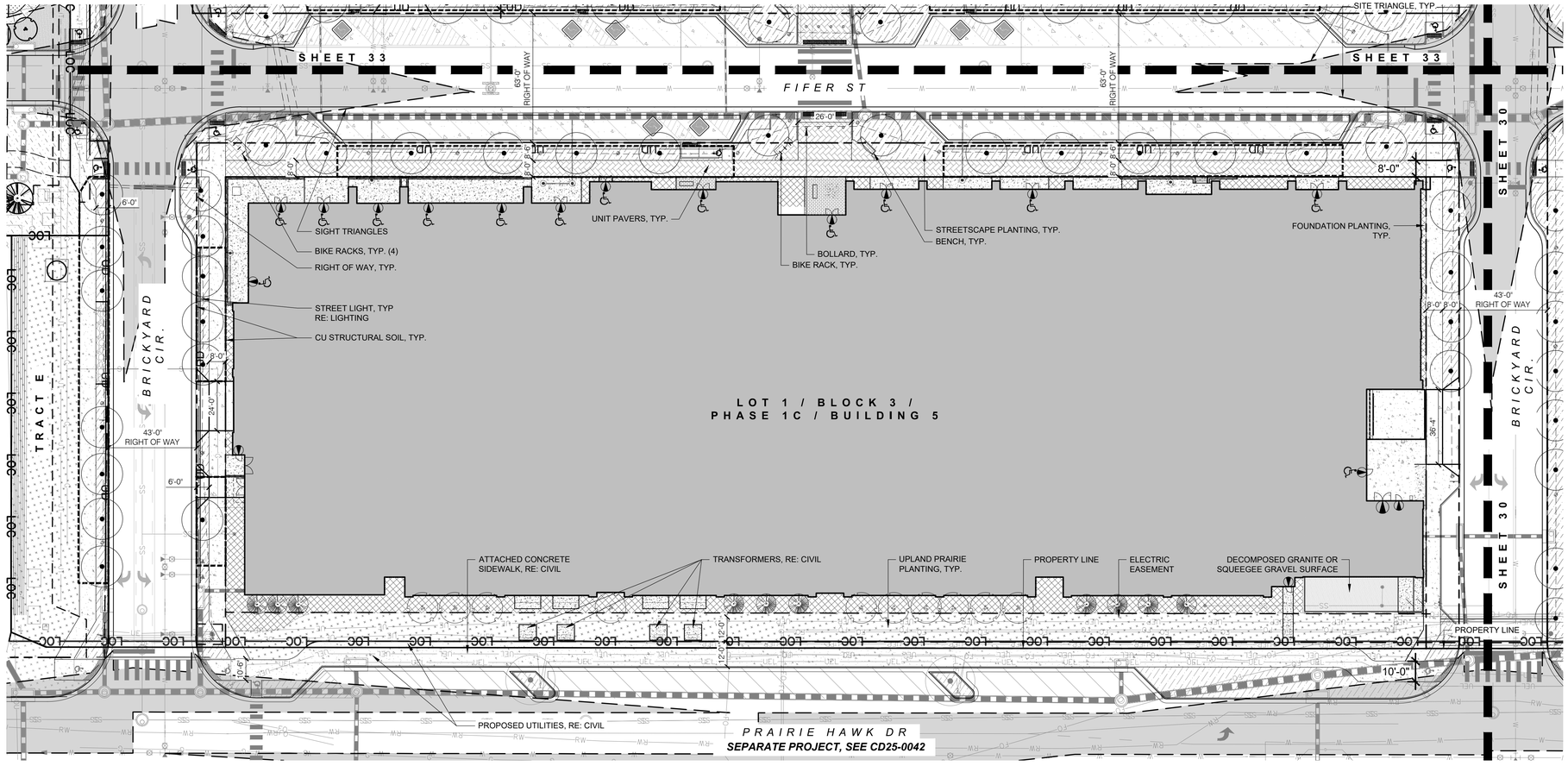
SEED NOTE:
1. AREAS PLANTED WITH ULAND PRAIRIE OR NATIVE SEED WILL HAVE ADDITIONAL SHRUB PLANTINGS FROM THE TOWN OF CASTLE ROCK APPROVED PLANT LIST FOR STRUCTURE INTERSPERSED. ADDITIONAL SHRUB PLANTINGS TO BE PROVIDED DURING THE CONSTRUCTION DOCUMENT APPROVAL PROCESS.

LANDSCAPE PLAN
SHEET 30 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN

THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



01 ***LANDSCAPE PLAN***
1"=30'-0"

0 15 30 60 FT

LEGEND

- RIGHT OF WAY
- LOC — LIMIT OF CONSTRUCTION
- GUARDRAIL TYPE 1
- GUARDRAIL TYPE 2
- 100 YR FLOODPLAIN
- EASEMENT
- PROPERTY LINE
- UNIT PAVERS
- ENHANCED PAVING
- CONCRETE, RE: CIVIL
- BENCH
- BIKE RACKS
- TRASH AND RECYCLING RECEPTACLES
- STREET LIGHTS, RE: LIGHTING
- BUILDING LIGHTS, RE: LIGHTING
- SIGHT TRIANGLES
- EXISTING TREE
- RETENTION WALLS, RE: CIVIL
- CU STRUCTURAL SOIL

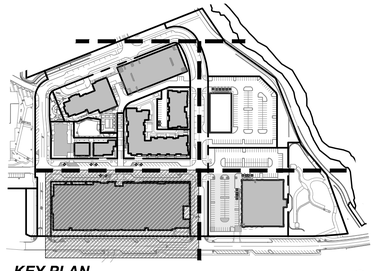
TREE LEGEND

- SHADE TREE
- ORNAMENTAL / COLUMNAR TREE
- EVERGREEN TREE

TREE PLANTING NOTE:
1. RESTRICTIONS APPLY TO PLANTING WITHIN AREAS INTENDED TO HAVE GEOGRID. DETAILS AND SPECIFICATIONS WILL BE PROVIDED FOR CONSTRUCTION DOCUMENTATION.

UTILITY LEGEND

- UEP — UNDERGROUND ELECTRIC
- W — WATER
- G — GAS
- SS — SANITARY
- FO — FIBER OPTIC
- STORM
- UT — UNDERGROUND TELEPHONE
- TRANSFORMER
- FIRE HYDRANT



KEY PLAN
N.T.S.

CONCEPT PLANT SCHEDULE

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STREETSCAPE (PER TOCR APPROVED PLANT LIST)
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JUNIPERUS SCOPULORUM / ROCKY MOUNTAIN JUNIPER

UPLAND PRAIRIE
SEE SHEET 35 - LANDSCAPE REQUIREMENTS FOR FULL SEED MIX

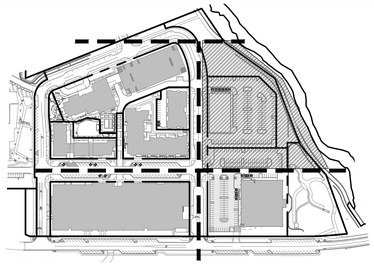
NATIVE SEED - LOW GROWTH
SEE SHEET 35 - LANDSCAPE REQUIREMENTS FOR FULL SEED MIX

NATIVE SEED - DETENTION POND
SEE SHEET 35 - LANDSCAPE REQUIREMENTS FOR FULL SEED MIX

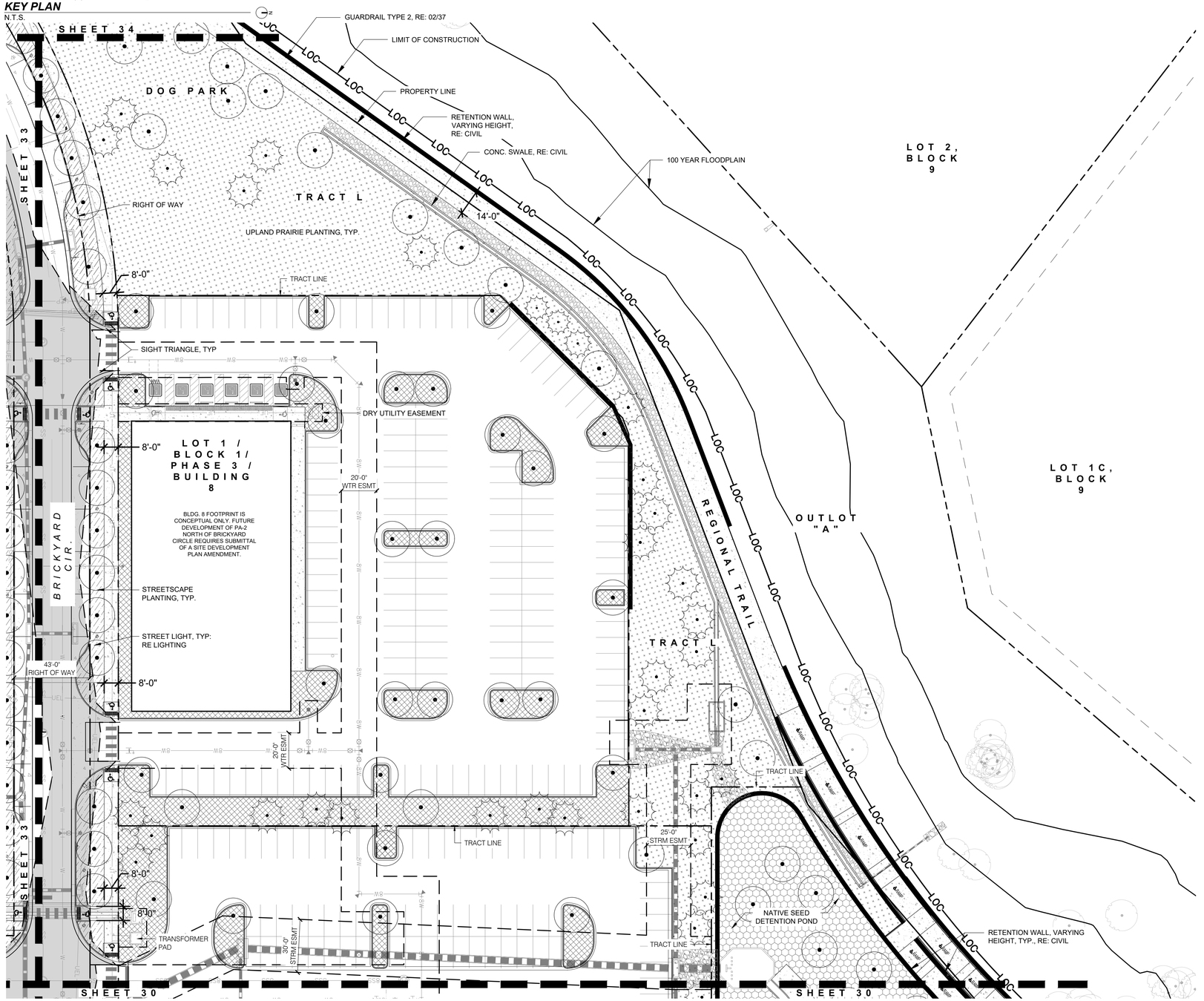
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SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



KEY PLAN
N.T.S.



01 ***LANDSCAPE PLAN***
1"=30'-0"

0 15 30 60 FT.

LEGEND

- RIGHT OF WAY
- LIMIT OF CONSTRUCTION
- GUARDRAIL TYPE 1
- GUARDRAIL TYPE 2
- 100 YR FLOODPLAIN
- EASEMENT
- PROPERTY LINE
- UNIT PAVERS
- ENHANCED PAVING
- CONCRETE, RE: CIVIL
- BENCH
- BIKE RACKS
- TRASH AND RECYCLING RECEPTACLES
- STREET LIGHTS, RE: LIGHTING
- BUILDING LIGHTS, RE: LIGHTING
- SIGHT TRIANGLES
- EXISTING TREE
- RETENTION WALLS, RE: CIVIL
- CU STRUCTURAL SOIL

TREE LEGEND

- SHADE TREE
- ORNAMENTAL / COLUMNAR TREE
- EVERGREEN TREE

TREE PLANTING NOTE:
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UTILITY LEGEND

- UEP — UNDERGROUND ELECTRIC
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- FO — FIBER OPTIC
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CONCEPT PLANT SCHEDULE

NOTE: PLANT SCHEDULE IS CONCEPTUAL ONLY. FINAL PLANTING PLAN(S) TO BE APPROVED WITH TOWN CD SUBMITTALS. PLANT SCHEDULE TO MEET CASTLE ROCK APPROVED PLANT LIST.

STREETSCAPE (PER TOCR APPROVED PLANT LIST)
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JUNIPERUS SCOPULORUM / ROCKY MOUNTAIN JUNIPER

UPLAND PRAIRIE
SEE SHEET 35 - LANDSCAPE REQUIREMENTS FOR FULL SEED MIX

NATIVE SEED - LOW GROWTH
SEE SHEET 35 - LANDSCAPE REQUIREMENTS FOR FULL SEED MIX

NATIVE SEED - DETENTION POND
SEE SHEET 35 - LANDSCAPE REQUIREMENTS FOR FULL SEED MIX

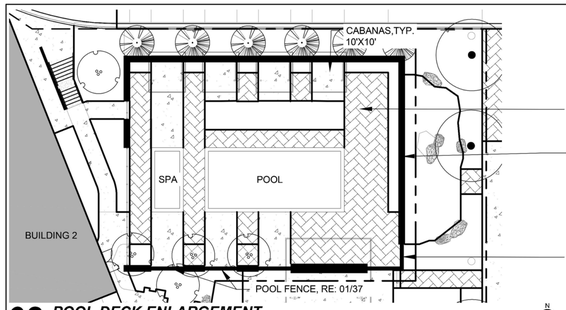
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LANDSCAPE PLAN
SHEET 32 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

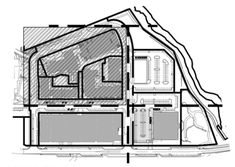
SITE DEVELOPMENT PLAN

THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



02 POOL DECK ENLARGEMENT
1" = 20'-0"



KEY PLAN
N.T.S.

LEGEND

- RIGHT OF WAY
- LOC — LIMIT OF CONSTRUCTION
- GUARDRAIL TYPE 1
- GUARDRAIL TYPE 2
- 100 YR FLOODPLAIN
- EASEMENT
- PROPERTY LINE
- UNIT PAVERS
- ENHANCED PAVING
- CONCRETE, RE: CIVIL
- BENCH
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- TRASH AND RECYCLING RECEPTACLES
- STREET LIGHTS, RE: LIGHTING
- BUILDING LIGHTS, RE: LIGHTING
- SIGHT TRIANGLES
- EXISTING TREE
- RETENTION WALLS, RE: CIVIL
- CU STRUCTURAL SOIL

TREE LEGEND

- SHADE TREE
- ORNAMENTAL / COLUMNAR TREE
- EVERGREEN TREE

TREE PLANTING NOTE:
1. RESTRICTIONS APPLY TO PLANTING WITHIN AREAS INTENDED TO HAVE GEOGRID. DETAILS AND SPECIFICATIONS WILL BE PROVIDED FOR CONSTRUCTION DOCUMENTATION.

UTILITY LEGEND

- UEP — UNDERGROUND ELECTRIC
- W — WATER
- G — GAS
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CONCEPT PLANT SCHEDULE

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STREETSCAPE (PER TOCR APPROVED PLANT LIST)
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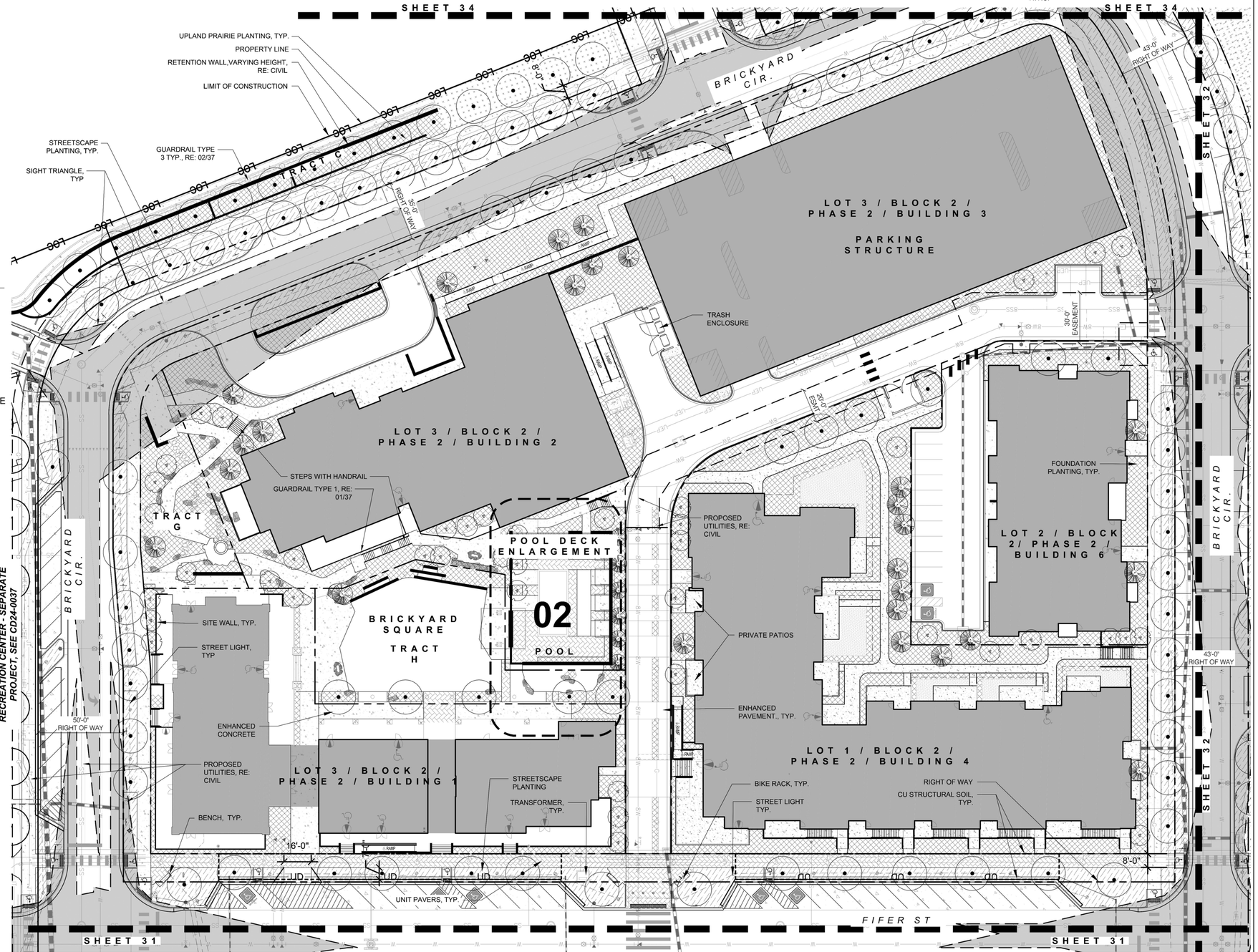
FOUNDATION (PER TOCR APPROVED PLANT LIST)
ARCTOSTAPHYLOS X COLORADOENSIS / PANCHITO COLORADOENSIS
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ARONIA MELANOCARPA / BLACK CHOKEBERRY
JUNIPERUS SCOPULORUM / ROCKY MOUNTAIN JUNIPER

UPLAND PRAIRIE
SEE SHEET 35 - LANDSCAPE REQUIREMENTS FOR FULL SEED MIX

NATIVE SEED - LOW GROWTH
SEE SHEET 35 - LANDSCAPE REQUIREMENTS FOR FULL SEED MIX

NATIVE SEED - DETENTION POND
SEE SHEET 35 - LANDSCAPE REQUIREMENTS FOR FULL SEED MIX

SEED NOTE:
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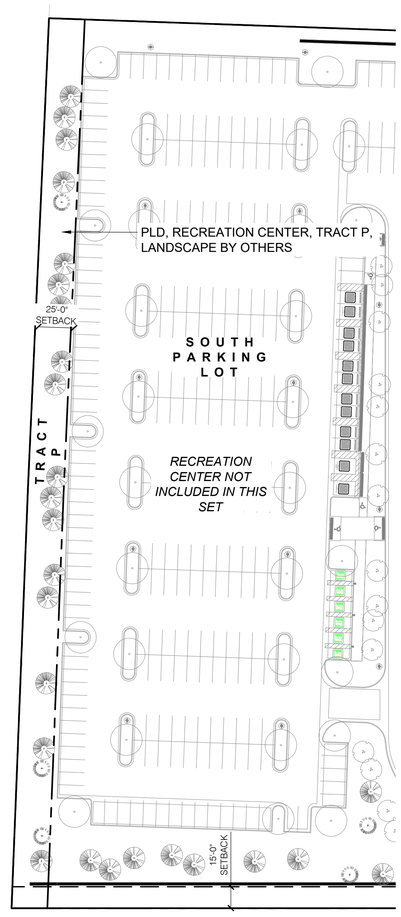
01 LANDSCAPE PLAN
1"=30'-0"

0 15 30 60 FT

LANDSCAPE PLAN
SHEET 33 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



02 ***TRACT P LANDSCAPE PLAN***
1"=50'-0"

CONCEPT PLANT SCHEDULE

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STREETSCAPE (PER TOCR APPROVED PLANT LIST)
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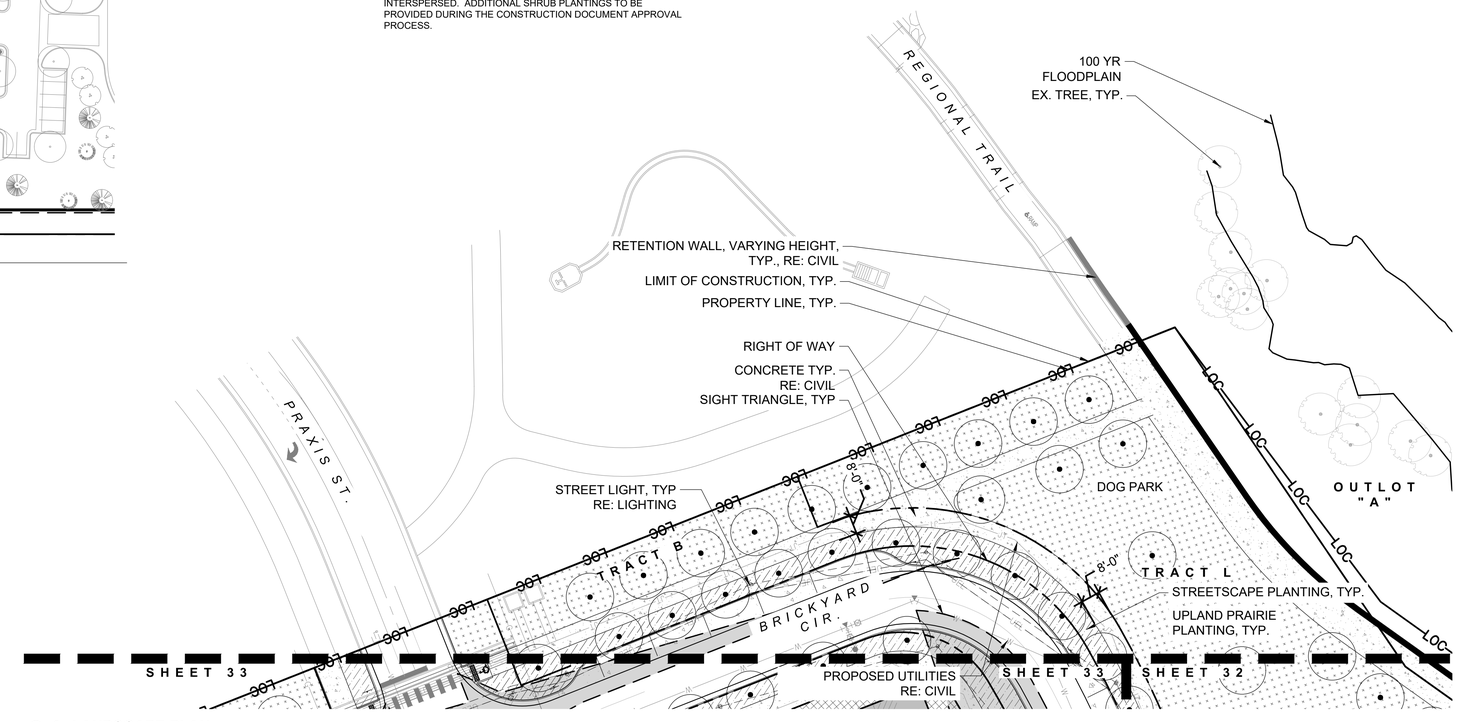
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UPLAND PRAIRIE
SEE SHEET 35 - LANDSCAPE REQUIREMENTS FOR FULL SEED MIX

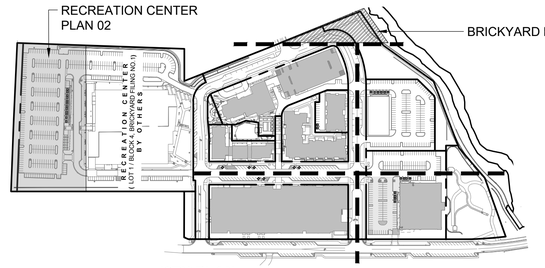
NATIVE SEED - LOW GROWTH
SEE SHEET 35 - LANDSCAPE REQUIREMENTS FOR FULL SEED MIX

NATIVE SEED - DETENTION POND
SEE SHEET 35 - LANDSCAPE REQUIREMENTS FOR FULL SEED MIX

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01 ***LANDSCAPE PLAN***
1"=30'-0"



KEY PLAN
N.T.S.

LEGEND

- RIGHT OF WAY
- LOC — LIMIT OF CONSTRUCTION
- GUARDRAIL TYPE 1
- GUARDRAIL TYPE 2
- 100 YR FLOODPLAIN
- EASEMENT
- PROPERTY LINE
- UNIT PAVERS
- ENHANCED PAVING
- CONCRETE, RE: CIVIL
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- EXISTING TREE
- RETENTION WALLS, RE: CIVIL
- CU STRUCTURAL SOIL

TREE LEGEND

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- ORNAMENTAL / COLUMNAR TREE
- EVERGREEN TREE

TREE PLANTING NOTE:
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- STORM
- UT — UNDERGROUND TELEPHONE
- TRANSFORMER
- FIRE HYDRANT

LANDSCAPE PLAN
SHEET 34 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

DEVELOPMENT SITE INVENTORY DATA (NOT INCLUDING STREETSCAPE)

Town of Castle Rock Registered Professional: WILLIAM T BOWEN

Town of Castle Rock Registration # **State of Colorado License Landscape Architect #** LA. 0001108

Company Name: BACK40 LANDSCAPE ARCHITECTURE **Address:** 1510 YORK STREET, SUITE 302, DENVER, CO 80206

Phone: 402.841.2858 **Email:** NATHAN@BACK40LA.COM **Date:** 7/16/2025

Project Name: **BRICKYARD**

Please add values/quantity in the shaded areas. Provided values/quantity must be equal to or greater than the required value/quantity.

Gross Site Area	Required Landscape *(10% of the gross site area)*	Existing Landscape (If Applicable)	Provided Landscape Area	Required Trees *(2 trees / 1,000 sqft)*	Provided Trees	Required Shrubs *(4 shrubs / 1,000 sqft)*	Provided Shrubs	Soil Prep Amounts (cu.yds. Per 1000 SF)
818,029	81,803		191,862	164	241	327	5828	7.4
Turf Grass Square Footage (SF)*	**Required Landscape Coverage Percentage (75% minimum)**	**Existing Landscape (If Applicable)**	**Provided Landscape Coverage at Maturity (SF)**	**Required Nonliving Ornamental Percentage *(25% maximum)***	**Provided Nonliving Ornamental Area in Landscape (SF)**	**Required Large Canopy Decidious Tree (50% minimum)**	**Provided Large Canopy Deciduous Shade Tree**	**Separate Irrigation Service Connections**
0	61,352		143,896	20,451	0	82	109	Yes ____ No __X__

* *STREETSCAPE REQUIREMENTS TABLE*

Street Name/Tract	Linear Feet (LF)**	Required Street Trees *(1 tree per 40 LF)*	Existing Street Trees (If applicable)	Provided Street Trees	Required Street Shrubs *(4 shrubs per required tree)*	Provided Street Shrubs
Brickyard Circle - Outer	1,940	49	n/a	57	196	413
Brickyard Circle - Inner	***1,280	32	n/a	38	128	415
Fifer Street - West Side	557	14	n/a	14	56	122
Fifer Street - East Side	557	14	n/a	14	56	120
Total Counts	***4,334	109		123	436	1,070

*Streetscape requirements can be found in Section 8.2.1 of the Landscape and Irrigation Criteria Manual
*Streetscape does not count towards overall site landscape requirements
*Residential Only - On local streets, the required front yard tree shall meet the street tree requirements for that section of roadway.
**Please provide the linear footage and clearly show on the Site Development Plan for all streets/tracts.
*** SIGHT DISTANCE EASEMENT EXCLUDED FROM LINEAR FEET CALCULATION

PARKING LOT LANDSCAPE REQUIREMENTS (LOT 1 / BLOCK 1 / PHASE 3 / BUILDING 8)

Parking Lot*							
Parking Lot Area	**Landscaping Area Required *(10% of square footage)***	**Existing Landscape (If Applicable)**	**Landscaped Area Provided**	**Required Trees** *(2 large canopy deciduous shade trees / 1,000 sqft)*	**Provided Trees**	**Required Shrubs** *(4 shrubs / 1,000 sqft)*	**Provided Shrubs**
55,063 SF	5,506 SF	0 SF	10,703 SF	11	30	22	> 22
Parking Lot Peninsula/Islands (40 Spaces or More)**							
Number of Parking Spaces	**Number of Landscaped Islands Required *(1 island per 15 spaces)***		**Number of Landscaped Islands Provided**	**Required Trees*** *(Minimum of 1 large canopy deciduous shade tree per island/peninsula)*	**Provided Trees**	**Required Shrubs *(Minimum of 4 shrubs per island/peninsula)***	**Provided Shrubs**
152	11		15	15	22	88	> 88

*Parking Lot landscaping can count towards overall site landscape requirements.
**Parking Lot landscaping outside of landscaped islands/peninsulas should be located within 3 feet of the parking lot perimeter.
***Evergreens are not permitted in landscaped islands/peninsulas.
****Parking Lot Peninsula/Islands criteria for lots over 40 spaces can be found in Section 7.2.1.2(2)(c) of the Landscape and Irrigation Criteria Manual.

PARKING LOT LANDSCAPE REQUIREMENTS (LOT 2 / BLOCK 1 / PHASE 3 / BUILDING 7)

Parking Lot*							
Parking Lot Area	**Landscaping Area Required *(10% of square footage)***	**Existing Landscape (If Applicable)**	**Landscaped Area Provided**	**Required Trees** *(2 large canopy deciduous shade trees / 1,000 sqft)*	**Provided Trees**	**Required Shrubs** *(4 shrubs / 1,000 sqft)*	**Provided Shrubs**
32,256 SF	3,227 SF	0 SF	7,515 SF	7	15	13	> 13
Parking Lot Peninsula/Islands (40 Spaces or More)**							
Number of Parking Spaces	**Number of Landscaped Islands Required *(1 island per 15 spaces)***		**Number of Landscaped Islands Provided**	**Required Trees*** *(Minimum of 1 large canopy deciduous shade tree per island/peninsula)*	**Provided Trees**	**Required Shrubs *(Minimum of 4 shrubs per island/peninsula)***	**Provided Shrubs**
75	5		6	6	8	44	> 44

*Parking Lot landscaping can count towards overall site landscape requirements.
**Parking Lot landscaping outside of landscaped islands/peninsulas should be located within 3 feet of the parking lot perimeter.
***Evergreens are not permitted in landscaped islands/peninsulas.
****Parking Lot Peninsula/Islands criteria for lots over 40 spaces can be found in Section 7.2.1.2(2)(c) of the Landscape and Irrigation Criteria Manual.

DEVELOPMENT PLANT INVENTORY BREAK DOWN (NOT INCLUDING STREETSCAPE)

PLANT SCHEDULE

Please add values/quantities in the shaded areas

DECIDUOUS SHADE TREES — HYDROZONE 2 — QUANTITY 109

LARGE CANOPY DECIDUOUS SHADE TREES SHALL BE A MINIMUM OF 2'' INCHES IN CALIPER MEASURED SIX (6) INCHES ABOVE GROUND

LARGE CANOPY DECIDUOUS SHADE TREES SHALL BE A MINIMUM OF 3" INCHES IN CALIPER WHEN IN A GRATE OR PLANTED IN AREAS LESS THAN EIGHT (8) FEET IN WIDTH

ORNAMENTAL TREES — HYDROZONE 2 — QUANTITY 57

ORNAMENTAL TREES SHALL BE A MINIMUM OF 1.5'' INCHES IN CALIPER, MEASURED SIX (6) INCHES ABOVE GROUND

EVERGREEN TREES — HYDROZONE 2 — QUANTITY 86

EVERGREEN TREES SHALL BE A MINIMUM OF 6 FEET IN HEIGHT, MEASURED TO THE MID-POINT OF THE MOST RECENT YEAR'S GROWTH

DECIDUOUS SHRUBS — HYDROZONE 1 — QUANTITY 3890

SHRUBS SHALL BE A MINIMUM OF FIVE (5) GALLON CONTAINER IN SIZE

EVERGREEN SHRUBS — HYDROZONE 1 — QUANTITY 1938

SHRUBS SHALL BE A MINIMUM OF FIVE (5) GALLON CONTAINER IN SIZE

ORNAMENTAL GRASSES — HYDROZONE 1 — QUANTITY 5408

ORNAMENTAL GRASSES SHALL BE A MINIMUM OF FIVE (5) GALLON CONTAINER IN SIZE

PERENNIALS — HYDROZONE 1 — AREA 3062

PERENNIALS, GROUND COVERS, AND VINES SHALL BE A MINIMUM OF ONE (1) GALLON CONTAINER IN SIZE

ANNUAL PLANTING BEDS — HYDROZONE — AREA

ANNUALS SHALL BE SIZED SHALL BE APPROPRIATE TO APPLICATION, WHETHER FLATS, FOUR (4) INCH POTS OR LARGER AND SPACED TO PROVIDE SEVENTY-FIVE (75) PERCENT GROUND COVER

NATIVE SEED — HYDROZONE 1 — AREA 134,867 SQFT

GRASS SEED PLANTING QUALITY AND QUANTITY IN IRRIGATED AREAS SHALL BE IN COMPLIANCE WITH NURSERY STANDARDS AND SHALL PROVIDE A MINIMUM GROUND COVER OF EIGHTY (80) PERCENT WITHIN THE FIRST GROWING SEASON

APPROVED NATIVE GRASS SEED MIXES: [Low Grow Mix/Foothills Mix/Colorado Native Mix]

LOT / TRACT LANDSCAPE REQUIREMENTS

LOT / BLOCK / PHASE / BUILDING	LAND USE TYPE (RESIDENTIAL OR NON-RESIDENTIAL)	GROSS AREA	REQ NON-RES LANDSCAPE AREA (10% OF GROSS)	REQ RES LANDSCAPE AREA (20% OF GROSS)	REQ TREES (2 PER 1000 SF OF REQUIRED LANDSCAPE AREA	PROVIDED TREES	REQ SHRUBS (4 PER 1000 SF OF REQUIRED LANDSCAPE AREA	PROVIDED SHRUBS
LOT 1 / BLOCK 3 / PHASE 1C / BUILDING 5	RESIDENTIAL	133,658 SF	N / A	*16,925 SF	34	**20	136	136 MIN
LOT 1 / BLOCK 2 / PHASE 2 / BUILDING 4	RESIDENTIAL	52,805 SF	N / A	10,561 SF	22	22	43	43 MIN
LOT 2 / BLOCK 2 / PHASE 2 / BUILDING 6	RESIDENTIAL	23,518 SF	N / A	4,704 SF	10	10	19	19 MIN
LOT 3 / BLOCK 2 / PHASE 2 / BUILDINGS 2 & 3	NON-RESIDENTIAL	102,165 SF	10,217 SF	N / A	21	38	41	41 MIN
LOT 4 / BLOCK 2 / PHASE 2 / BUILDING 1	NON-RESIDENTIAL	31,004 SF	3,100 SF	N / A	7	7	13	13 MIN
LOT 1 / BLOCK 1 / PHASE 3 / BUILDING 8	NON-RESIDENTIAL	83,833 SF	8,383 SF	N / A	17	31	34	34 MIN
LOT 2 / BLOCK 1 / PHASE 3 / BUILDING 7	NON-RESIDENTIAL	124,420 SF	12,442 SF	N / A	25	30	50	50 MIN
TRACT A	OPEN SPACE | DETENTION POND	61,417 SF	6,142 SF	N / A	13	22	56	56 MIN
TRACT B (AREA BEHIND PUBLIC SIDEWALK)	OPEN SPACE	3,187	319 SF	N / A	1	4	4	4 MIN
TRACT C (AREA BEHIND PUBLIC SIDEWALK)	OPEN SPACE	7,370 SF	737 SF	N / A	2	13	8	8 MIN
TRACK E	OPEN SPACE	9,366 SF	937 SF	N / A	2	6	8	8 MIN
TRACT G	OPEN SPACE	4,768 SF	477 SF	N / A	2	5	8	8 MIN
TRACT H	OPEN SPACE	9,923 SF	992 SF	N / A	2	5	8	8 MIN
TRACT J	OPEN SPACE	5,159 SF	FIRE LANE (LANDSCAPE IMPROVEMENTS NOT APPLICABLE)					
TRACT L	OPEN SPACE	59,263 SF	5,926	N / A	12	37	48	48 MIN
TRACT P	PUBLIC OPEN SPACE	15,554 SF	RESIDENTIAL BUFFER LANDSCAPE BY OTHERS. SEE CD24-0037					
LOT / BLOCK DEVELOPMENT TOTALS:		727,410 SF	43,746 SF	32,193 SF	158	213	428	428 MIN

LOT / TRACT PARKING LOT LANDSCAPE TAKE-OFFS

LOT / TRACT	GROSS PARKING LOT AREA	REQUIRED LANDSCAPE AREA (10% OF PARKING LOT AREA)	LANDSCAPE AREA PROVIDED
LOT 1 / BLOCK 3 / PHASE 1C / BUILDING 5	0 SF	N / A	N / A
LOT 1 / BLOCK 2 / PHASE 2 / BUILDING 4	0 SF	N / A	N / A
LOT 2 / BLOCK 2 / PHASE 2 / BUILDING 6	0 SF	N / A	N / A
LOT 3 / BLOCK 2 / PHASE 2 / BUILDINGS 2 & 3	0 SF	N / A	N / A
LOT 4 / BLOCK 2 / PHASE 2 / BUILDING 1	0 SF	N / A	N / A
LOT 1 / BLOCK 1 / PHASE 3 / BUILDING 8	55,063 SF	5,506 SF	10,703 SF
LOT 2 / BLOCK 1 / PHASE 3 / BUILDING 7	32,256 SF	3,227 SF	7,515 SF

* REQUIRED LANDSCAPE AREA REDUCED BY ENCUMBERED UTILITY EASEMENT (9,807 SF)
** PROVIDED TREES TO MEET DEVELOPMENT REQUIREMENT AS A WHOLE (TOTAL TREES PROVIDED NEED TO MEET OR EXCEED TOTAL REQUIRED TREES PER LANDSCAPE AREA. DEVELOPMENT TOB BE REVIEWED AS A WHOLE, THEREFORE THE TOTAL REQUIRED AND PROPOSED TREE/SHRUB QUANTITIES ARE THE GOVERNING LANDSCAPE REQUIREMENT NUMBERS.

DOUGLAS COUNTY AND CASTLE ROCK SEED MIX INFORMATION

UPLAND PRAIRIE

Douglas County and Castle Rock Permanent Drill Seed Mix					
Common Name	**Botanical Name**	**Variety**	**Notes**	**%in Mix**	**Pounds of PLS Per Acres**
Big Bluestem	Andropogon gerardi	Kaw	PNWS	10	1.1
Yellow Indiangrass	Sorghastrum nutans	Cheyenne	PNWS	10	1
Switchgrass	Panicum virgatum	Blackwell	PNWS	10	0.4
Sideoats Grama	Bouteloua curtipendula	Vaughn	PNWB	10	0.9
Western Wheatgrass	Pascopyrum Smithii	Arriba	PNCS	10	1.6
Blue Grama	Bouteloua gracilis	Hachita	PNWB	10	0.3
Thickspike Wheatgrass	Elymus lanceolatus ssp. dasystachyum	Critana	PNCS	10	1
Prairie Sandreed	Calamovilfa longifolia	Goshen	PNWS	10	0.7
Green Needlegrass	Stipa viridula	Lodorm	PNCB	10	1
Slender Wheatgrass	Elymus trachycaulus ssp. Trachycaulus	Pryor	PNCB	5	0.6
Streambank Wheatgrass	Elymus lanceolatus ssp. riparium	Sodar	PNCS	5	0.6

NATIVE SEED - LOW GROWTH

Douglas County and Castle Rock Low Growth Drill Seed Mix					
Common Name	**Botanical Name**	**Variety**	**Notes**	**%in Mix**	**Pounds of PLS Per Acres**
Buffalograss	Buchloe dactyloides	Texoka	PNWS	20	3.2
Blue Grama	Bouteloua gracilis	Hachita	PNWB	20	0.6
Western Wheatgrass	Pascopyrum smithii	Arriba	PNCS	20	3.2
Sideoats Grama	Bouteloua curtipendula	Vaughn	PNWB	20	1.8
Thickspike Wheatgrass	Elymus lanceolatus ssp. Dasystachyum	Critana	PNCS	10	1
Streambank Wheatgrass	Elymus lanceolatus ssp. Riparium	Sodar	PNCS	10	1.2

NATIVE SEED - DETENTION POND

HIGH PLAINS / FOOTHILLS RIPARIAN SEED MIX		
COMMON NAME	BOTANICAL NAME	% IN MIX
Canada Wildrye	Elymus canadensis	25
Tuffted Hairgrass	Deschampsia cespitosa	20
Big Bluestem	Andropogon gerardii	15
Switchgrass	Panicum virgatum	15
Indian Grass	Sorghastrum nutans	15
Baltic Rush	Juncus balticus	5
Spikerush	Eleocharis palustris	2.5
Alkali Sacaton	Sporobolus airoides	2.5

SUPPLIER RECOMMENDED APPLICATION: WYOMING, COLORADO, AND NEW MEXICO ELEVATION RANGE UP TO 7,000' SEASONALLY OR TEMPORARILY WET SOIL

SUPPLIER RECOMMENDED SEED RATE: 8OZ PER 1,000 SQ.FT.

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

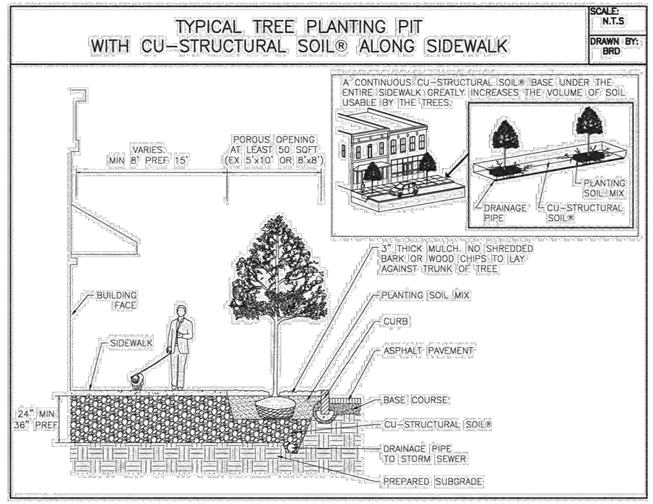
TOWN OF CASTLE ROCK STANDARD NOTES:

1. FINAL LANDSCAPE AREA, COVERAGE AND PLANT QUANTITIES, SHALL MEET OR EXCEED QUANTITIES REPRESENTED IN THIS DRAWING AND SHALL CONFORM TO SUBSEQUENT SUBMITTAL REQUIREMENTS.
2. LOCATION OF PLANT MATERIALS ARE APPROXIMATED AND MAY CHANGE SLIGHTLY DUE TO UNFORESEEN FIELD CONSTRAINTS.
3. ALL PLANTS ARE TO BE PROPERLY HYDROZONED PER TOWN OF CASTLE ROCK PLANT LIST.
4. DISTANCE OF TREES TO WET UTILITIES SHOULD BE A MINIMUM OF 10 FEET.
5. PERMANENT IRRIGATION IS REQUIRED FOR ALL LANDSCAPED AREAS GREATER THAN 500 SQUARE FEET PER SECTION 4.2.3 OF THE LANDSCAPE AND IRRIGATION MANUAL.
6. DESIGN MUST ACCOMMODATE THE WATERING RESTRICTIONS AS OUTLINES IN THE TOWN OF CASTLE ROCK WATER USE MANAGEMENT PLAN (WUMP).
7. IRRIGATION SYSTEMS ARE TO BE DESIGNED TO OPERATE WITHIN THE TOWN OF CASTLE ROCK WATER USE MANAGEMENT PLAN.
8. IRRIGATION SYSTEMS ARE TO BE DESIGNED PER THE TOWN OF CASTLE ROCK LANDSCAPE AND IRRIGATION REGULATIONS SECTION 4.2.3 AND TO CORRELATE WITH THE USE TYPE ON THE PROPERTY.
9. IF ANY TRANSFORMERS, GROUND-MOUNTED HVAC UNITY, UTILITY PEDESTALS, OR SIMILAR FEATURES EXISTING ON SITE, BUT NOT SHOWN ON THE SITE DEVELOPMENT PLAN, ADDITIONAL LANDSCAPING AND SCREENING MAY BE REQUIRED BASED UPON FIELD CONDITIONS DETERMINED DURING THE SITE INSPECTION. INSTALLATION WILL BE REQUIRED PRIOR TO THE FINAL INSPECTION AND THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY, AS APPLICABLE.
10. NO SOLID OBJECT EXCEEDING 30" IN HEIGHT ABOVE THE FLOWLINE ELEVATION OF THE ADJACENT STREET, INCLUDING BUT NOT LIMITED TO BUILDING, UTILITY CABINETS, WALLS, FENCES, TREES, LANDSCAPE PLANTINGS, CUT SLOPES AND BERMS SHALL BE PLACED IN SIGHT DISTANCE TRIANGLES OR EASEMENTS AS SHOWN ON THE PLAN.
11. NO TREES, LARGE SHRUBS, OR PERMANENT STRUCTURES ARE ALLOWED IN WET UTILITY AND DRAINAGE EASEMENTS.
12. AN IRRIGATION PLAN IS REQUIRED WITH THE FIRST SUBMITTAL OF THE CONSTRUCTION DOCUMENTS. PLEASE SEE SECTION 3.1.2B AND 4.2.3 OF THE TOWN OF CASTLE ROCK LANDSCAPE AND IRRIGATION PERFORMANCE STANDARDS AND CRITERIA MANUAL FOR IRRIGATION SUBMITTAL AND DESIGN REQUIREMENTS. CHANGES TO THE LANDSCAPE PLAN MAY BE NECESSARY DUE TO CONSTRUCTION DOCUMENTS IRRIGATION PLAN REVIEW COMMENTS.
13. LANDSCAPE AND IRRIGATION SHALL BE INSTALLED BY A TOWN OF CASTLE ROCK REGISTERED LANDSCAPE CONTRACT PROFESSIONAL.
14. DEAD PLANT MATERIALS SHALL BE REMOVED AND REPLACED WITH HEALTHY PLANTING MATERIALS OF COMPARABLE SIZE AND SPECIES THAT MEET THE ORIGINAL INTENT OF THE APPROVED LANDSCAPE DESIGN WITHIN FORTY-FIVE (45) DAYS OR SOONER IN THE EVENT OF A CONTAGIOUS DISEASE OR INVASIVE INSECT SPECIES. TOWN OF CASTLE ROCK IS NOT RESPONSIBLE FOR PLANT REPLACEMENTS.
15. SLOPES STEEPER THAN 3:1 ARE NOT PERMITTED ON LANDSCAPE PLANS IN THE TOWN OF CASTLE ROCK.

LANDSCAPING NOTES:

1. SQUARE FOOTAGES ARE ESTIMATED. FINAL LANDSCAPE AREA COVERAGE SHALL MET OR EXCEED COVERAGE REPRESENTED IN THIS DRAWING AND SHALL CONFORM TO SUBSEQUENT SUBMITTAL REQUIREMENTS.
2. QUANTITIES AND LOCATIONS OF PLANT MATERIALS ARE APPROXIMATED. FINAL QUANTITIES AND LOCATIONS WILL BE REFLECTED ON CONSTRUCTION DOCUMENTS.
3. ALL PLANTS ARE TO BE PROPERLY HYDROZONED PER TOWN OF CASTLE ROCK PLANT LIST.
4. DISTANCE OF TREES TO UTILITY LINES SHOULD BE A MINIMUM OF 10 FEET.
5. DESIGN MUST ACCOMMODATE THE WATERING RESTRICTIONS AS OUTLINED IN THE TOWN OF CASTLE ROCK WATER USE MANAGEMENT PLAN (WUMP).
6. IRRIGATION SYSTEMS ARE TO BE DESIGNED TO OPERATE WITHIN THE TOWN OF CASTLE ROCK WUMP.
7. IRRIGATION SYSTEMS ARE TO BE DESIGNED PER THE TOWN OF CASTLE ROCK LANDSCAPE AND IRRIGATION PERFORMANCE STANDARDS AND CRITERIA MANUAL SECTION 4.2.3 AND TO CORRELATE WITH THE SUE OF TYPE ON THE PROPERTY.
8. PERMANENT IRRIGATION IS REQUIRED FOR ALL LANDSCAPE AREAS GREATER THAN 500 SQUARE FEET, PER SECTION 4.2.3 OF THE LANDSCAPE AND IRRIGATION PERFORMANCE STANDARDS AND CRITERIA MANUAL.
9. IF ANY TRANSFORMERS, GROUND-MOUNTED HVAC UNITS, UTILITY PEDESTALS, OR SIMILAR FEATURES EXISTING ON SITE, BUT NOT SHOWN ON THE SITE DEVELOPMENT PLAN, ADDITIONAL LANDSCAPING AND SCREENING MAY BE REQUIRED BASED UPON FIELD CONDITIONS DETERMINED DURING THE SITE INSPECTION. INSTALLATION WILL BE REQUIRED PRIOR TO THE FINAL INSPECTION AND THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY, AS APPLICABLE.
10. NO SOLID OBJECT EXCEEDING 30" IN HEIGHT ABOVE THE FLOWLINE ELEVATION OF THE ADJACENT STREET, INCLUDING, BUT NOT LIMITED TO BUILDING, UTILITY CABINETS, WALLS, FENCES, TREES, LANDSCAPE PLANTINGS, CUT SLOPES AND BERMS SHALL BE PLACED IN SIGHT DISTANCE TRIANGLES OR EASEMENTS AS SHOWN ON THE PLAN.
11. NO TREES, LARGE SHRUBS, OR PERMANENT STRUCTURES ARE ALLOWED IN UTILITY AND DRAINAGE EASEMENTS.
12. AN IRRIGATION PLAN IS REQUIRED WITH THE FIRST SUBMITTAL OF THE CONSTRUCTION DOCUMENTS. PLEASE SEE SECTIONS 3.1.2B AND 4.2.3 OF THE TOWN OF CASTLE ROCK LANDSCAPE IRRIGATION PERFORMANCE STANDARDS AND CRITERIA MANUAL FOR IRRIGATION SUBMITTAL AND DESIGN REQUIREMENTS. CHANGES TO THE LANDSCAPE PLAN MAY BE NECESSARY DUE TO CONSTRUCTION DOCUMENTS IRRIGATION PLAN REVIEW COMMENTS.
13. LANDSCAPE AND IRRIGATION SHALL BE INSTALLED BY A TOWN OF CASTLE ROCK REGISTERED LANDSCAPE CONTRACT PROFESSIONAL.
14. DEAD PLANT MATERIALS SHALL BE REMOVED AND REPLACED WITH HEALTHY PLANTING MATERIAL OF COMPARABLE SIZE AND SPECIES THAT MEET THE ORIGINAL INTENT OF THE APPROVED LANDSCAPE DESIGN WITHIN FORTY-FIVE (45) DAYS OR SOONER IN THE EVENT OF A CONTAGIOUS DISEASE OR INVASIVE INSECT SPECIES. TOWN OF CASTLE ROCK IS NOT RESPONSIBLE FOR PLANT REPLACEMENTS.
15. SLOPES STEEPER THAN 3:1 ARE NOT PERMITTED ON LANDSCAPE PLANS IN THE TOWN OF CASTLE ROCK.

Typical Tree Planting Pit with CU-Structural Soil® along Sidewalk



01 ***TREE PLANTING AREA WITH STRUCTURAL SOIL***
NTS



BENCH
MANUFACTURER: LANDSCAPEFORMS
MODEL: PROFILE BOLLARD
REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION

03 ***BOLLARDS***
NTS



BENCH
MANUFACTURER: ANOVA FURNISHINGS
MODEL: VIBE STEEL BIKE RACK, RLA30
REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION

04 ***BIKE RACK***
NTS



BENCH
MANUFACTURER: ANOVA FURNISHINGS
MODEL: CANYON EDGE RECYCLED PLASTIC GABION-STYLE BENCH
REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION

06 ***SITE WALL***
NTS



BENCH
MANUFACTURER: ANOVA FURNISHINGS
MODEL: TANDEM 6' CONTOUR BENCH, TAN3280P
REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION

02 ***BENCH***
NTS



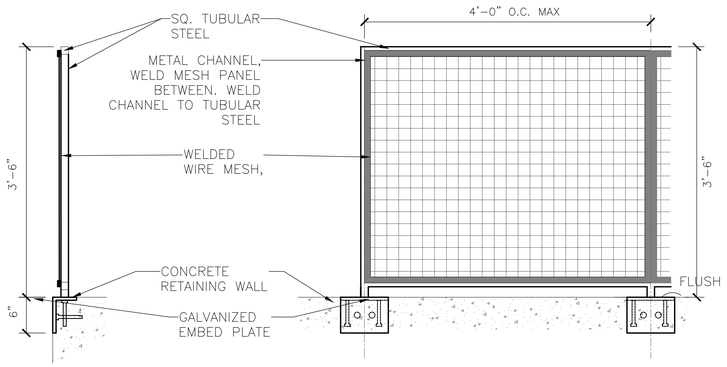
BENCH
MANUFACTURER: ANOVA FURNISHINGS
MODEL: VIBE 45 GALLON, #RLA45R
REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION

05 ***TRASH & RECYCLING***
NTS

SITE DEVELOPMENT PLAN

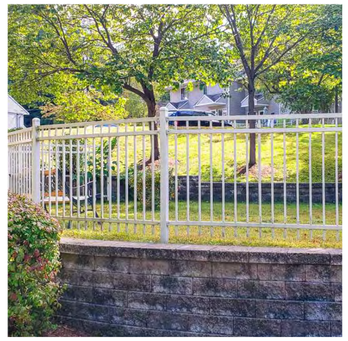
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



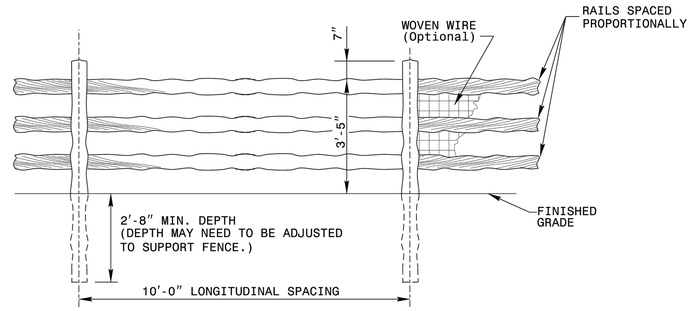
GUARDRAIL TYPE 1
MANUFACTURER: CUSTOM
MATERIALS: WELDED WIRE MESH & SQUARE TUBULAR STEEL
REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION

01 ***GUARDRAIL FENCE - TYPE 1***
SCALE: 1" = 1'-0"

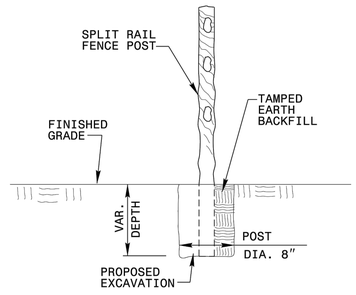


GUARDRAIL TYPE 2
MANUFACTURER: AMERISTAR
MODEL: AEGIS PLUS MAJESTIC 2/3 RAIL W/RING OPTION
REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION

02 ***GUARDRAIL FENCE - TYPE 2***
NTS



ELEVATION



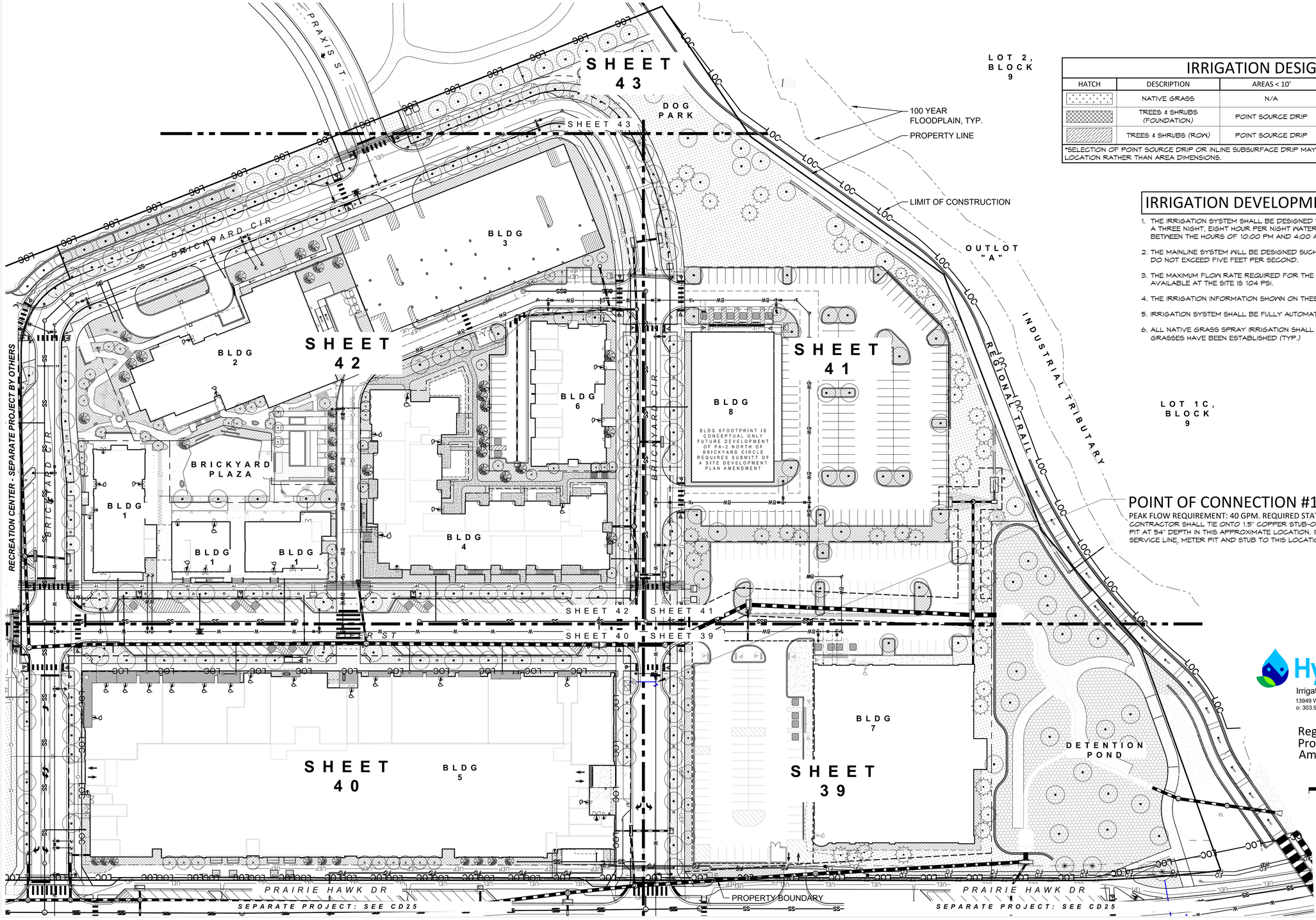
SECTION

03 ***GUARDRAIL - TYPE 3 - WOOD SPLIT RAIL***
NTS

SITE DEVELOPMENT PLAN

THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



IRRIGATION DESIGN STRATEGY

HATCH	DESCRIPTION	AREAS < 10'	AREAS 10'-25'	AREAS > 25'
	NATIVE GRASS	N/A	12" POPUP SPRAY	12" ROTOR
	TREES & SHRUBS (FOUNDATION)	POINT SOURCE DRIP	POINT SOURCE DRIP	POINT SOURCE DRIP
	TREES & SHRUBS (ROW)	POINT SOURCE DRIP	POINT SOURCE DRIP	POINT SOURCE DRIP

*SELECTION OF POINT SOURCE DRIP OR INLINE SUBSURFACE DRIP MAY BE DETERMINED BY PLANT DENSITY, GROWTH HABIT OR LOCATION RATHER THAN AREA DIMENSIONS.

IRRIGATION DEVELOPMENT DESIGN NOTES

1. THE IRRIGATION SYSTEM SHALL BE DESIGNED TO PROVIDE PEAK SEASON IRRIGATION WITHIN A THREE NIGHT, EIGHT HOUR PER NIGHT WATERING PERIOD. IRRIGATION SHALL OCCUR BETWEEN THE HOURS OF 10:00 PM AND 4:00 AM.
2. THE MAINLINE SYSTEM WILL BE DESIGNED SUCH THAT VELOCITIES WITHIN THE MAINLINE PIPING DO NOT EXCEED FIVE FEET PER SECOND.
3. THE MAXIMUM FLOW RATE REQUIRED FOR THE SITE IS 40 GPM. THE STATIC PRESSURE AVAILABLE AT THE SITE IS 104 PSI.
4. THE IRRIGATION INFORMATION SHOWN ON THESE PLANS IS CONCEPTUAL.
5. IRRIGATION SYSTEM SHALL BE FULLY AUTOMATIC AND INCLUDE A WEATHER SENSING DEVICE.
6. ALL NATIVE GRASS SPRAY IRRIGATION SHALL BE TEMPORARY ONLY, AND REMOVED AFTER GRASSES HAVE BEEN ESTABLISHED (TYP.)

POINT OF CONNECTION #1 - 1.5"

PEAK FLOW REQUIREMENT: 40 GPM. REQUIRED STATIC PRESSURE: 104 PSI MIN.
CONTRACTOR SHALL TIE ONTO 1.5" COPPER STUB-OUT DOWNSTREAM OF METER PIT AT 54" DEPTH IN THIS APPROXIMATE LOCATION. INSTALLATION OF TAP, SERVICE LINE, METER PIT AND STUB TO THIS LOCATION IS BY OTHERS RE:CIVIL.

ASSOCIATES
PLANNERS & LANDSCAPE ARCHITECTS

KDI HydroSystems
Irrigation Consulting & Water Management
13949 W. Colfax Ave, Suite 260 Lakewood, Colorado 80401
o: 303.980.5327 www.hydrosystemskdi.com

Registered Landscape Professional/Irrigation Designer:
Amber Clark #15-1133

0 25 50 100 FT

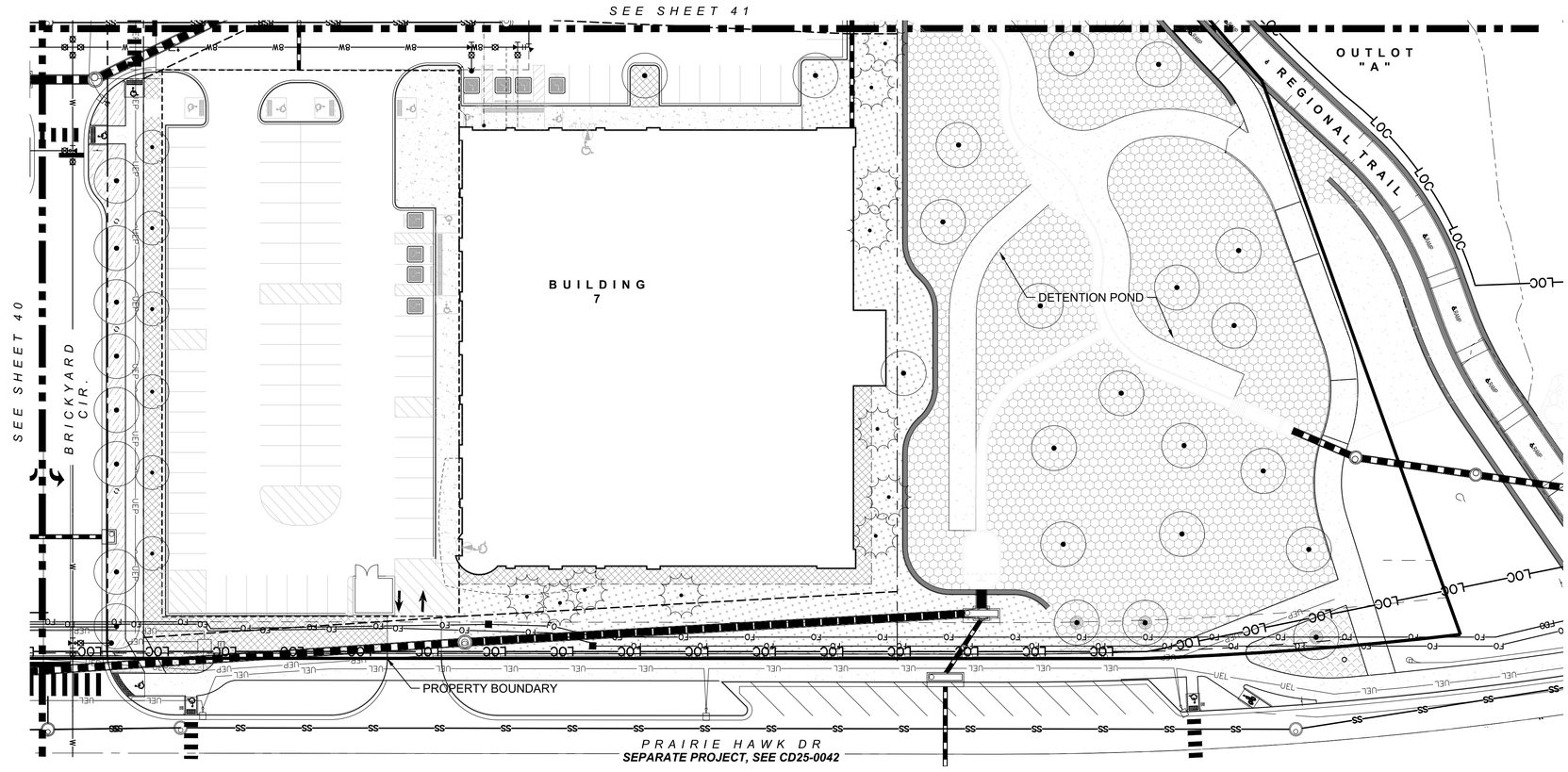
Know what's below.
Call before you dig.
CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

IRRIGATION PLAN INDEX
SHEET 38 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

IRRIGATION DESIGN STRATEGY				
HATCH	DESCRIPTION	AREAS < 10'	AREAS 10'-25'	AREAS > 25'
	NATIVE GRASS	N/A	12" POPUP SPRAY	12" ROTOR
	TREES & SHRUBS (FOUNDATION)	POINT SOURCE DRIP	POINT SOURCE DRIP	POINT SOURCE DRIP
	TREES & SHRUBS (ROW)	POINT SOURCE DRIP	POINT SOURCE DRIP	POINT SOURCE DRIP
*SELECTION OF POINT SOURCE DRIP OR INLINE SUBSURFACE DRIP MAY BE DETERMINED BY PLANT DENSITY, GROWTH HABIT OR LOCATION RATHER THAN AREA DIMENSIONS.				



01 ***IRRIGATION PLAN***
1"=30'-0"

0 15 30 60 FT N

ASSOCIATES
PLANNERS & LANDSCAPE ARCHITECTS

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Irrigation Consulting & Water Management
13949 W. Colfax Ave, Suite 260 Lakewood, Colorado 80401
o: 303.980.5327 www.hydrosystemskdi.com

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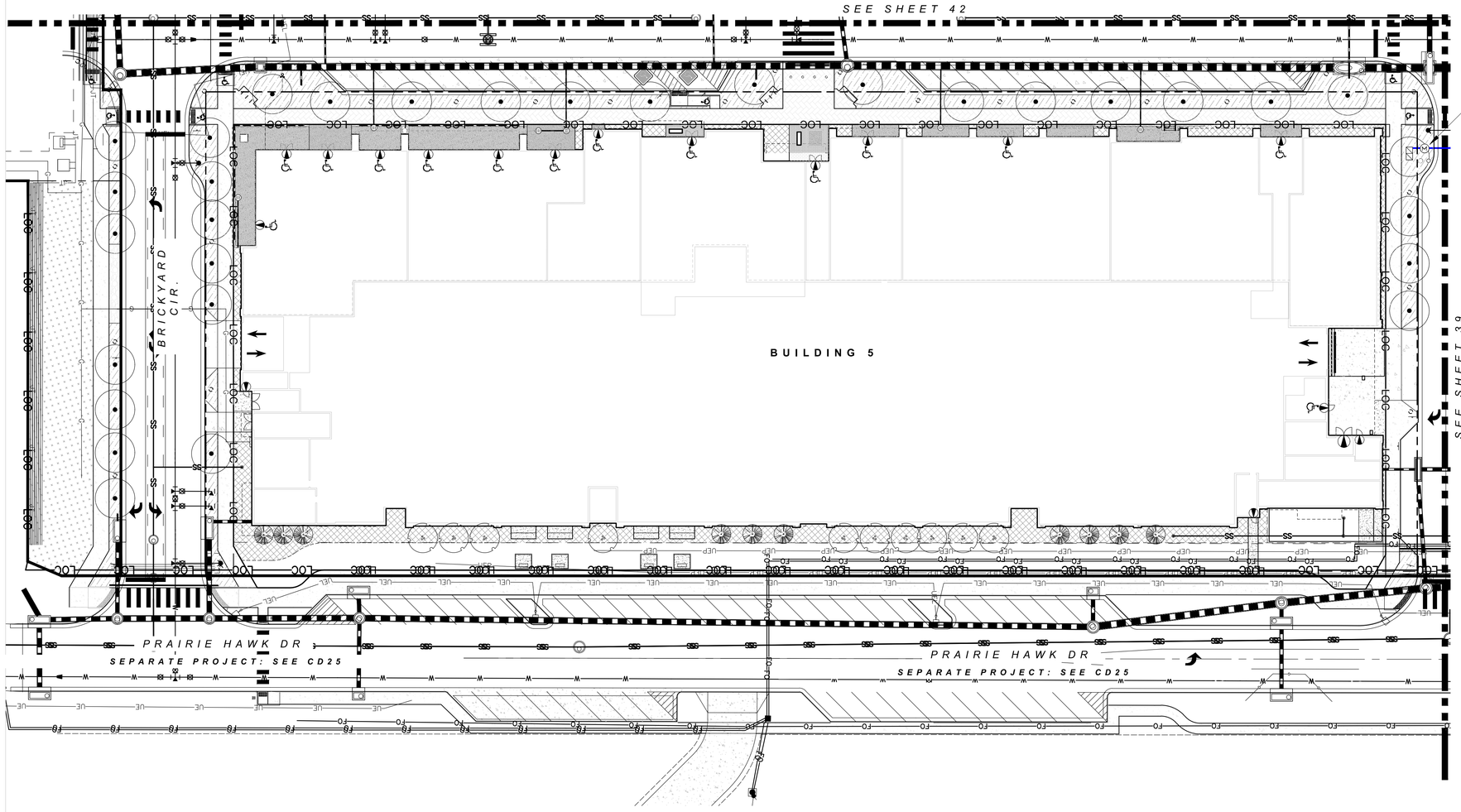
Registered Landscape Professional/Irrigation Designer:
Amber Clark #15-1133

IRRIGATION PLAN
SHEET 39 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
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	TREES & SHRUBS (ROW)	POINT SOURCE DRIP	POINT SOURCE DRIP	POINT SOURCE DRIP
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POINT OF CONNECTION #1 - 1.5"

PEAK FLOW REQUIREMENT: 40 GPM. REQUIRED STATIC PRESSURE: 104 PSI MIN.
CONTRACTOR SHALL TIE ONTO 1.5" COPPER STUB-OUT DOWNSTREAM OF METER PIT AT 54" DEPTH IN THIS APPROXIMATE LOCATION. INSTALLATION OF TAP, SERVICE LINE, METER PIT AND STUB TO THIS LOCATION IS BY OTHERS RE:CIVIL. INSTALL ONE 1.5" METER PER TOWN OF CASTLE ROCK SPECIFICATIONS AND STANDARDS. CONNECT TO STUB AND EXTEND 1.5" TYPE K SOFT COPPER AT 54" MINIMUM DEPTH TO BACKFLOW PREVENTER LOCATION. INSTALL ONE 1.5" STOP AND WASTE VALVE, ONE 1.5" REDUCED PRESSURE BACKFLOW PREVENTER WITH PRESSURE REDUCING VALVE AND PROTECTIVE ENCLOSURE, ONE MANUAL DRAIN VALVE, ONE 1.5" FLOW SENSOR, ONE 1.5" GATE VALVE, ONE QUICK COUPLING VALVE, ONE 1.5" MASTER VALVE, AND EXTEND PVC MAINLINE AS SHOWN. SET PRV AT 90 PSI.

01 ***IRRIGATION PLAN***
1"=30'-0"

0 15 30 60 FT

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o: 303.980.5327 www.hydrosystemskdi.com

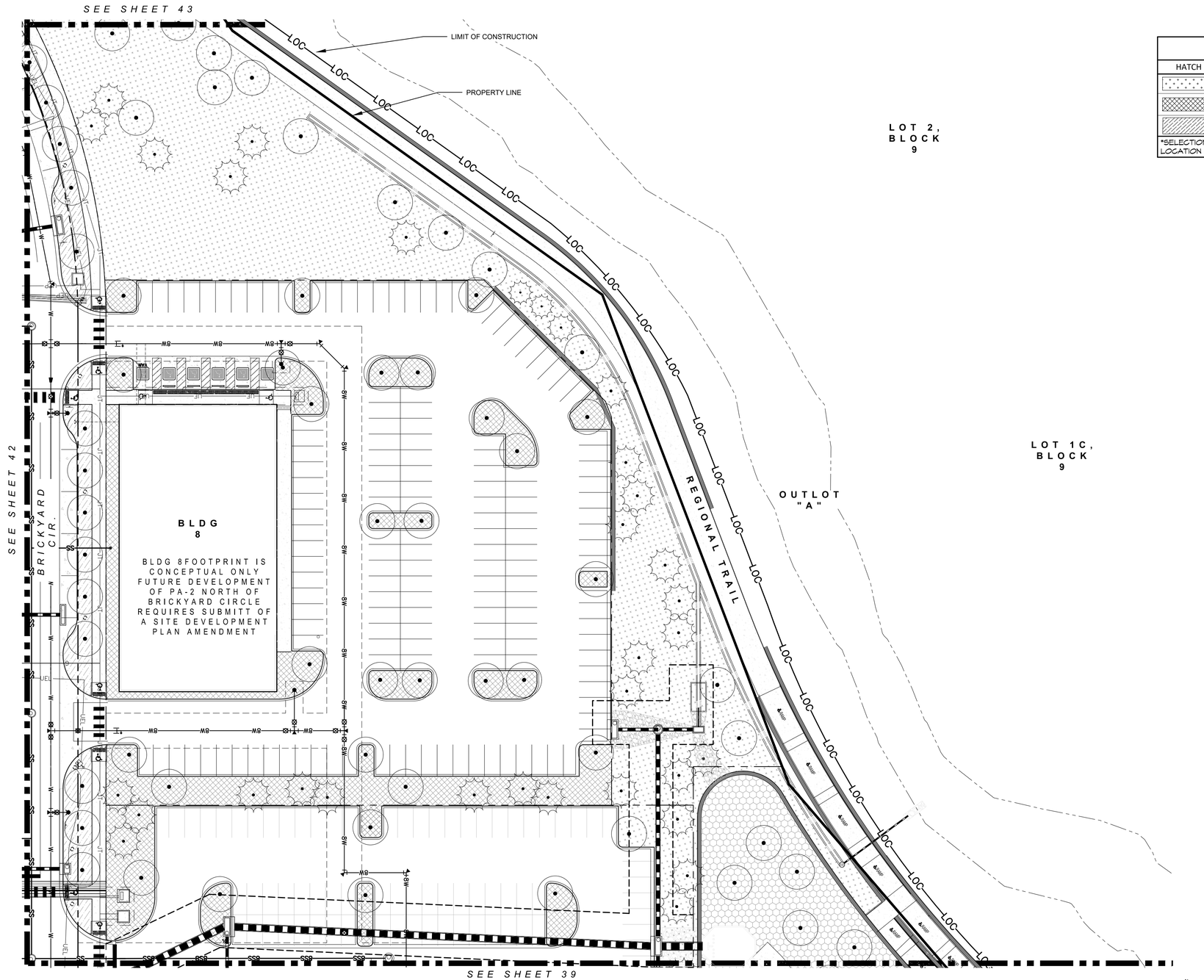
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Registered Landscape
Professional/Irrigation Designer:
Amber Clark #15-1133

wenk ASSOCIATES PLANNERS & LANDSCAPE ARCHITECTS

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



01 ***IRRIGATION PLAN***
1"=30'-0"

IRRIGATION DESIGN STRATEGY

HATCH	DESCRIPTION	AREAS < 10'	AREAS 10'-25'	AREAS > 25'
	NATIVE GRASS	N/A	12" POPUP SPRAY	12" ROTOR
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	TREES & SHRUBS (ROW)	POINT SOURCE DRIP	POINT SOURCE DRIP	POINT SOURCE DRIP

*SELECTION OF POINT SOURCE DRIP OR INLINE SUBSURFACE DRIP MAY BE DETERMINED BY PLANT DENSITY, GROWTH HABIT OR LOCATION RATHER THAN AREA DIMENSIONS.

wenk ASSOCIATES PLANNERS & LANDSCAPE ARCHITECTS

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IRRIGATION PLAN
SHEET 41 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

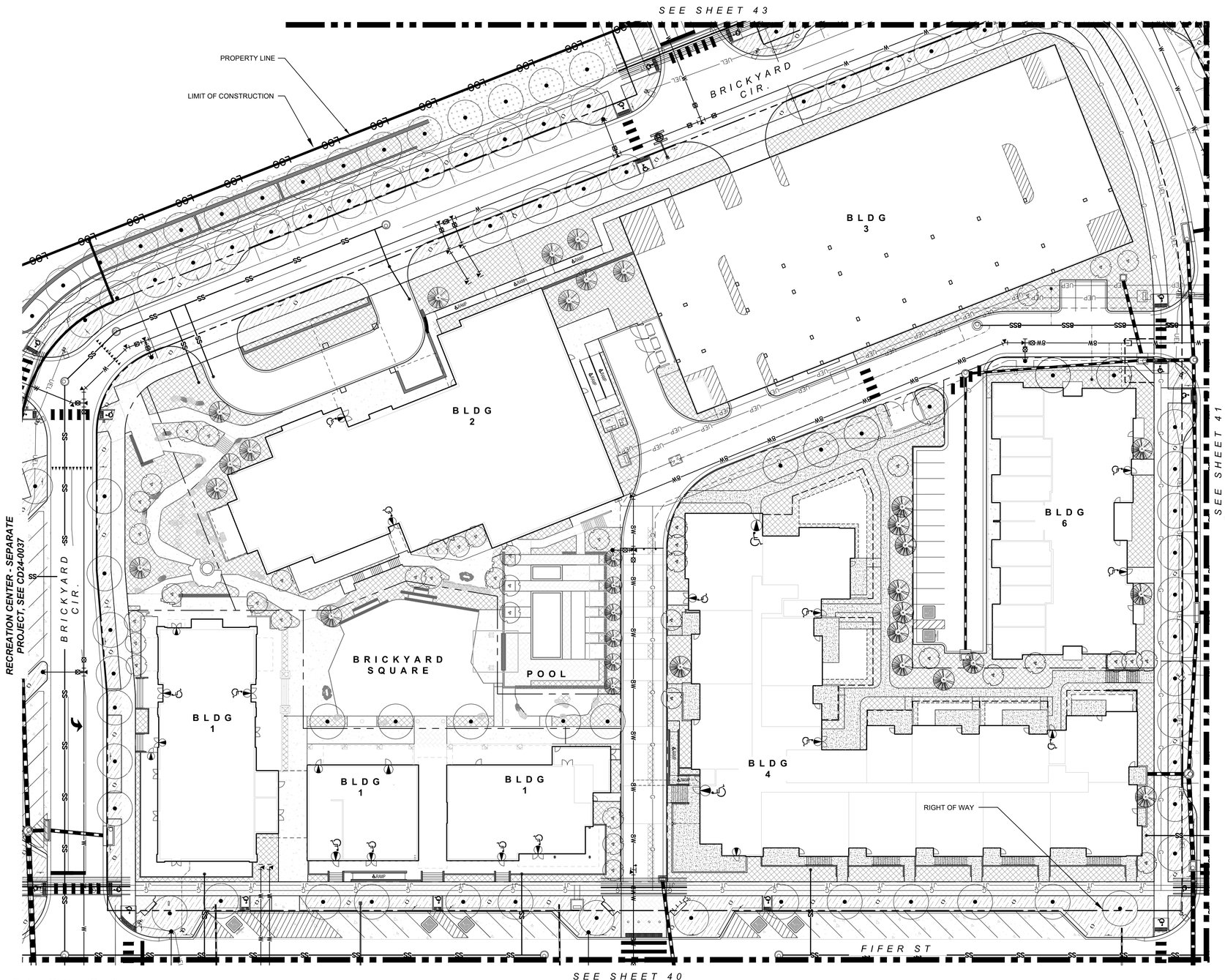
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

w e n k
ASSOCIATES
PLANNERS &
LANDSCAPE
ARCHITECTS

IRRIGATION DESIGN STRATEGY				
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	NATIVE GRASS	N/A	12" POPUP SPRAY	12" ROTOR
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01 ***IRRIGATION PLAN***
1"=30'-0"

0 15 30 60 FT

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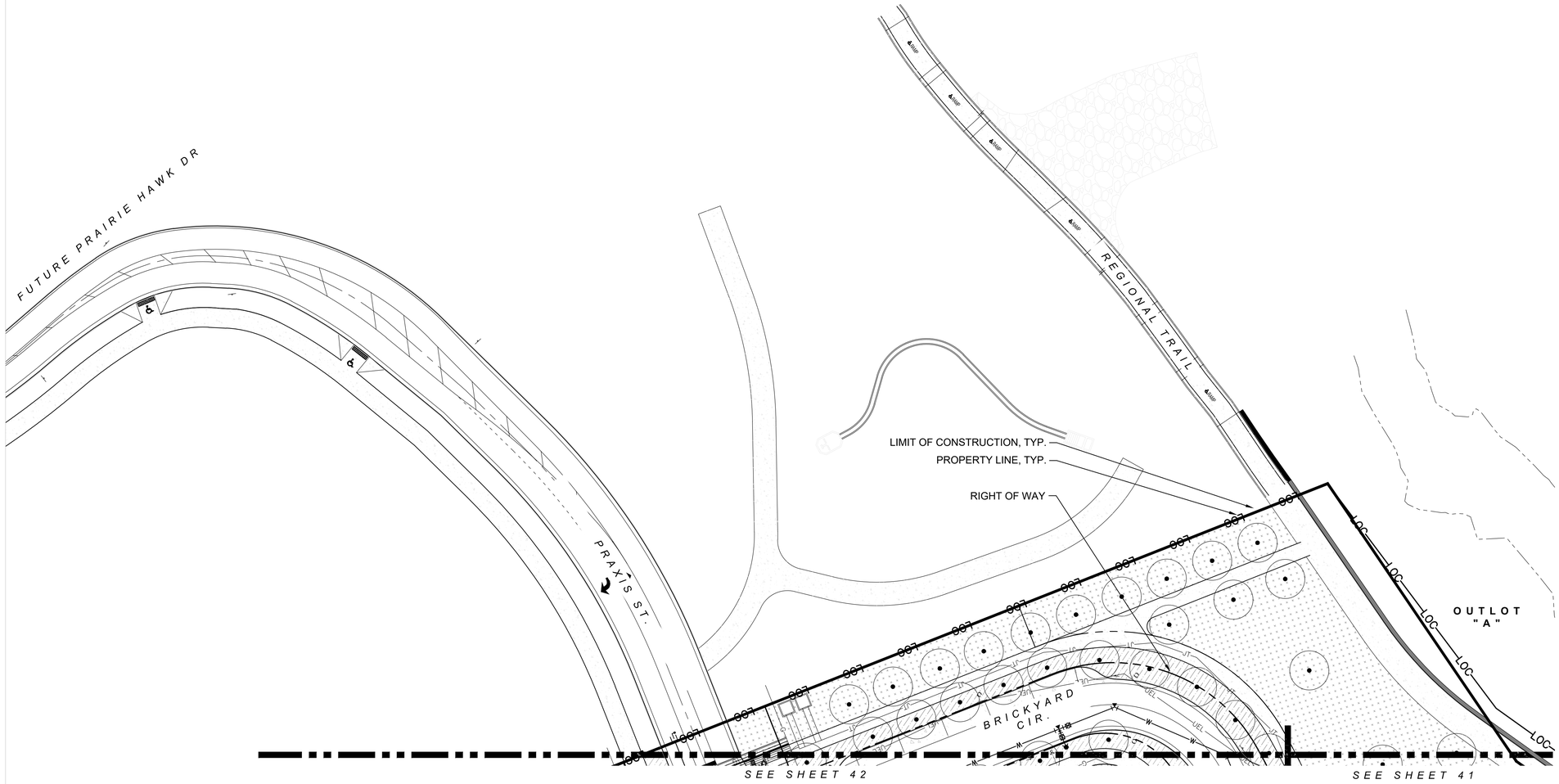
IRRIGATION PLAN
SHEET 42 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
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IRRIGATION DESIGN STRATEGY				
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	TREES & SHRUBS (ROW)	POINT SOURCE DRIP	POINT SOURCE DRIP	POINT SOURCE DRIP

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01 ***IRRIGATION PLAN***
1"=30'-0"

0 15 30 60 FT

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IRRIGATION PLAN
SHEET 43 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

ASSOCIATES
PLANNERS & LANDSCAPE ARCHITECTS

SITE DEVELOPMENT PLAN
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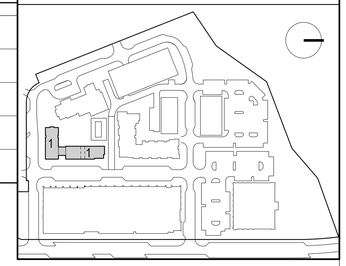
KEYNOTE LEGEND

KEY VALUE	KEYNOTE TEXT
116	EXTERIOR LIGHT
304	CONCRETE PANEL, COLOR: GREY
311	CONCRETE STAIR, COLOR: GREY
316	CONCRETE MSE (MECHANICALLY STABILIZED EARTH) WALL SYSTEM, COLOR: GRAY
401.1	ARCHITECTURAL BLOCK, COLOR: GREY
402.1	BRICK FINISH FACE, COLOR: RED
406	COPING, COLOR: RED
503	CANOPY, COLOR: CHARCOAL GREY
507	STEEL COLUMN, COLOR: CHARCOAL GREY
508	METAL GUARDRAIL, COLOR: CHARCOAL GREY
516	FASCIA, COLOR: CHARCOAL GREY
520	METAL CANOPY, COLOR: CHARCOAL GREY
523	METAL GATE, COLOR: CHARCOAL GREY
524	METAL DOWNSPOUT, COLOR: CHARCOAL GREY
701	METAL COPING, COLOR: CHARCOAL GREY
704	METAL PANEL, COLOR: CHARCOAL GREY
706	METAL ROOF, COLOR: CHARCOAL GREY
707.1	METAL WALL PANEL, COLOR: CHARCOAL GREY
707.2	METAL WALL PANEL, COLOR: PRE-WEATHERED GALVALUME
801	WINDOW, COLOR: CHARCOAL GREY
802	DOOR, COLOR: CHARCOAL GREY
803	STOREFRONT, COLOR: CHARCOAL GREY

EXTERIOR MATERIAL LEGEND

MATERIAL	KEYNOTE TEXT
	CONCRETE FINISH FACE
	BRICK FINISH FACE
	METAL PANEL SIDING
	METAL ROOF
	CONCRETE MSE WALL SYSTEM

KEY PLAN



BUILDING 1: GREAT HALL / SAWTOOTH

GREAT HALL BUILDING MATERIAL SAMPLES



MSE WALL SYSTEM
COLOR: GREY

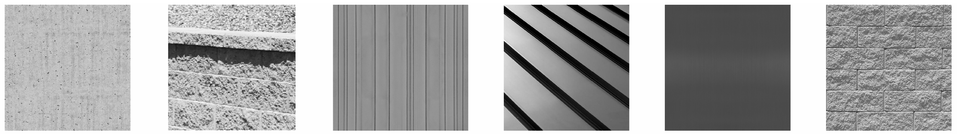
BRICK FINISH FACE
COLOR: RED

METAL PANEL SIDING
COLOR: CHARCOAL GREY

METAL ROOF
COLOR: CHARCOAL GREY

METAL FINISH
COLOR: CHARCOAL GREY

SAWTOOTH BUILDING MATERIAL SAMPLES



CONCRETE FINISH
COLOR: GREY

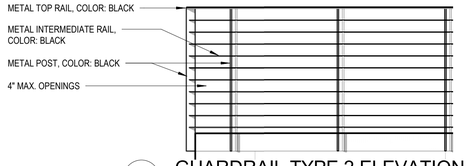
MSE WALL SYSTEM
COLOR: GREY

METAL PANEL SIDING
COLOR: PRE-WEATHERED GALVALUME

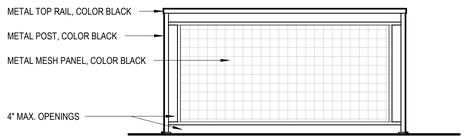
METAL ROOF
COLOR: CHARCOAL GREY

METAL FINISH
COLOR: CHARCOAL GREY

ARCHITECTURAL BLOCK
COLOR: GREY

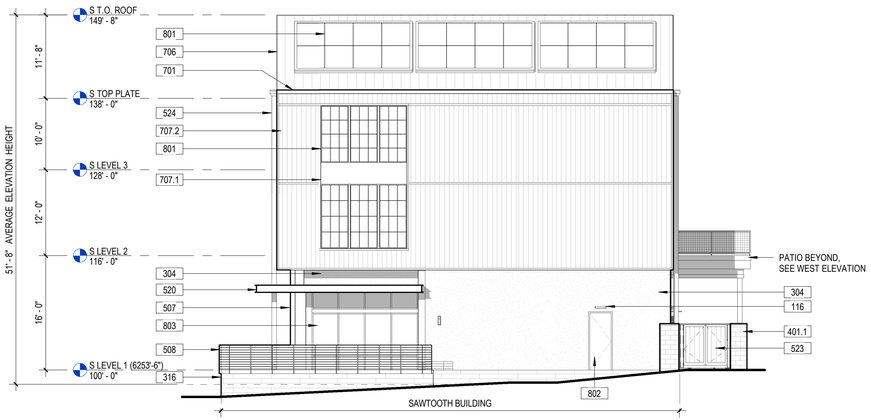


5 GUARDRAIL TYPE 2 ELEVATION
1/2" = 1'-0"

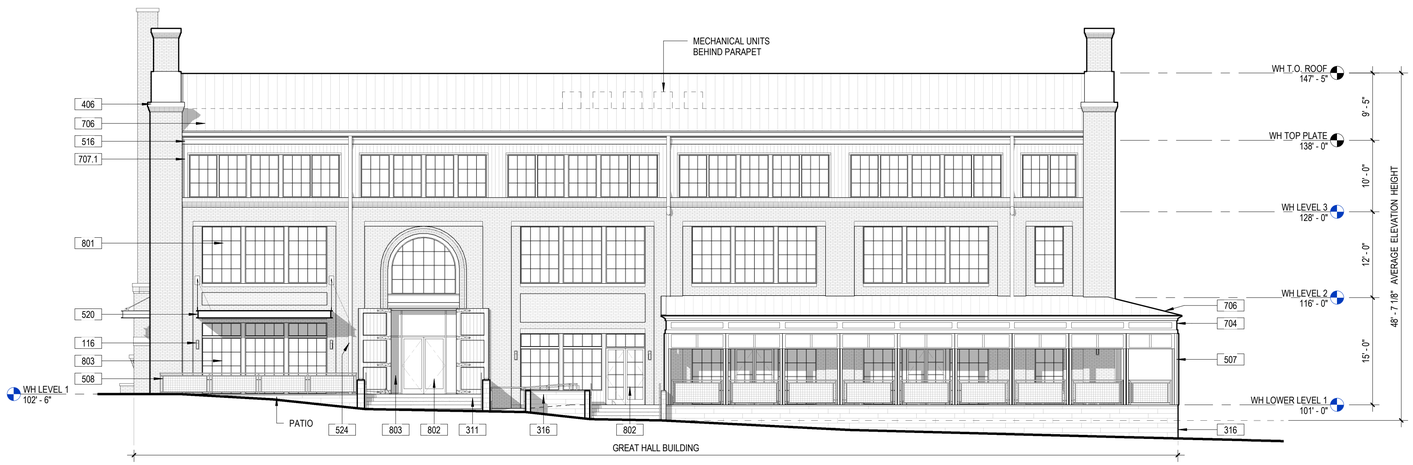


4 GUARDRAIL TYPE 1 ELEVATION
1/2" = 1'-0"

BUILDING HEIGHT	
ALLOWED	65 FEET
PROPOSED	
BUILDING SIDE	HEIGHT (FT)
SOUTH A	52.25
SOUTH B	51.41
WEST	53.25
NORTH A	51.67
NORTH B	51.67
EAST	56.25
AVERAGE HEIGHT	53.07 FT



3 BUILDING 1 - NORTH ELEVATION - A
1" = 10'-0"



2 BUILDING 1 - SOUTH ELEVATION - A
1" = 10'-0"



1 BUILDING 1A & 1B - EAST ELEVATION
1" = 10'-0"

BUILDING 1 - EXTERIOR ELEVATIONS
SHEET 44 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
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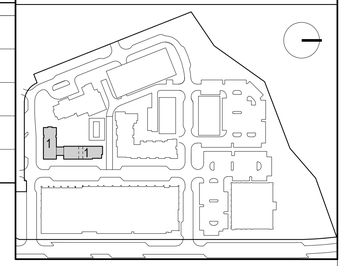
KEYNOTE LEGEND

KEY VALUE	KEYNOTE TEXT
116	EXTERIOR LIGHT
311	CONCRETE STAIR, COLOR: GREY
316	CONCRETE MSE (MECHANICALLY STABILIZED EARTH) WALL SYSTEM, COLOR: GRAY
317	CONCRETE PANEL, COLOR: GRAY
401.1	ARCHITECTURAL BLOCK, COLOR: GREY
402.1	BRICK FINISH FACE, COLOR: RED
406	COPING, COLOR: RED
507	STEEL COLUMN, COLOR: CHARCOAL GREY
508	METAL GUARDRAIL, COLOR: CHARCOAL GREY
516	FASCIA, COLOR: CHARCOAL GREY
520	METAL CANOPY, COLOR: CHARCOAL GREY
524	METAL DOWNSPOUT, COLOR: CHARCOAL GREY
701	METAL COPING, COLOR: CHARCOAL GREY
704	METAL PANEL, COLOR: CHARCOAL GREY
706	METAL ROOF, COLOR: CHARCOAL GREY
707.1	METAL WALL PANEL, COLOR: CHARCOAL GREY
707.2	METAL WALL PANEL, COLOR: PRE-WEATHERED GALVALUME
801	WINDOW, COLOR: CHARCOAL GREY
802	DOOR, COLOR: CHARCOAL GREY
803	STOREFRONT, COLOR: CHARCOAL GREY

EXTERIOR MATERIAL LEGEND

MATERIAL	KEYNOTE TEXT
	CONCRETE FINISH FACE
	BRICK FINISH FACE
	METAL PANEL SIDING
	METAL ROOF
	CONCRETE MSE WALL SYSTEM

KEY PLAN



BUILDING 1: GREAT HALL / SAWTOOTH

BUILDING HEIGHT

ALLOWED	65 FEET
PROPOSED	
BUILDING SIDE	HEIGHT (FT)
SOUTH A	52.25
SOUTH B	51.41
WEST	53.25
NORTH A	51.67
NORTH B	51.67
EAST	56.25
AVERAGE HEIGHT	53.07 FT

GREAT HALL BUILDING MATERIAL SAMPLES



MSE WALL SYSTEM
COLOR: GREY

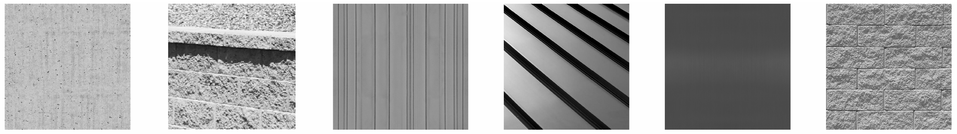
BRICK FINISH FACE
COLOR: RED

METAL PANEL SIDING
COLOR: CHARCOAL GREY

METAL ROOF
COLOR: CHARCOAL GREY

METAL FINISH
COLOR: CHARCOAL GREY

SAWTOOTH BUILDING MATERIAL SAMPLES



CONCRETE FINISH
COLOR: GREY

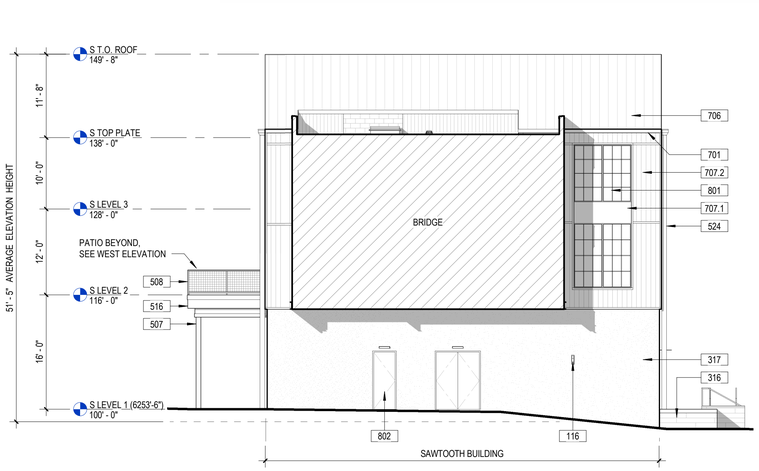
MSE WALL SYSTEM
COLOR: GREY

METAL PANEL SIDING
COLOR: PRE-WEATHERED GALVALUME

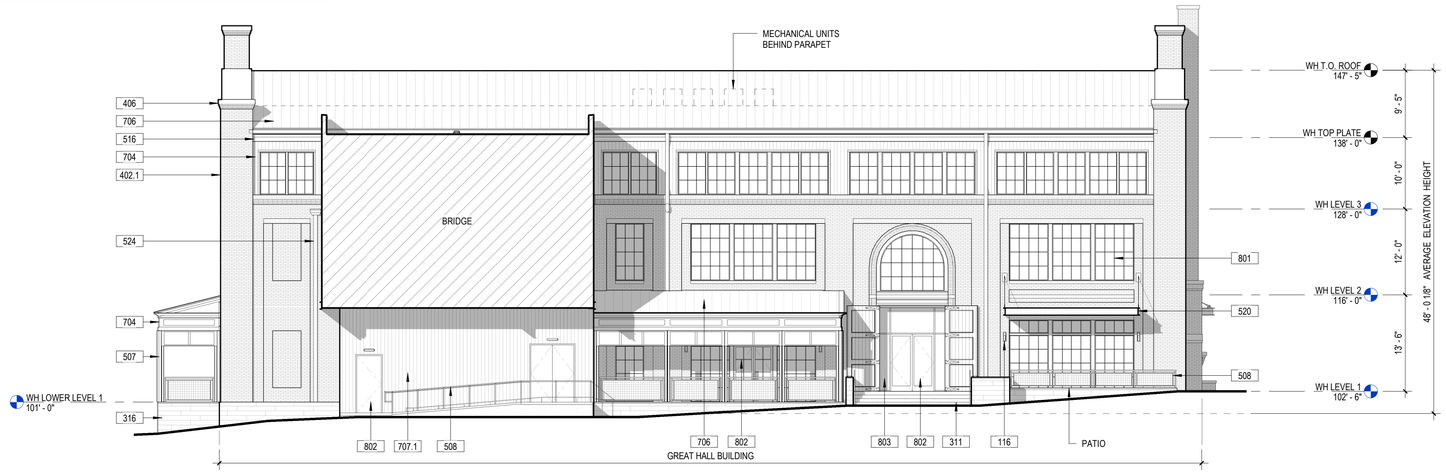
METAL ROOF
COLOR: CHARCOAL GREY

METAL FINISH
COLOR: CHARCOAL GREY

ARCHITECTURAL BLOCK
COLOR: GREY



3 BUILDING 1 - SOUTH ELEVATION - B
1" = 10'-0"



2 BUILDING 1 - NORTH ELEVATION - B
1" = 10'-0"



1 BUILDING 1 - WEST ELEVATION
1" = 10'-0"

BUILDING 1 - EXTERIOR ELEVATIONS
SHEET 45 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN

THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
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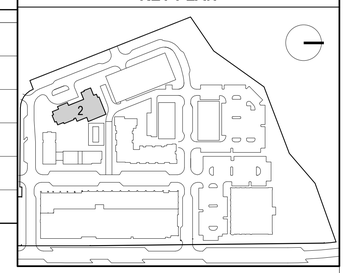
KEYNOTE LEGEND

Key Value	Keynote Text
116	EXTERIOR LIGHT
307	MASONRY LINTEL, COLOR: GREY
308	MASONRY HORIZONTAL BAND, COLOR: GREY
401.1	ARCHITECTURAL BLOCK, COLOR: GREY
402.2	BRICK FINISH FACE, COLOR: BEIGE
404	MASONRY FINISH PANEL, COLOR: BUFF
505	METAL SCREEN PANEL
507	STEEL COLUMN, COLOR: CHARCOAL GREY
508	METAL GUARDRAIL, COLOR: CHARCOAL GREY
516	FASCIA, COLOR: CHARCOAL GREY
701	METAL COPING, COLOR: CHARCOAL GREY
704	METAL PANEL, COLOR: CHARCOAL GREY
707.1	METAL WALL PANEL, COLOR: CHARCOAL GREY
707.3	METAL WALL PANEL, COLOR: CORTEN
801	WINDOW, COLOR: CHARCOAL GREY
802	DOOR, COLOR: CHARCOAL GREY
803	STOREFRONT, COLOR: CHARCOAL GREY
804.1	OVERHEAD GARAGE DOOR, COLOR: CHARCOAL GREY

EXTERIOR MATERIAL LEGEND

MATERIAL	KEYNOTE TEXT
	CONCRETE FINISH FACE
	BRICK FINISH FACE
	MASONRY FINISH PANEL SIDING
	METAL PANEL SIDING
	METAL ROOF
	ARCHITECTURAL BLOCK

KEY PLAN



BUILDING 2: THE CASTLE ROCK HOTEL

BUILDING HEIGHT

HEIGHT ALLOWED:	90 FEET
PROPOSED	
BUILDING SIDE	HEIGHT (FT)
SOUTH	76.58
WEST	69.25
NORTH	76.67
EAST	73.25
AVERAGE HEIGHT	73.56 FT

HOTEL BUILDING MATERIAL SAMPLES



BRICK FINISH FACE
COLOR: BEIGE



MASONRY FINISH WALL PANEL
COLOR: BEIGE



WEATHERING STEEL SIDING
COLOR: RED



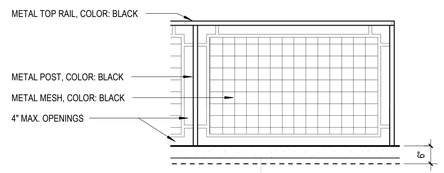
METAL FINISH
COLOR: BRONZE



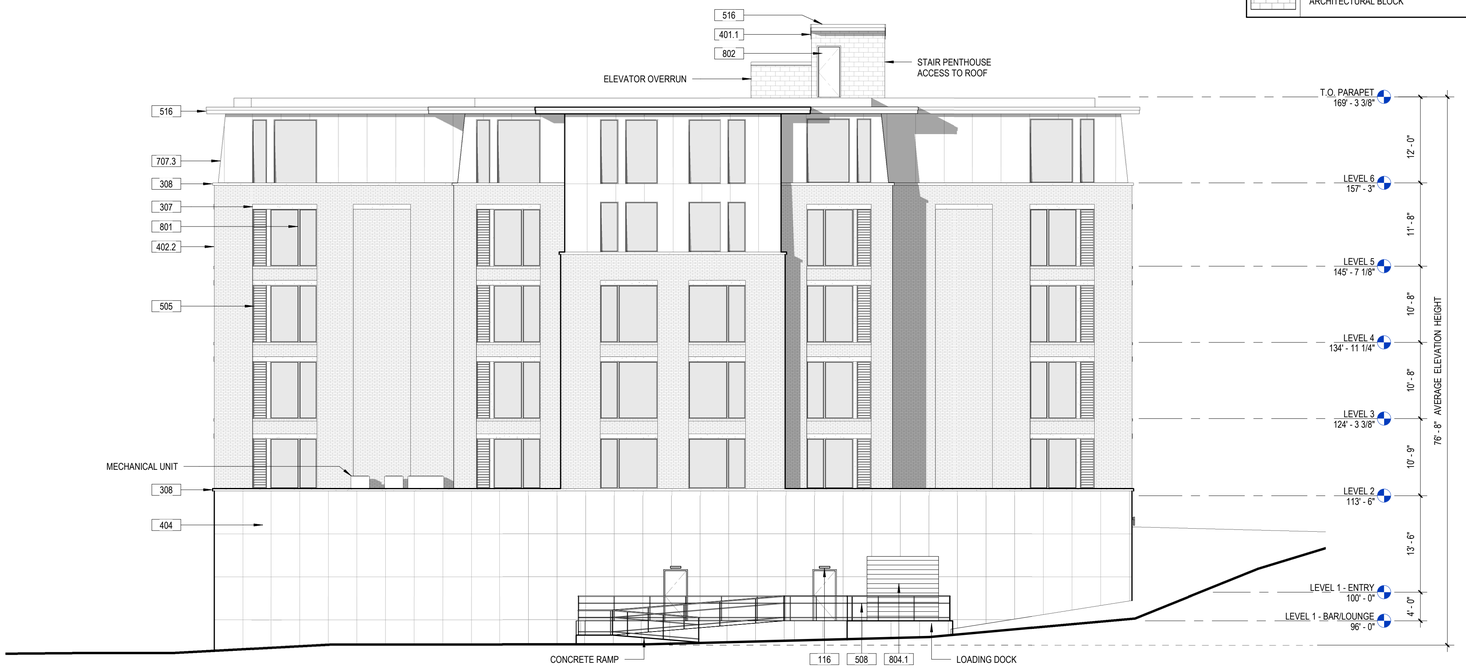
METAL PANEL SIDING
COLOR: CHARCOAL GREY



ARCHITECTURAL BLOCK
COLOR: GREY



3 PATIO GUARDRAIL ELEVATION
1/2" = 1'-0"



2 BUILDING 2 - NORTH ELEVATION
1" = 10'-0"



1 BUILDING 2 - WEST ELEVATION (STREET)
1" = 10'-0"

BUILDING 2 - EXTERIOR ELEVATIONS
SHEET 46 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN

THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

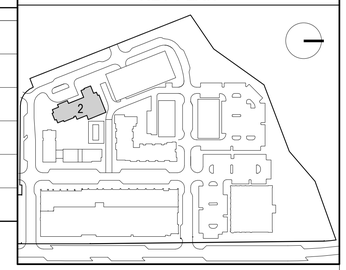
KEYNOTE LEGEND

Key Value	Keynote Text
116	EXTERIOR LIGHT
307	MASONRY LINTEL, COLOR: GREY
308	MASONRY HORIZONTAL BAND, COLOR: GREY
401.1	ARCHITECTURAL BLOCK, COLOR: GREY
402.2	BRICK FINISH FACE, COLOR: BEIGE
404	MASONRY FINISH PANEL, COLOR: BUFF
406	COPING, COLOR: RED
505	METAL SCREEN PANEL
507	STEEL COLUMN, COLOR: CHARCOAL GREY
516	FASCIA, COLOR: CHARCOAL GREY
701	METAL COPING, COLOR: CHARCOAL GREY
704	METAL PANEL, COLOR: CHARCOAL GREY
706	METAL ROOF, COLOR: CHARCOAL GREY
707.1	METAL WALL PANEL, COLOR: CHARCOAL GREY
707.3	METAL WALL PANEL, COLOR: CORTEN
801	WINDOW, COLOR: CHARCOAL GREY
802	DOOR, COLOR: CHARCOAL GREY
803	STOREFRONT, COLOR: CHARCOAL GREY

EXTERIOR MATERIAL LEGEND

MATERIAL	KEYNOTE TEXT
	CONCRETE FINISH FACE
	BRICK FINISH FACE
	MASONRY FINISH PANEL SIDING
	METAL PANEL SIDING
	METAL ROOF
	ARCHITECTURAL BLOCK

KEY PLAN



BUILDING 2: THE CASTLE ROCK HOTEL

HOTEL BUILDING MATERIAL SAMPLES



BRICK FINISH FACE
COLOR: BEIGE



MASONRY FINISH WALL PANEL
COLOR: BEIGE



WEATHERING STEEL SIDING
COLOR: RED



METAL FINISH
COLOR: BRONZE



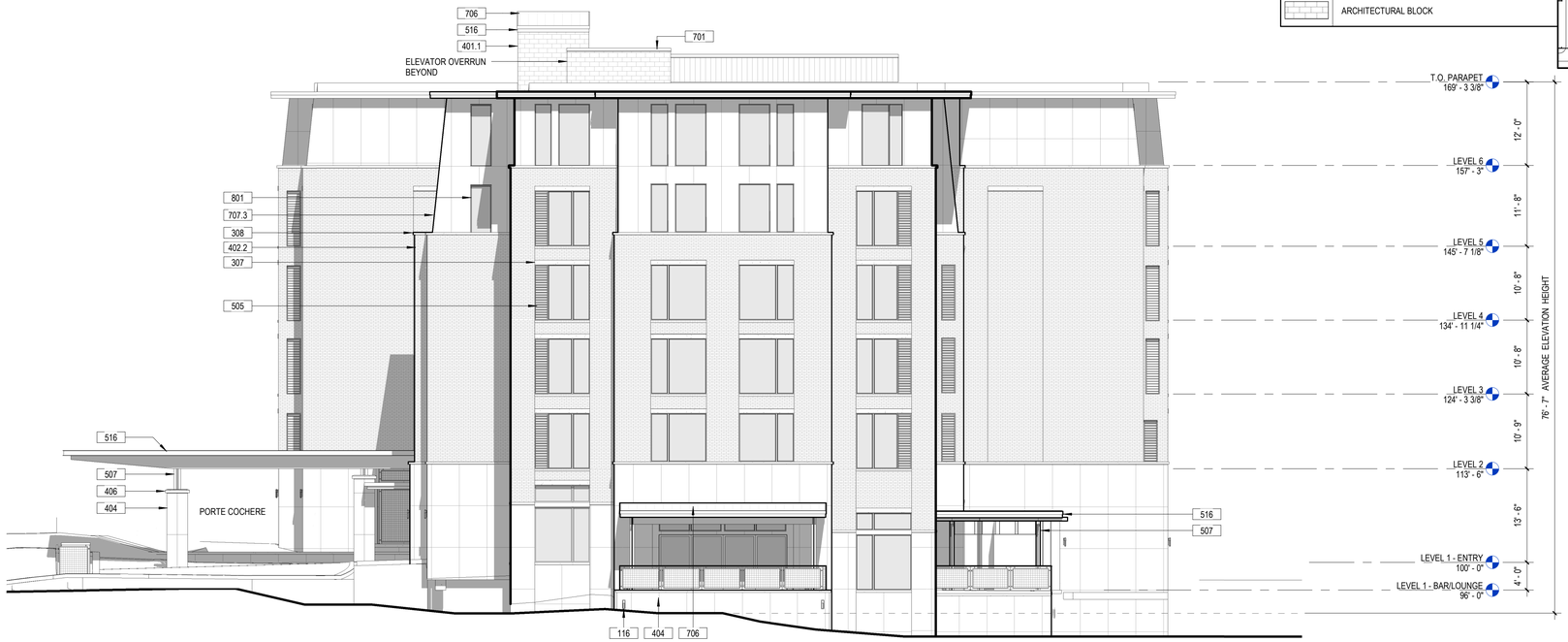
METAL PANEL SIDING
COLOR: CHARCOAL GREY



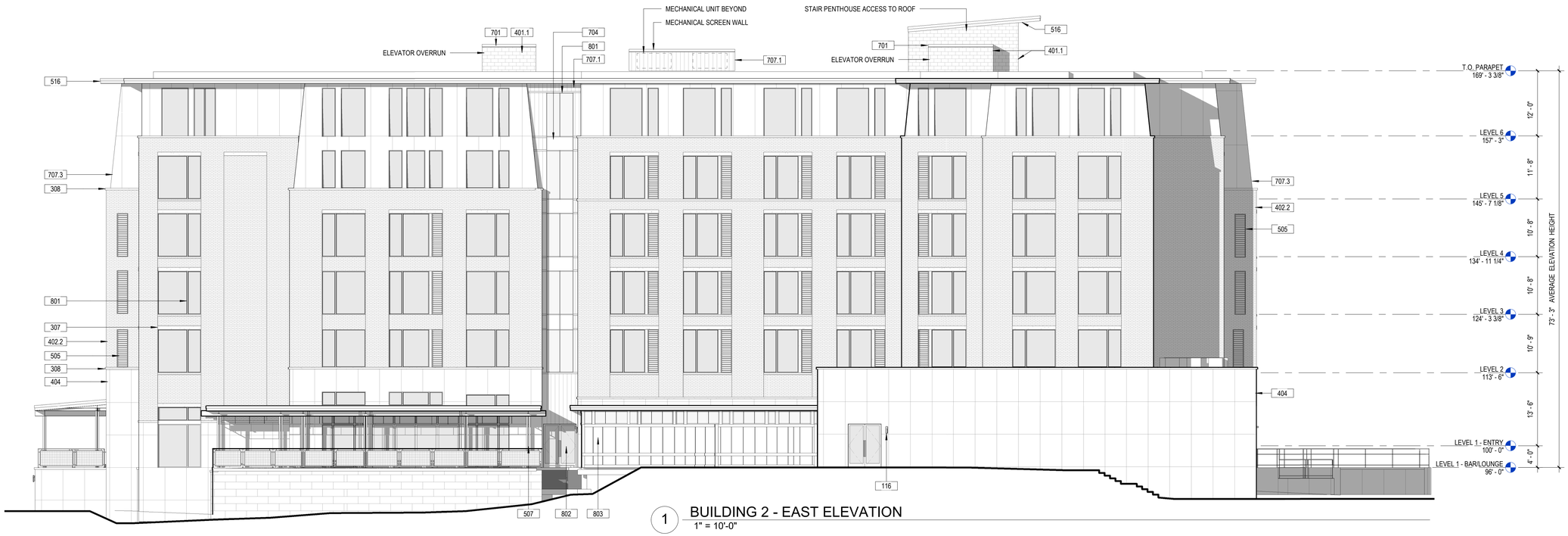
ARCHITECTURAL BLOCK
COLOR: GREY

BUILDING HEIGHT

HEIGHT ALLOWED:	90 FEET
PROPOSED	
BUILDING SIDE	HEIGHT (FT)
SOUTH	76.58
WEST	69.25
NORTH	76.67
EAST	73.25
AVERAGE HEIGHT	73.56 FT



2 BUILDING 2 - SOUTH ELEVATION
1" = 10'-0"



1 BUILDING 2 - EAST ELEVATION
1" = 10'-0"

BUILDING 2 - EXTERIOR ELEVATIONS
SHEET 47 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN

THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

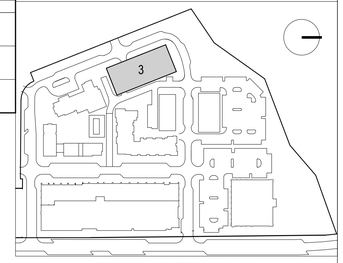
KEYNOTE LEGEND

Key Value	Keynote Text
401.1	ARCHITECTURAL BLOCK, COLOR: GREY
401.3	ARCHITECTURAL BLOCK, COLOR: BEIGE
520	METAL CANOPY, COLOR: CHARCOAL GREY
523	METAL GATE, COLOR: CHARCOAL GREY
701	METAL COPING, COLOR: CHARCOAL GREY
707.4	METAL WALL PANEL, COLOR: BRONZE
802	DOOR, COLOR: CHARCOAL GREY
803	STOREFRONT, COLOR: CHARCOAL GREY

EXTERIOR MATERIAL LEGEND

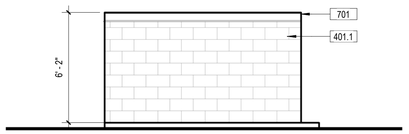
MATERIAL	KEYNOTE TEXT
	CONCRETE FINISH FACE
	ARCHITECTURAL BLOCK
	METAL PANEL

KEY PLAN

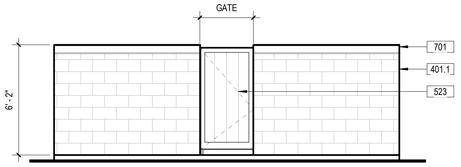


BUILDING 3: PARKING GARAGE

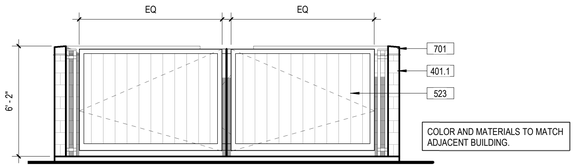
BUILDING HEIGHT	
HEIGHT ALLOWED:	65 FEET
PROPOSED	
BUILDING SIDE	HEIGHT (FT)
SOUTH	29.08
WEST	14.25
NORTH	24.67
EAST	30.08
AVERAGE HEIGHT	24.52 FT



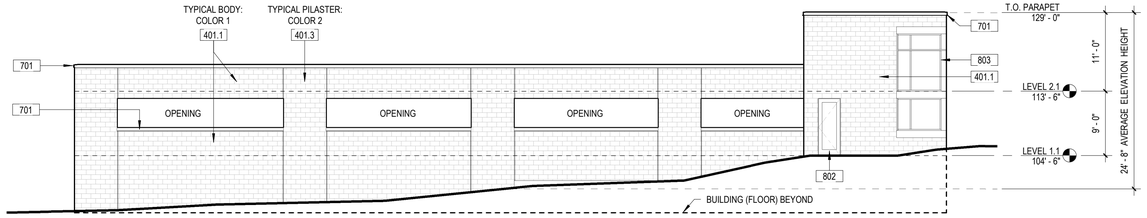
7 TYPICAL TRASH ENCLOSURE - SIDE ELEVATION
1/4" = 1'-0"



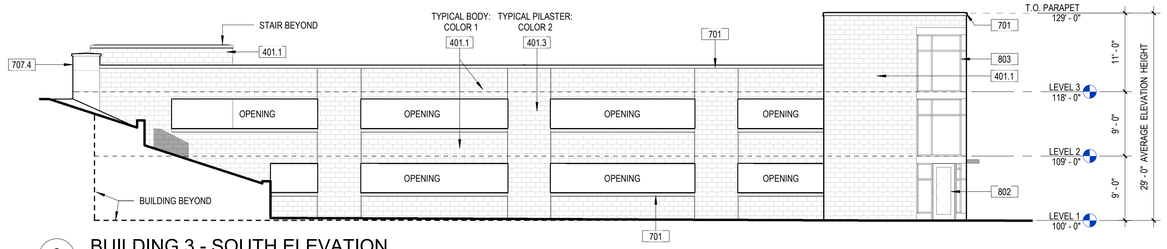
6 TYPICAL TRASH ENCLOSURE - REAR ELEVATION
1/4" = 1'-0"



5 TYPICAL TRASH ENCLOSURE - FRONT ELEVATION
1/4" = 1'-0"



4 BUILDING 3 - NORTH ELEVATION
1" = 10'-0"



3 BUILDING 3 - SOUTH ELEVATION
1" = 10'-0"

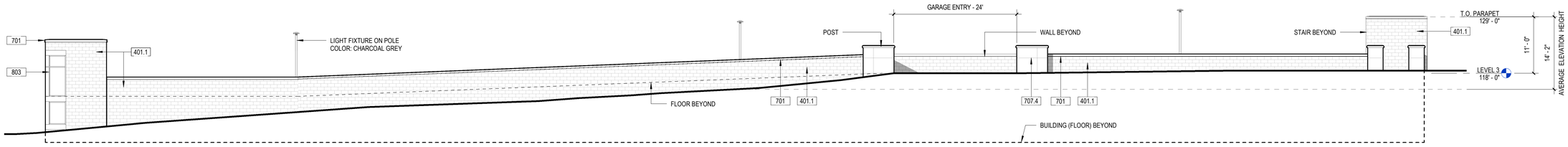
GARAGE & TRASH ENCLOSURE BUILDING MATERIAL SAMPLES



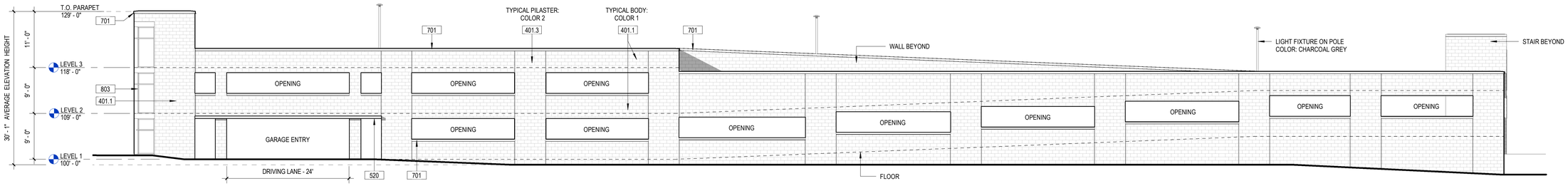
ARCHITECTURAL BLOCK
COLOR 1: GREY
COLOR 2: BEIGE

METAL FINISH
COLOR: MATTE BLACK

METAL PANEL SIDING
COLOR: BRONZE



2 BUILDING 3 - WEST ELEVATION
1" = 10'-0"



1 BUILDING 3 - EAST ELEVATION
1" = 10'-0"

BUILDING 3 - EXTERIOR ELEVATIONS
SHEET 48 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN

THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

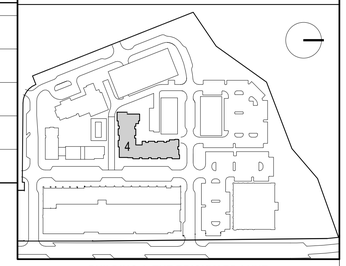
KEYNOTE LEGEND

KEY VALUE	KEYNOTE TEXT
103	BALCONY ASSEMBLY
116	EXTERIOR LIGHT
311	CONCRETE STAIR, COLOR: GREY
401.3	ARCHITECTURAL BLOCK, COLOR: BEIGE
402.2	BRICK FINISH FACE, COLOR: BEIGE
507	STEEL COLUMN, COLOR: CHARCOAL GREY
508	METAL GUARDRAIL, COLOR: CHARCOAL GREY
520	METAL CANOPY, COLOR: CHARCOAL GREY
523	METAL GATE, COLOR: CHARCOAL GREY
701	METAL COPING, COLOR: CHARCOAL GREY
707.1	METAL WALL PANEL, COLOR: CHARCOAL GREY
710.3	FIBER CEMENT SIDING, COLOR: GREY
801	WINDOW, COLOR: CHARCOAL GREY
802	DOOR, COLOR: CHARCOAL GREY
803	STOREFRONT, COLOR: CHARCOAL GREY

EXTERIOR MATERIAL LEGEND

MATERIAL	KEYNOTE TEXT
	CONCRETE FINISH FACE
	BRICK FINISH FACE
	FIBER CEMENT SIDING
	FIBER CEMENT SIDING
	ARCHITECTURAL BLOCK

KEY PLAN



BUILDING 4: THE BRICKYARD LUXE

BUILDING HEIGHT

HEIGHT ALLOWED:	65 FEET
PROPOSED	
BUILDING SIDE	HEIGHT (FT)
SOUTH	53.42
WEST	51.25
NORTH	60.50
EAST	59.83
AVERAGE HEIGHT	56.25 FT

BRICKYARD LUXE BUILDING MATERIAL SAMPLES



BRICK FINISH FACE
COLOR: BEIGE



ARCHITECTURAL BLOCK
COLOR: BEIGE



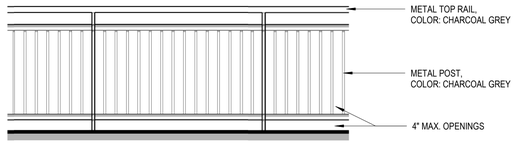
FIBER CEMENT SIDING
COLOR: CHARCOAL GREY



FIBER CEMENT SIDING
COLOR: BEIGE



METAL FINISH
COLOR: CHARCOAL GREY



3 GUARDRAIL ELEVATION
1/2" = 1'-0"



2 BUILDING 4 - SOUTH ELEVATION
1" = 10'-0"



1 BUILDING 4 - EAST ELEVATION
1" = 10'-0"

BUILDING 4 - EXTERIOR ELEVATIONS
SHEET 49 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN

THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

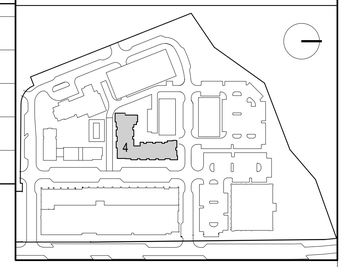
KEYNOTE LEGEND

KEY VALUE	KEYNOTE TEXT
103	BALCONY ASSEMBLY
116	EXTERIOR LIGHT
311	CONCRETE STAIR, COLOR: GREY
401.3	ARCHITECTURAL BLOCK, COLOR: BEIGE
402.2	BRICK FINISH FACE, COLOR: BEIGE
508	METAL GUARDRAIL, COLOR: CHARCOAL GREY
520	METAL CANOPY, COLOR: CHARCOAL GREY
701	METAL COPING, COLOR: CHARCOAL GREY
710.1	FIBER CEMENT SIDING, COLOR: BEIGE
710.3	FIBER CEMENT SIDING, COLOR: GREY
801	WINDOW, COLOR: CHARCOAL GREY
802	DOOR, COLOR: CHARCOAL GREY
803	STOREFRONT, COLOR: CHARCOAL GREY

EXTERIOR MATERIAL LEGEND

MATERIAL	KEYNOTE TEXT
	CONCRETE FINISH FACE
	BRICK FINISH FACE
	FIBER CEMENT SIDING
	FIBER CEMENT SIDING
	ARCHITECTURAL BLOCK

KEY PLAN



BUILDING 4: THE BRICKYARD LUXE

BUILDING HEIGHT

HEIGHT ALLOWED:	65 FEET
PROPOSED	
BUILDING SIDE	HEIGHT (FT)
SOUTH	53.42
WEST	51.25
NORTH	60.50
EAST	59.83
AVERAGE HEIGHT	56.25 FT

BRICKYARD LUXE BUILDING MATERIAL SAMPLES



BRICK FINISH FACE
COLOR: BEIGE



ARCHITECTURAL BLOCK
COLOR: BEIGE



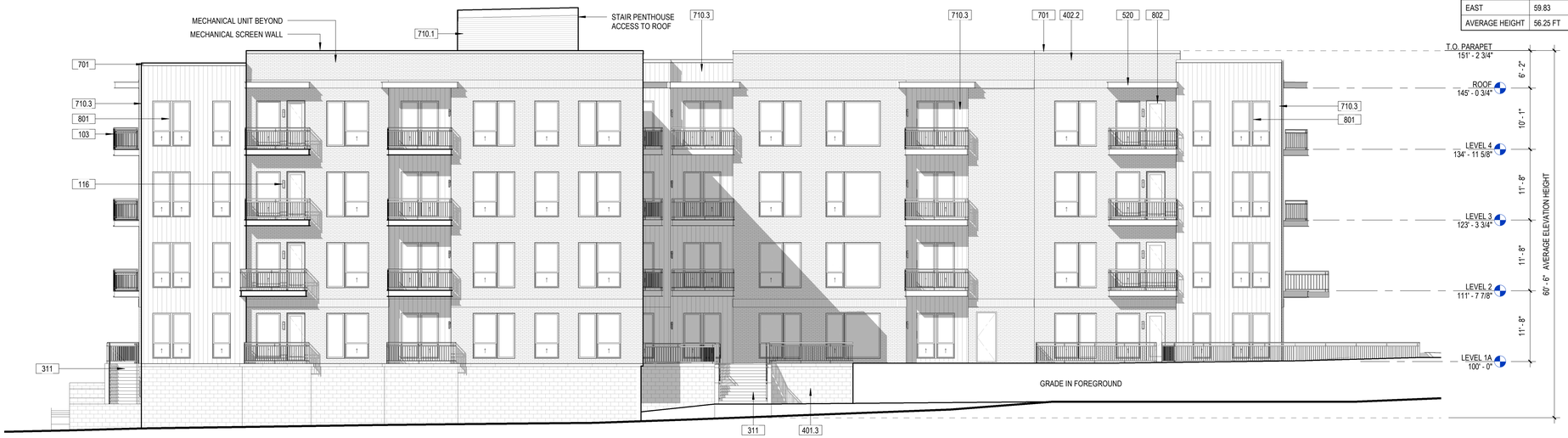
FIBER CEMENT SIDING
COLOR: CHARCOAL GREY



FIBER CEMENT SIDING
COLOR: BEIGE



METAL FINISH
COLOR: CHARCOAL GREY



2 BUILDING 4 - NORTH ELEVATION
1" = 10'-0"



1 BUILDING 4 - WEST ELEVATION
1" = 10'-0"

BUILDING 4 - EXTERIOR ELEVATIONS
SHEET 50 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN

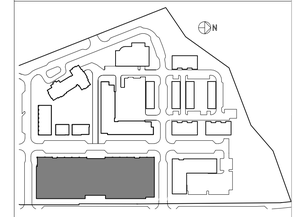
SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

BUILDING HEIGHT	
ALLOWED	75 FEET
PROPOSED	
BUILDING SIDE	HEIGHT (FT)
SOUTH	69.02
WEST	66.70
NORTH	75.30
EAST	77.62
AVERAGE HEIGHT	72.16 FT

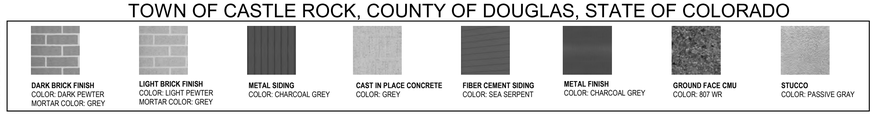
EXTERIOR MATERIAL LEGEND

MATERIAL	KEYNOTE TEXT
	STUCCO WALL FINISH
	BRICK FINISH FACE
	ARCHITECTURAL BLOCK
	HORIZONTAL METAL PANEL SIDING
	VERTICAL METAL PANEL SIDING
	HORIZONTAL FIBER CEMENT SIDING

KEY PLAN



MATERIALS



DARK BRICK FINISH
COLOR: DARK PEWTER
MORTAR COLOR: GREY

LIGHT BRICK FINISH
COLOR: LIGHT PEWTER
MORTAR COLOR: GREY

METAL SIDING
COLOR: CHARCOAL GREY

CAST IN PLACE CONCRETE
COLOR: GREY

FIBER CEMENT SIDING
COLOR: SEA SERPENT

METAL FINISH
COLOR: CHARCOAL GREY

GROUND FACE CMU
COLOR: 807 WR

STUCCO
COLOR: PASSIVE GRAY



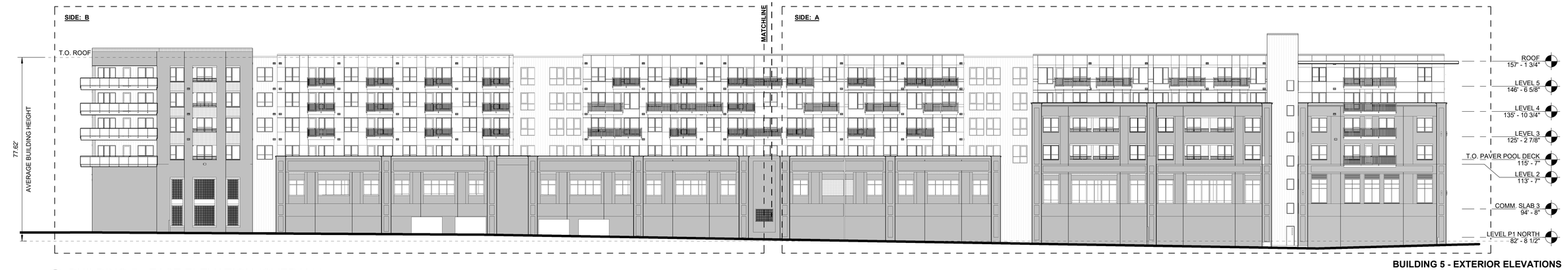
3 BUILDING 5 - NORTH ELEVATION (OVERALL)
1" = 20'-0"



4 BUILDING 5 - SOUTH ELEVATION (OVERALL)
1" = 20'-0"



2 BUILDING 5 - WEST ELEVATION (STREET) (OVERALL)
1" = 20'-0"



1 BUILDING 5 - EAST ELEVATION (OVERALL)
1" = 20'-0"

BUILDING 5 - EXTERIOR ELEVATIONS
SHEET 51 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

KEYNOTE LEGEND

Key Value	Keynote Text
112	ELEVATOR PENTHOUSE
116	EXTERIOR LIGHT
118	GLASS GUARDRAIL, CLEAR
402.3	BRICK FINISH FACE, COLOR: IRONCREST
402.4	BRICK FINISH FACE, COLOR: LIGHT GREY
402.5	BRICK SOLDIER COURSE, COLOR: MATCH FIELD BRICK
402.6	BRICK SOLDIER CORNICE DETAIL, COLOR: MATCH FIELD BRICK
402.11	BRICK INSET DETAIL, COLOR: MATCH FIELD COLOR
402.12	BRICK PATTERN DETAILING, COLOR: MATCH FIELD BRICK
501	METAL GUARDRAIL, 42" TO TOP OF RAIL
501.1	BALCONY GUARDRAIL 1, RE: SHEET 66
501.2	BALCONY GUARDRAIL 2, RE: SHEET 66
503	METAL CANOPY, COLOR: MATTE BLACK

KEYNOTE LEGEND

Key Value	Keynote Text
519	METAL PERGOLA, COLOR: MATTE BLACK
525	METAL SCUPPER, COLOR: CHARCOAL GREY
602	WOOD SOFFIT, T&G FINISH
701	METAL COPING, COLOR: MATTE BLACK
704	METAL PANEL, COLOR: MATTE BLACK
707.1	VERTICAL METAL WALL PANEL, COLOR: MATTE BLACK
711.4	HORIZONTAL FIBER CEMENT SIDING, COLOR: GRAYS HARBOR
801.2	VINYL WINDOW, COLOR: ADOBE
801.5	COMPOSITE WINDOW, COLOR: MATTE BLACK
801.6	COMPOSITE WINDOW. COLOR: ADOBE
804.3	OVERHEAD GARAGE DOOR, COLOR: MATTE BLACK AND CLEAR GLAZING
805	LOUVER, COLOR: MATCH WALL COLOR

SITE DEVELOPMENT PLAN

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M., TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

MATERIALS

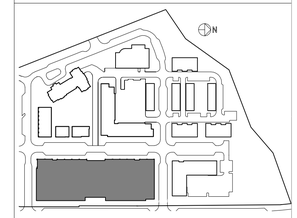
- **DARK BRICK FINISH** — COLOR: DARK PEWTER, MORTAR COLOR: GREY
- **LIGHT BRICK FINISH** — COLOR: LIGHT PEWTER, MORTAR COLOR: GREY
- **METAL SIDING** — COLOR: CHARCOAL GREY
- **CAST IN PLACE CONCRETE** — COLOR: GREY
- **FIBER CEMENT SIDING** — COLOR: SEA SERPENT
- **METAL FINISH** — COLOR: CHARCOAL GREY
- **GROUND FACE CMU** — COLOR: 807 WR
- **STUCCO** — COLOR: PASSIVE GRAY

BUILDING HEIGHT	
ALLOWED	75 FEET
PROPOSED	
BUILDING SIDE	HEIGHT (FT)
SOUTH	69.02
WEST	66.70
NORTH	75.30
EAST	77.62
AVERAGE HEIGHT	72.16 FT

EXTERIOR MATERIAL LEGEND

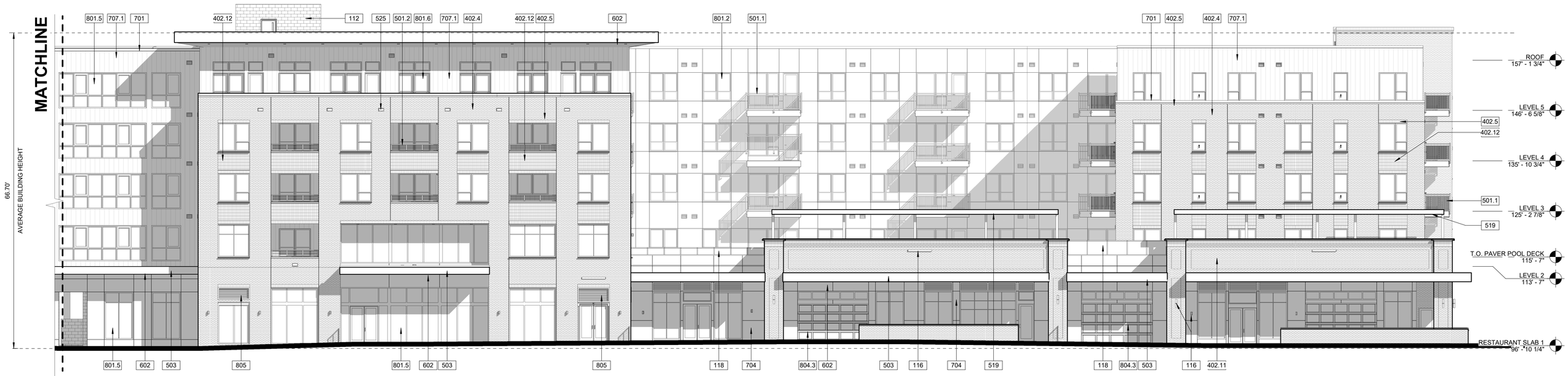
MATERIAL	KEYNOTE TEXT
	STUCCO WALL FINISH
	BRICK FINISH FACE
	ARCHITECTURAL BLOCK
	HORIZONTAL METAL PANEL SIDING
	VERTICAL METAL PANEL SIDING
	HORIZONTAL FIBER CEMENT SIDING

KEY PLAN





2 BUILDING 5 - WEST ELEVATION - A
1" = 10'-0"



1 BUILDING 5 - WEST ELEVATION - B
1" = 10'-0"

BUILDING 5 - EXTERIOR ELEVATIONS
SHEET 52 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

KEYNOTE LEGEND

Key Value	Keynote Text
101	STAIR ENCLOSURE
102	OPEN TO PARKING
118	GLASS GUARDRAIL, CLEAR
303	PRECAST CONCRETE WINDOW SILL, COLOR: GREY
402.3	BRICK FINISH FACE, COLOR: IRONCREST
402.4	BRICK FINISH FACE, COLOR: LIGHT GREY
402.5	BRICK SOLDIER COURSE, COLOR: MATCH FIELD BRICK
402.6	BRICK SOLDIER CORNICE DETAIL, COLOR: MATCH FIELD BRICK
402.11	BRICK INSET DETAIL, COLOR: MATCH FIELD COLOR
402.12	BRICK PATTERN DETAILING, COLOR: MATCH FIELD BRICK
501	METAL GUARDRAIL, 42" TO TOP OF RAIL
501.1	BALCONY GUARDRAIL 1, RE: SHEET 66

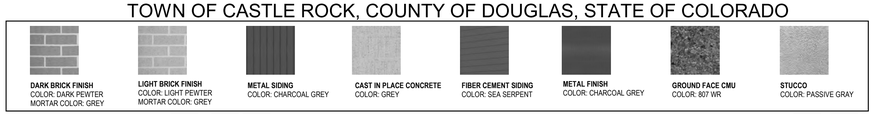
KEYNOTE LEGEND

Key Value	Keynote Text
501.2	BALCONY GUARDRAIL 2, RE: SHEET 66
503	METAL CANOPY, COLOR: MATTE BLACK
511.2	TRANSFORMERS AT EXTERIOR WALL
527	METAL MESH PANEL, COLOR: BLACK
701	METAL COPING, COLOR: MATTE BLACK
703	STUCCO WALL FINISH, COLOR: DOVETAIL
707.1	VERTICAL METAL WALL PANEL, COLOR: MATTE BLACK
801.2	VINYL WINDOW, COLOR: ADOBE
801.6	COMPOSITE WINDOW, COLOR: ADOBE
805	LOUVER, COLOR: MATCH WALL COLOR

SITE DEVELOPMENT PLAN

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

MATERIALS

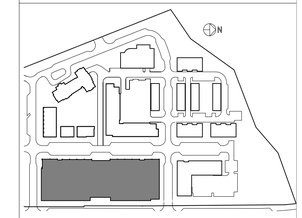


BUILDING HEIGHT	
ALLOWED	75 FEET
PROPOSED	
BUILDING SIDE	HEIGHT (FT)
SOUTH	69.02
WEST	66.70
NORTH	75.30
EAST	77.62
AVERAGE HEIGHT	72.16 FT

EXTERIOR MATERIAL LEGEND

MATERIAL	KEYNOTE TEXT
	STUCCO WALL FINISH
	BRICK FINISH FACE
	ARCHITECTURAL BLOCK
	HORIZONTAL METAL PANEL SIDING
	VERTICAL METAL PANEL SIDING
	HORIZONTAL FIBER CEMENT SIDING

KEY PLAN





1 BUILDING 5 - EAST ELEVATION - A
1" = 10'-0"

2 BUILDING 5 - EAST ELEVATION B
1" = 10'-0"

BUILDING 5 - EXTERIOR ELEVATIONS
SHEET 53 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

KEYNOTE LEGEND

Key Value	Keynote Text
116	EXTERIOR LIGHT
118	GLASS GUARDRAIL, CLEAR
303	PRECAST CONCRETE WINDOW SILL, COLOR: GREY
305	PRECAST CONCRETE COPING, COLOR: GREY
307	PRECAST CONCRETE LINTEL, COLOR: GREY
402.3	BRICK FINISH FACE, COLOR: IRONCREST
402.4	BRICK FINISH FACE, COLOR: LIGHT GREY
402.5	BRICK SOLDIER COURSE, COLOR: MATCH FIELD BRICK
402.6	BRICK SOLDIER CORNICE DETAIL, COLOR: MATCH FIELD BRICK
402.12	BRICK PATTERN DETAILING, COLOR: MATCH FIELD BRICK
501	METAL GUARDRAIL, 42" TO TOP OF RAIL
501.1	BALCONY GUARDRAIL 1, RE: SHEET 66
503	METAL CANOPY, COLOR: MATTE BLACK

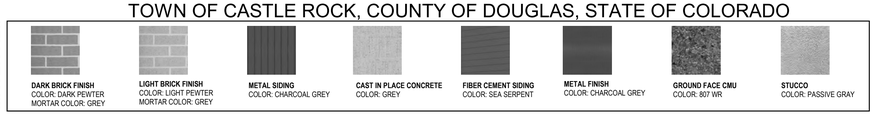
KEYNOTE LEGEND

Key Value	Keynote Text
519	METAL PERGOLA, COLOR: MATTE BLACK
602	WOOD SOFFIT, T&G FINISH
701	METAL COPING, COLOR: MATTE BLACK
703	STUCCO WALL FINISH, COLOR: DOVETAIL
704	METAL PANEL, COLOR: MATTE BLACK
707.1	VERTICAL METAL WALL PANEL, COLOR: MATTE BLACK
711.4	HORIZONTAL FIBER CEMENT SIDING, COLOR: GRAYS HARBOR
801.5	COMPOSITE WINDOW, COLOR: MATTE BLACK
801.6	COMPOSITE WINDOW. COLOR: ADOBE
804.1	OVERHEAD GARAGE DOOR, COLOR: MATTE BLACK
805	LOUVER, COLOR: MATCH WALL COLOR

SITE DEVELOPMENT PLAN

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

MATERIALS

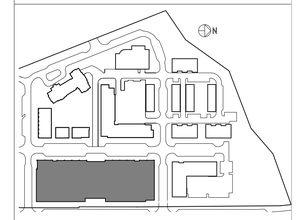


BUILDING HEIGHT	
ALLOWED	75 FEET
PROPOSED	
BUILDING SIDE	HEIGHT (FT)
SOUTH	69.02
WEST	66.70
NORTH	75.30
EAST	77.62
AVERAGE HEIGHT	72.16 FT

EXTERIOR MATERIAL LEGEND

MATERIAL	KEYNOTE TEXT
	STUCCO WALL FINISH
	BRICK FINISH FACE
	ARCHITECTURAL BLOCK
	HORIZONTAL METAL PANEL SIDING
	VERTICAL METAL PANEL SIDING
	HORIZONTAL FIBER CEMENT SIDING

KEY PLAN





2 BUILDING 5 - SOUTH ELEVATION
1" = 10'-0"



1 BUILDING 5 - NORTH ELEVATION
1" = 10'-0"

BUILDING 5 - EXTERIOR ELEVATIONS
SHEET 54 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

KEYNOTE LEGEND

Key Value	Keynote Text
101	STAIR ENCLOSURE
112	ELEVATOR PENTHOUSE
116	EXTERIOR LIGHT
303	PRECAST CONCRETE WINDOW SILL, COLOR: GREY
402.4	BRICK FINISH FACE, COLOR: LIGHT GREY
402.5	BRICK SOLDIER COURSE, COLOR: MATCH FIELD BRICK
402.12	BRICK PATTERN DETAILING, COLOR: MATCH FIELD BRICK
501.1	BALCONY GUARDRAIL 1, RE: SHEET 66
519	METAL PERGOLA, COLOR: MATTE BLACK

KEYNOTE LEGEND

Key Value	Keynote Text
602	WOOD SOFFIT, T&G FINISH
701	METAL COPING, COLOR: MATTE BLACK
703	STUCCO WALL FINISH, COLOR: DOVETAIL
707.1	VERTICAL METAL WALL PANEL, COLOR: MATTE BLACK
710.3	VERTICAL FIBER CEMENT SIDING, COLOR: GREY
801.2	VINYL WINDOW, COLOR: ADOBE
801.5	COMPOSITE WINDOW, COLOR: MATTE BLACK
801.6	COMPOSITE WINDOW. COLOR: ADOBE
805	LOUVER, COLOR: MATCH WALL COLOR

SITE DEVELOPMENT PLAN

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

MATERIALS

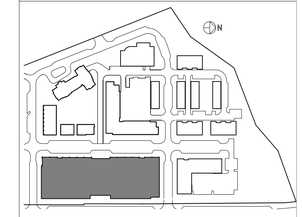
- **DARK BRICK FINISH** — COLOR: DARK PEWTER, MORTAR COLOR: GREY
- **LIGHT BRICK FINISH** — COLOR: LIGHT PEWTER, MORTAR COLOR: GREY
- **METAL SIDING** — COLOR: CHARCOAL GREY
- **CAST IN PLACE CONCRETE** — COLOR: GREY
- **FIBER CEMENT SIDING** — COLOR: SEA SERPENT
- **METAL FINISH** — COLOR: CHARCOAL GREY
- **GROUND FACE CMU** — COLOR: 807 WR
- **STUCCO** — COLOR: PASSIVE GRAY

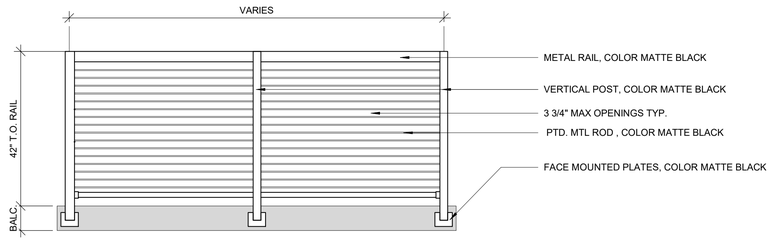
BUILDING HEIGHT	
ALLOWED	75 FEET
PROPOSED	
BUILDING SIDE	HEIGHT (FT)
SOUTH	69.02
WEST	66.70
NORTH	75.30
EAST	77.62
AVERAGE HEIGHT	72.16 FT

EXTERIOR MATERIAL LEGEND

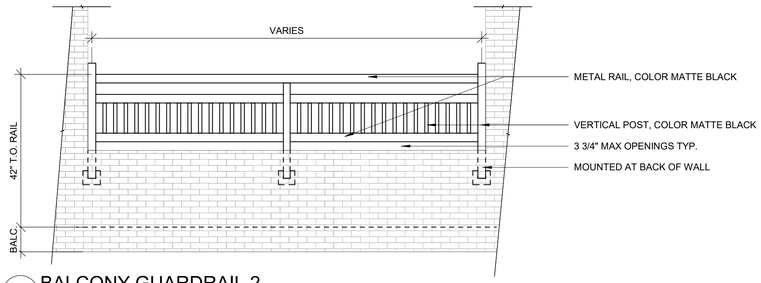
MATERIAL	KEYNOTE TEXT
	STUCCO WALL FINISH
	BRICK FINISH FACE
	ARCHITECTURAL BLOCK
	HORIZONTAL METAL PANEL SIDING
	VERTICAL METAL PANEL SIDING
	HORIZONTAL FIBER CEMENT SIDING

KEY PLAN





4 BALCONY GUARDRAIL 1
3/8" = 1'-0"



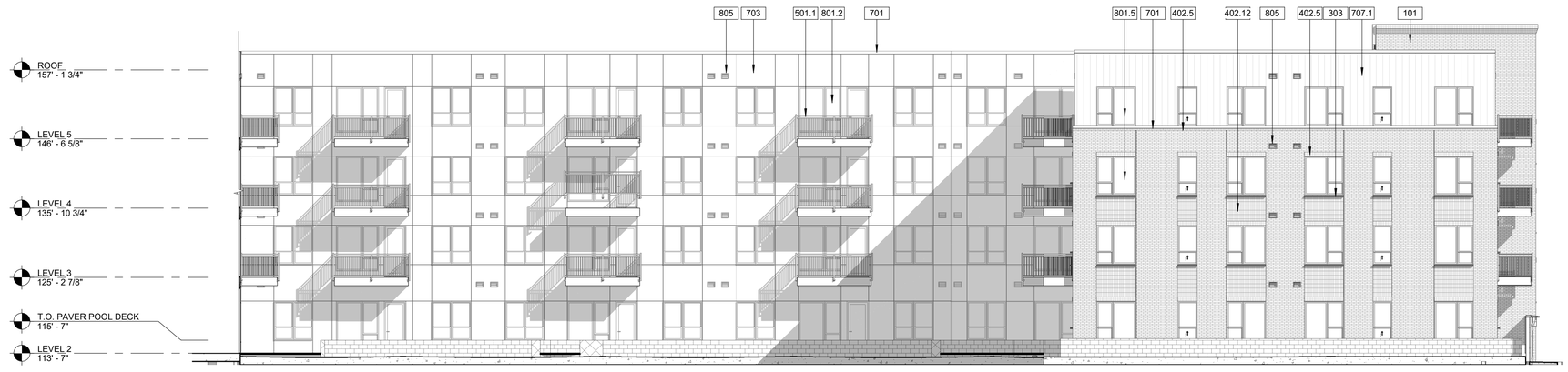
5 BALCONY GUARDRAIL 2
3/8" = 1'-0"



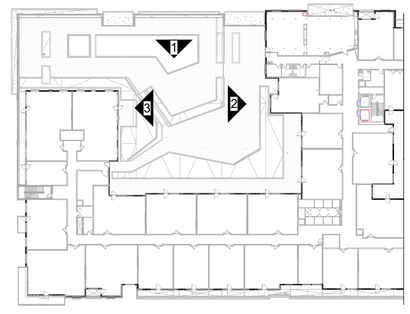
3 BUILDING 5 - POOL DECK SOUTH ELEVATION
1" = 10'-0"



2 BUILDING 5 - POOL DECK NORTH ELEVATION
1" = 10'-0"



1 BUILDING 5 - POOL DECK EAST ELEVATION
1" = 10'-0"



ELEVATION KEYPLAN
1" = 50'-0"

BUILDING 5 - EXTERIOR ELEVATIONS
SHEET 55 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN

THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

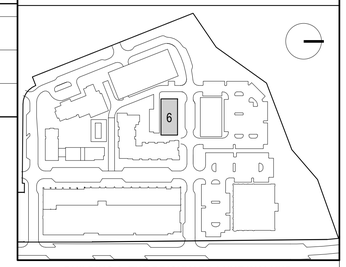
KEYNOTE LEGEND

KEY VALUE	KEYNOTE TEXT
103	BALCONY ASSEMBLY
311	CONCRETE STAIR, COLOR: GREY
401.3	ARCHITECTURAL BLOCK, COLOR: BEIGE
402.2	BRICK FINISH FACE, COLOR: BEIGE
508	METAL GUARDRAIL, COLOR: CHARCOAL GREY
520	METAL CANOPY, COLOR: CHARCOAL GREY
701	METAL COPING, COLOR: CHARCOAL GREY
710.3	FIBER CEMENT SIDING, COLOR: GREY
801	WINDOW, COLOR: CHARCOAL GREY
802	DOOR, COLOR: CHARCOAL GREY
803	STOREFRONT, COLOR: CHARCOAL GREY
804.1	OVERHEAD GARAGE DOOR, COLOR: CHARCOAL GREY

EXTERIOR MATERIAL LEGEND

MATERIAL	KEYNOTE TEXT
	BRICK FINISH FACE
	METAL PANEL SIDING
	ARCHITECTURAL BLOCK

KEY PLAN



BUILDING 6: THE BRICKYARD LUXE WALKUP

BUILDING HEIGHT	
HEIGHT ALLOWED: 65 FEET	
PROPOSED	
BUILDING SIDE	HEIGHT (FT)
SOUTH	39.25
WEST	39.64
NORTH	43.50
EAST	39.67
AVERAGE HEIGHT	40.52 FT

BRICKYARD FLATS BUILDING MATERIAL SAMPLES



BRICK FINISH FACE
COLOR: BEIGE



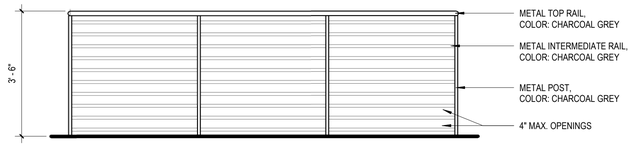
FIBER CEMENT SIDING
COLOR: CHARCOAL GREY



METAL FINISH
COLOR: CHARCOAL GREY



ARCHITECTURAL BLOCK
COLOR: BEIGE



5 GUARDRAIL ELEVATION
1/2" = 1'-0"



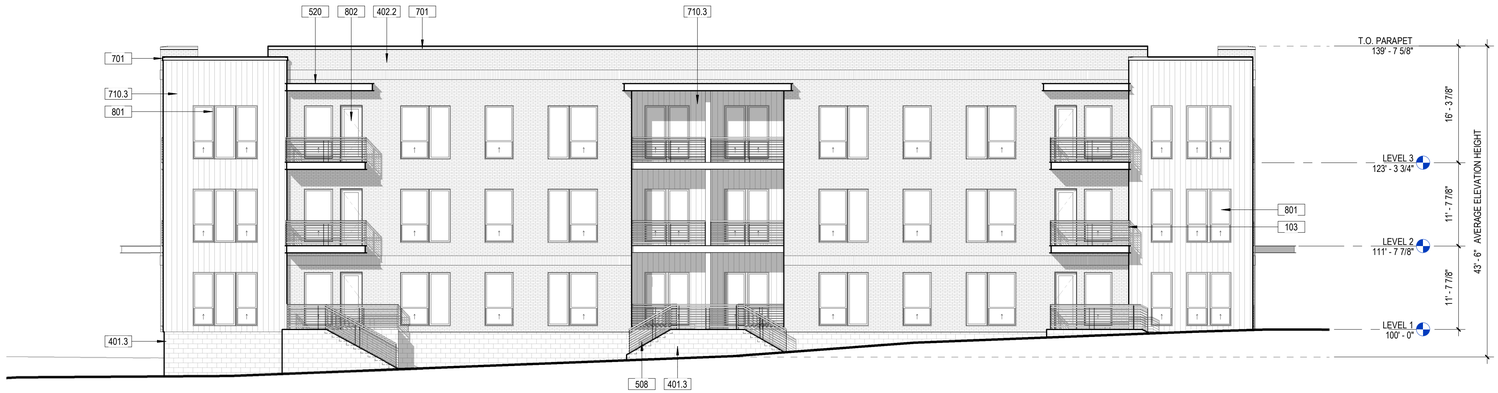
4 BUILDING 6 - WEST ELEVATION
1" = 10'-0"



3 BUILDING 6 - SOUTH ELEVATION
1" = 10'-0"



2 BUILDING 6 - EAST ELEVATION
1" = 10'-0"



1 BUILDING 6 - NORTH ELEVATION
1" = 10'-0"

BUILDING 6 - EXTERIOR ELEVATIONS
SHEET 56 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN

THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

KEYNOTE LEGEND

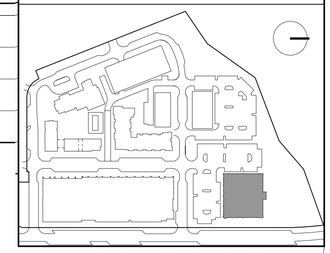
Key Value	Keynote Text
303	CONCRETE RETAINING WALL, COLOR: GREY
305	CONCRETE COPING, COLOR: GREY
402	BRICK FINISH FACE, COLOR: RED
507	STEEL COLUMN, COLOR: CHARCOAL GREY
508	METAL GUARDRAIL, COLOR: CHARCOAL GREY
520	METAL BALCONY, COLOR: CHARCOAL GREY
701	METAL COPING AT PARAPET, COLOR: CHARCOAL GREY
706	METAL ROOF, COLOR: CHARCOAL GREY
707	METAL WALL PANEL, COLOR: PRE-WEATHERED GALVALUME
801	WINDOW, COLOR: CHARCOAL GREY
802	DOOR, COLOR: CHARCOAL GREY
803	STOREFRONT, COLOR: CHARCOAL GREY
1014	FIBERGLASS MONUMENT: WHITE

EXTERIOR MATERIAL LEGEND

MATERIAL	KEYNOTE TEXT
	CONCRETE FINISH FACE
	BRICK FINISH FACE
	CORRUGATED METAL PANEL
	METAL ROOF

REFERENCE APPENDIX B FOR MATERIAL BOARD.

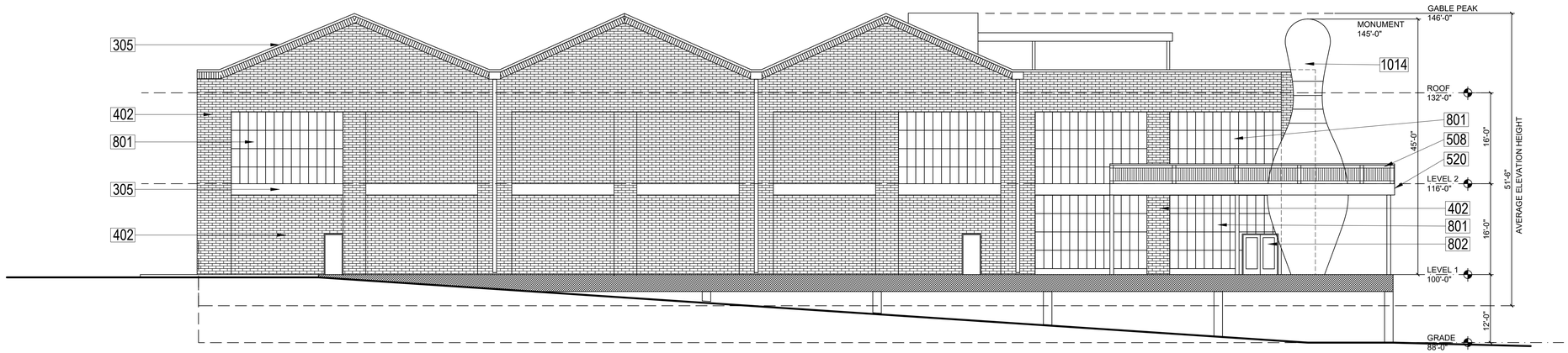
KEY PLAN



BUILDING #7: BOWL @ CASTLE ROCK

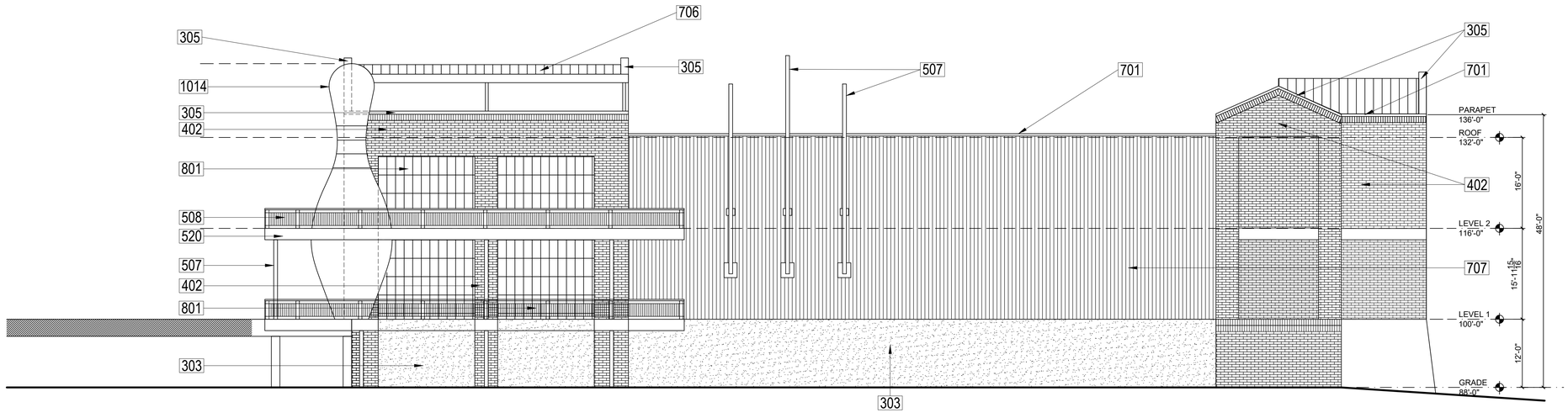
BUILDING HEIGHT

HEIGHT ALLOWED:	65 FEET
PROPOSED	
BUILDING SIDE	HEIGHT (FT)
SOUTH	51.5
WEST	45.0
NORTH	36.0
EAST	58.0
AVERAGE HEIGHT	47.63 FT



1 BUILDING 7 - SOUTH ELEVATION

1"=10'



2 BUILDING 7 - EAST ELEVATION

1"=10'



BRICK FINISH FACE
COLOR: RED



METAL PANEL SIDING
COLOR: PRE-WEATHERED GALVALUME



METAL PANEL ROOF
COLOR: PRE-WEATHERED GALVALUME



METAL FINISH
COLOR: CHARCOAL GREY



STOREFRONT
COLOR: CHARCOAL GREY



CONCRETE FINISH
COLOR: GREY

BUILDING 7 - EXTERIOR ELEVATIONS
SHEET 57 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN

THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

KEYNOTE LEGEND

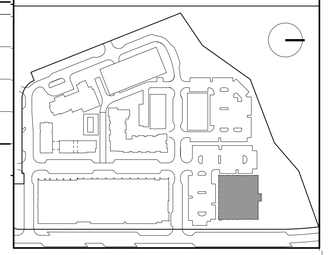
Key Value	Keynote Text
303	CONCRETE RETAINING WALL, COLOR: GREY
305	CONCRETE COPING, COLOR: GREY
402	BRICK FINISH FACE, COLOR: RED
507	STEEL COLUMN, COLOR: CHARCOAL GREY
508	METAL GUARDRAIL, COLOR: CHARCOAL GREY
520	METAL BALCONY, COLOR: CHARCOAL GREY
701	METAL COPING AT PARAPET, COLOR: CHARCOAL GREY
706	METAL ROOF, COLOR: CHARCOAL GREY
707	METAL WALL PANEL, COLOR: PRE-WEATHERED GALVALUME
801	WINDOW, COLOR: CHARCOAL GREY
802	DOOR, COLOR: CHARCOAL GREY
803	STOREFRONT, COLOR: CHARCOAL GREY
1014	FIBERGLASS MONUMENT: WHITE

EXTERIOR MATERIAL LEGEND

MATERIAL	KEYNOTE TEXT
	CONCRETE FINISH FACE
	BRICK FINISH FACE
	CORRUGATED METAL PANEL
	METAL ROOF

REFERENCE APPENDIX B FOR MATERIAL BOARD.

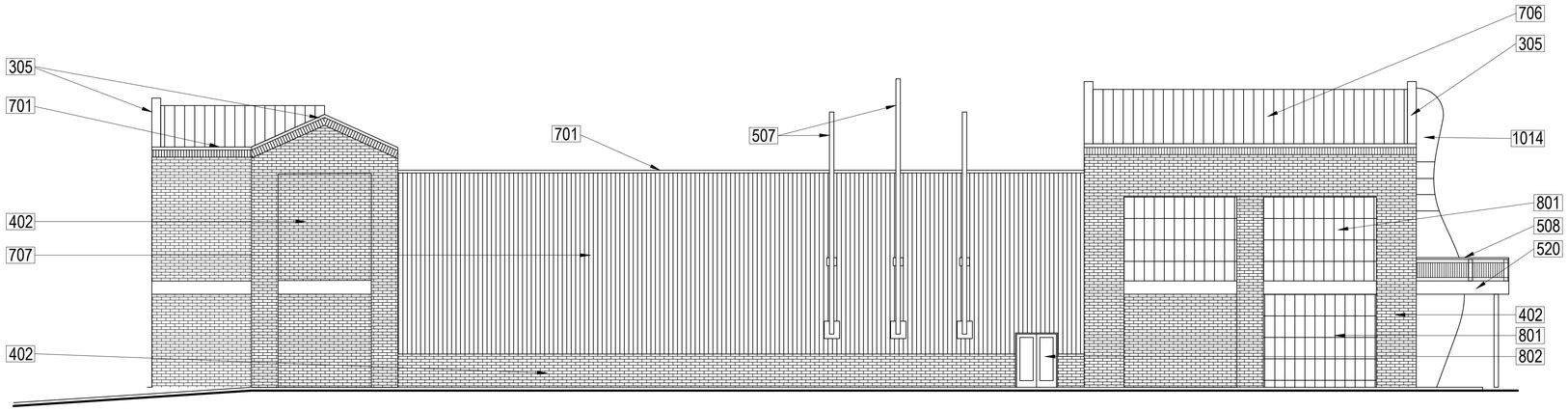
KEY PLAN



BUILDING #7: BOWL @ CASTLE ROCK

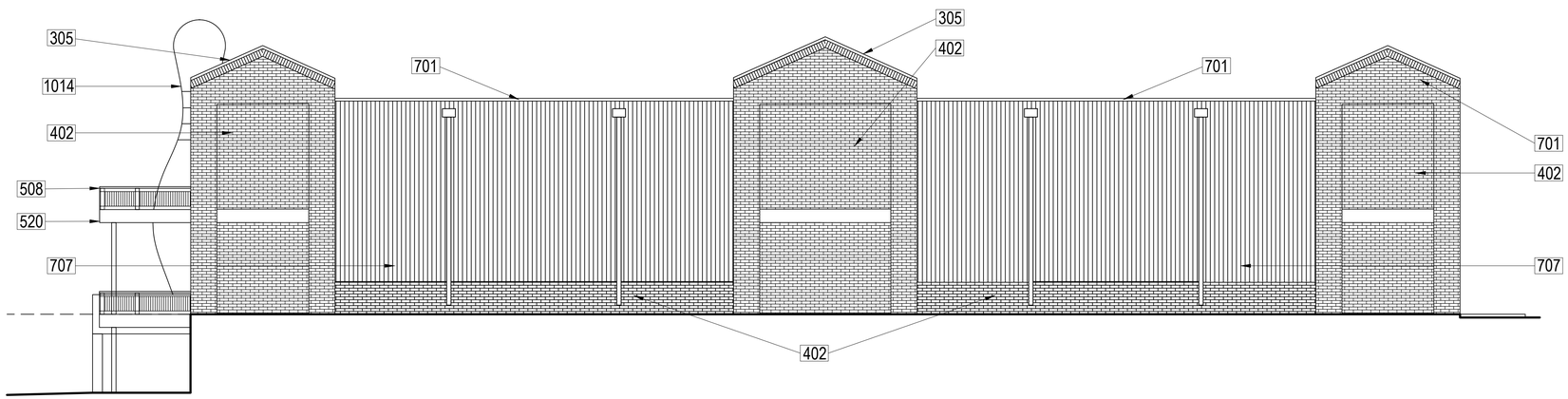
BUILDING HEIGHT

HEIGHT ALLOWED:	65 FEET
PROPOSED	
BUILDING SIDE	HEIGHT (FT)
SOUTH	51.5
WEST	45.0
NORTH	36.0
EAST	58.0
AVERAGE HEIGHT	47.63 FT



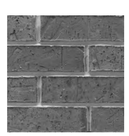
1 BUILDING 7 - WEST ELEVATION

1" = 10'

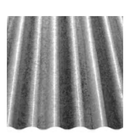


2 BUILDING 7 - NORTH ELEVATION

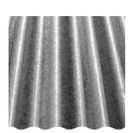
1" = 10'



BRICK FINISH FACE
COLOR: RED



METAL PANEL SIDING
COLOR: PRE-WEATHERED GALVALUME



METAL PANEL ROOF
COLOR: PRE-WEATHERED GALVALUME



METAL FINISH
COLOR: CHARCOAL GREY



STOREFRONT
COLOR: CHARCOAL GREY



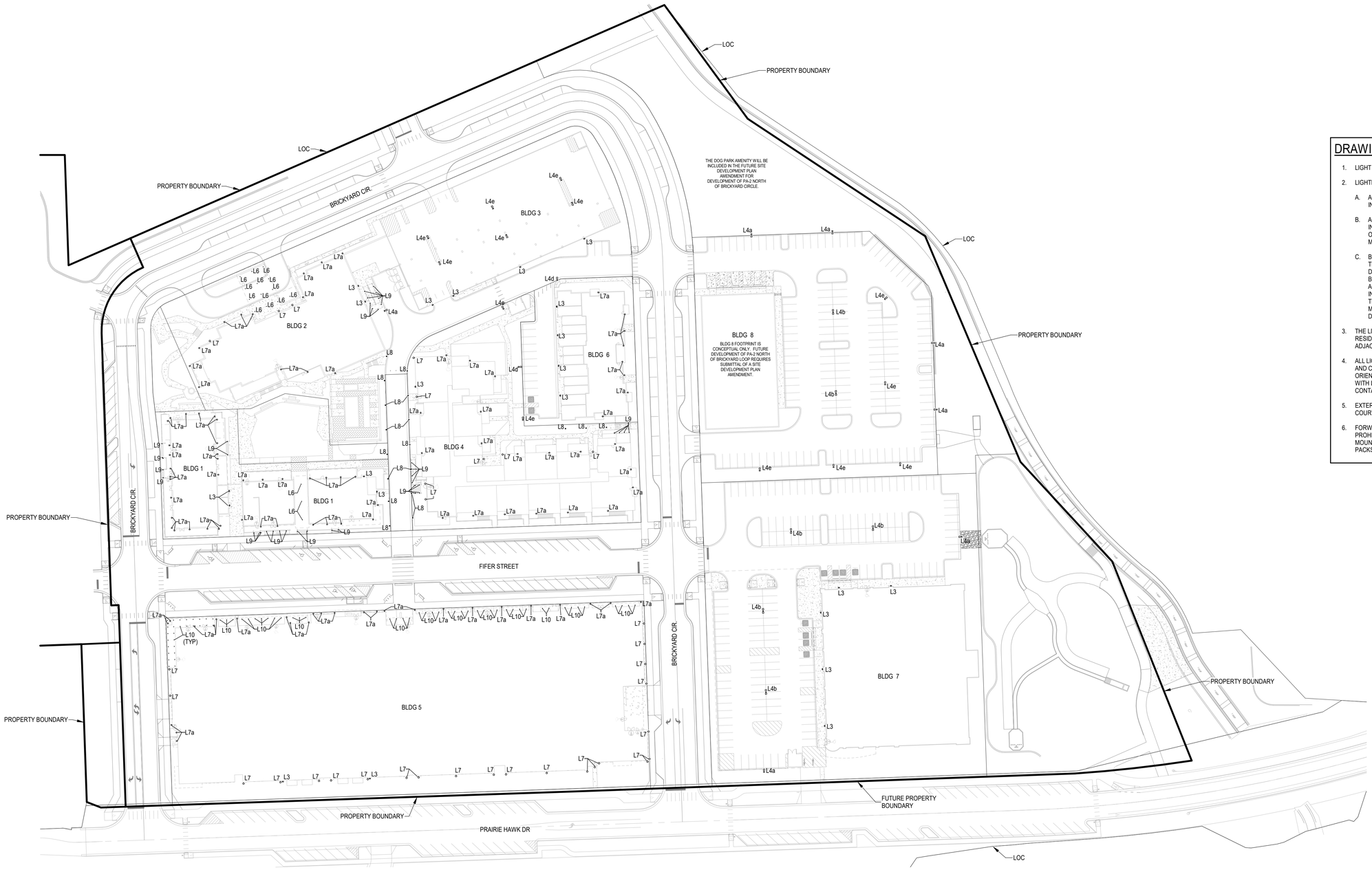
CONCRETE FINISH
COLOR: GREY

BUILDING 7 - EXTERIOR ELEVATIONS
SHEET 58 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN

THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO



DRAWING NOTES:

1. LIGHT LOSS FACTOR FOR ALL LUMINAIRES IS 1.
2. LIGHTING CONTROL NOTES:
   - A. ALL PRIVATE STREET LIGHT FIXTURES SHALL BE CONTROLLED FROM INTEGRAL PHOTOCELL AND SHALL OPERATE FROM DUSK UNTIL DAWN.
   - B. ALL PARKING LOT POLE LIGHT FIXTURES SHALL BE CONTROLLED FROM INTEGRAL PHOTOCELL AND OCCUPANCY SENSOR. FIXTURES SHALL REMAIN ON FROM DUSK UNTIL DAWN AND SHALL DIM TO 30% BRIGHTNESS AFTER 20 MINUTES OF NO ACTIVITY BEING DETECTED.
   - C. BUILDING MOUNTED AREA LIGHTS SHALL BE CONTROLLED FROM BUILDING TIMECLOCK AND PHOTOCELL. THEY SHALL BE TURNED ON BY PHOTOCELL AT DUSK AND SHALL BE TURNED OFF BY TIMECLOCK. FOR COMMERCIAL BUILDINGS, THE TIMECLOCK SHALL TURN FIXTURES OFF WITHIN 60 MINUTES AFTER CLOSE OF BUSINESSM, EXCEPT FOR SECURITY LIGHTS AND LIGHTING INTENDED FOR 24 HOUR OPERATION. FOR RESIDENTIAL BUILDINGS, THE TIMECLOCK SHALL DIM FIXTURES TO 50% FULL BRIGHTNESS AFTER MIDNIGHT, AND TURN FIXTURES OFF AT DUSK. ALL SETPOINTS SHALL BE DETERMINED BY OWNER.
3. THE LIGHTING OBJECTIVE FOR THE SITE IS TO PROVIDE ADEQUATE LIGHTING FOR RESIDENTS' SECURITY WHILE LIMITING THE IMPACT OF ON SITE LIGHTING ON ADJACENT SPACES AND PROTECTING NIGHT SKY VISIBILITY.
4. ALL LIGHT FIXTURES ILLUMINATING PRIVATE DRIVES, PARKING LOTS, WALKWAYS, AND COMMON AREAS SHALL BE FULL CUTOFF, DOWNCAST, AND SHALL BE ORIENTED TO LIMIT LIGHT TRESSPASS TO ADJACENT PROPERTIES. FIXTURES WITH LESS THAN 3500 LUMEN OUTPUT MAY PROVIDE UPLIGHTING AS LONG AS IT IS CONTAINED ON BUILDING FACADES.
5. EXTERIOR LIGHTING FOR EGRESS TRAVEL (TO THE PUBLIC WAY OR EGRESS COURT) SHALL COMPLY WITH THE MUNICIPAL CODE.
6. FORWARD THROW LUMINAIRES: THE FOLLOWING LIGHTING TYPES ARE PROHIBITED: FORWARD THROW LIMINAIRES (TYPE IV DISTRIBUTION), POLE MOUNTED LIGHTS AIMED AT A BUILDING'S FACADES, AND UNSHIELDED WALL PACKS ARE PROHIBITED.

NORTH

1 OVERALL SITE LIGHTING PLAN

1" = 60'-0"

GIVEN & ASSOCIATES INC
MECHANICAL & ELECTRICAL ENGINEERS
735 S. Xenon Ct. #201
Lakewood, Colorado 80228
Ph: 303.716.1270
Fax: 303.716.1272
www.givenandassociates.com
Given Project # 23069

OVERALL SITE LIGHTING PLAN
SHEET 59 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN

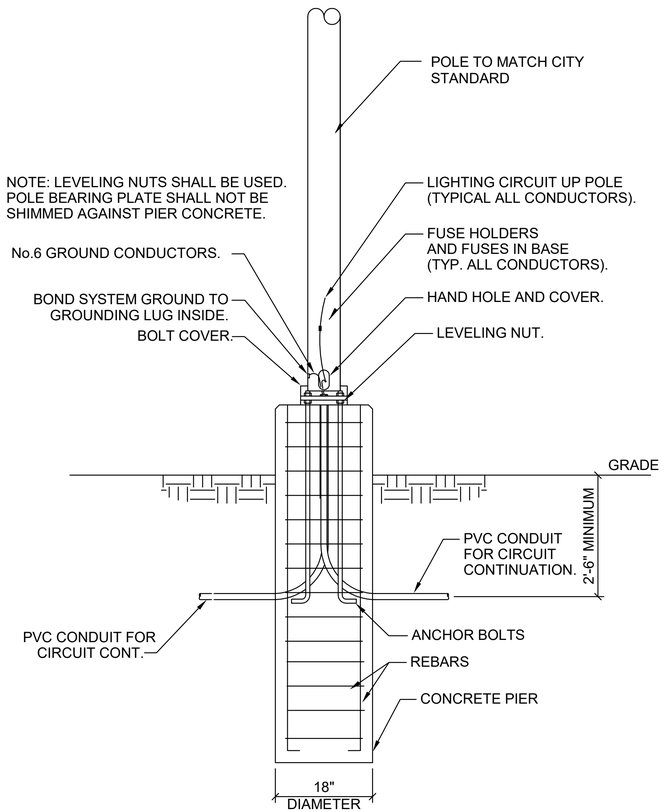
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

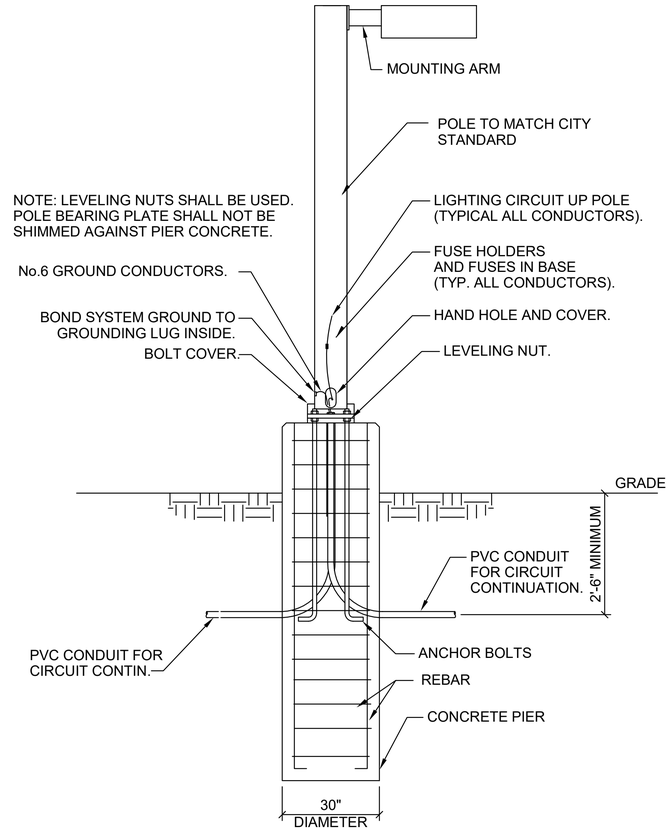
Site Luminaire Summary Table

Luminaire											Lamps						
ID/ Symbol	Manufacturer	Model	Catolog Number	Description	Full Cut Off (Y/N)	Distribution	Voltage	Dimming	Quantity	Mounting	Mounting Height	Quantity	Type	Watts	Lumens	Color Temp/CRI	Light loss factor	Fixture Finish
L3	NLS	TRAC LINEAR	TWL-T3-16L-175-30K7-UNV-WM	WALL MOUNTED AREA LIGHT	Y	TYPE 3	120	0-10V	33	WALL (BLDG)	10' AFG	1	LED	10	1213	3000K/80CRI	1	GREY
L4a	LIGMAN	HAMILTON 1 POST TOP	UHAM-20002-75W-T3-W30-**-208-DIM	POST TOP AREA LIGHT	Y	TYPE 3	208	0-10V	6	POLE	25' AFG	1	LED	75	8949	3000K/CRI>80	1	GREY
L4b	LIGMAN	HAMILTON 2 POST TOP	UHAM-20012-2X75W-T3-W30-**-208-DIM	POST TOP AREA LIGHT	Y	TYPE 3	208	0-10V	6	POLE	25' AFG	2	LED	75	8949	3000K/CRI>80	1	GREY
L4d	LIGMAN	HAMILTON 1 POST TOP	UHAM-20002-75W-T2-W30-**-208-DIM	POST TOP AREA LIGHT	Y	TYPE 2	208	0-10V	3	POLE	25' AFG	1	LED	75	8949	3000K/CRI>80	1	GREY
L4e	LIGMAN	HAMILTON 1 POST TOP	UHAM-20002-75W-EW-W30-**-208-DIM	POST TOP AREA LIGHT	Y	TYPE 5	208	0-10V	13	POLE	25' AFG	1	LED	75	8949	3000K/CRI>80	1	GREY
L6	USAI	BEVELED MINI	B3RA-F-20X3-30KS-4S-S-**-**-NC1-**-UNV-D6E	RECESSED DOWNLIGHT	Y	45 DEG	120	0-10V	13	CEILING, RECESSED	16' AFF	1	LED	20	2725	3000K/CRI>80	1	GREY
L7	BARN LIGHT	UNION WALL SCONCE	BLE-W-WHU14-***-***-NA-NA-LED16-3000K-FL	14" SHADED WALL SCONCE	Y	LAMBERTIAN	120	0-10V	16	WALL (BLDG)	10' AFG	1	LED	16	1235	3000K/CRI>90	1	GREY
L7a	VISUAL COMFORT	ASH 8 OUTDOOR WALL	700OWASHL9308CHUNV	8" SHADED WALL SCONCE	Y	LAMBERTIAN	120	0-10V	107	WALL (BLDG)	7' AFG	1	LED	8	613	3000K/90CRI	1	GREY
L8	HYDREL	WANDER	WANDER3 PM1 H38 P1 90CRI 27K MVOLT MW ZT	PATHWAY BOLLARD LIGHT	Y	MEDIUM WIDE	120	0-10V	17	GROUND	38" AFG	1	LED	12.7	1150	2700K/90CRI	1	GREY
L9	TARGETTI	ZEDGE MINI	ZESRPFWFEL32724-DMLE601242UD	MINIAURE STEP LIGHT	Y	FLOOR WASH	120	0-10V	31	WALL, RECESSED	18" AFF	1	LED	4	68	2700K/90CRI	1	GREY
L10	COOPER	HALO	SMD6R07FS5	6" ROUND SURFACE DOWNLIGHT	Y	LAMBERTIAN	120	ELV	71	CEILING, SURFACE	13' AFF	1	LED	8	800	3000K/CRI>90	1	GREY

Calculation Summary		List the Use Area / Zone Type				
Label	Calc Type	Units	Average	Min	Max	AVG Min Max
COMMERCIAL PARKING LOTS	DIRECTIONAL ILLUMININANCE	FOOT CANDLES	1.5	0.3	7.2	5.0/1 ; 24/1
PARKING GARAGE	DIRECTIONAL ILLUMININANCE	FOOT CANDLES	1.6	0.1	4.8	16/1 ; 48/1
OVERALL	DIRECTIONAL ILLUMININANCE	FOOT CANDLES	0.8	9	0	NA



2 LIGHT POLE DETAIL - PEDESTRIAN
NO SCALE



1 LIGHT POLE DETAIL - PARKING
NO SCALE

GIVEN & ASSOCIATES INC
MECHANICAL & ELECTRICAL ENGINEERS
735 S. Xenon Ct. #201
Lakewood, Colorado 80228
Ph: 303.716.1270
Fax: 303.716.1272
www.givenandassociates.com
Given Project # 23069

SITE LIGHTING DETAILS
SHEET 60 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

TYPE L3

NLS LIGHTING

TRAC LINEAR WALL MOUNT

TWL



LED WATTAGE CHART	
DRIVE CURRENT	16L
175 milliamps	10w (1206-1270 Lumens)
400 milliamps	21w (2479-2911 Lumens)
530 milliamps	28w (3308-3776 Lumens)
700 milliamps	36w (4385-4720 Lumens)
1050 milliamps	56w (6022-6482 Lumens)

FORM
- Elegant Rectilinear Extruded Aluminum Housing
- Corrosion Resistant Stainless Steel External Hardware
- Sleek, Low Profile Housing
- Spec Grade Performance
- Engineered For Optimum Thermal Management
- 8 Architectural Finishes Standard, RAL Colors Available

FUNCTION
- Micro Optics IES Distributions T2, T3, T4
- 0-10V Dimming Drivers THD @ Max Load < 15% Power factor @ Max Load < 0.95
- Amber, 2700K, 3000K, 3500K, 4000K, or 5000K
- 16L LED Configuration
- 10-56 Watts
- CRI 70, 80, or 90
- Extruded Aluminum Heat Sink
- 5 Mils Powder Coat

RELIABILITY
- Silicone Micro Optics
- 5 Year Standard Warranty
- IP67 Optics
- Reduces Energy Consumption And Costs Up To 65%

TWL ORDERING GUIDE

Cat#	Light Dist.	# of LEDs	Milliamps	Kelvin
Trac Linear Wall Mount (TWL)	Type 2 (T2) / Type 3 (T3) / Type 4 (T4)	16L (16L)	175 (175) / 400 (40) / 530 (53) / 700 (7) / 1050 (1)	Amber SRS-BWM (AMBER) 1 & 2 / 2700K, 70 CRI (27K7) / 2700K, 80 CRI (27K8) / 3000K, 70 CRI (30K7) / 3000K, 80 CRI (30K8) / 3500K, 80 CRI (35K8) / 4000K, 70 CRI (40K7) / 4000K, 80 CRI (40K8) / 5000K, 70 CRI (50K7) / 5000K, 80 CRI (50K8) 1

Volts	Mounting	Color	Controls Options	Options
120/277 (120V) 3 / 347-480 (HV)	Wall Mount (WMT)	Bronze Textured (BRZ) / White Textured (WHT) / Smooth White Gloss (SWT) / Silver Metallic (SVR) / Black Textured (BLK) / Smooth Black Gloss (SBK) / Graphite Textured (GPH) / Grey Textured (GRY) / Green Textured (GRN) / Hunter Green Textured (HGN) / Custom (CS)	FSP-211 with Motion Sensor/Photocell [UNV Voltage] *6' and Below (FSP-B)* 10 / 7'-20' Heights (FSP211-20) 8, 10 / 21'-40' Heights (FSP211-40) 8, 10 / FSP-221 with Motion Sensor/Photocell 9'-20' Heights (FSP221-20) 11 / 21'-40' Heights (FSP221-40) 11 / FSP Remote (FSRP) / Button Photo Cell (PC) / Custom Controls Integration (CCI) 9	Marine Grade Finish (MGF) / Emergency Battery BW (EMB) / Vanity Plate (VP) / 20KA Surge Protector (20KA) / Buy American Act (BAA) 4 / Trade Agreement Act (TAA) 4 / Build America Buy American (BABA) 5

TWL LUMEN CHART

TRAC LUMEN CHART									
PART NUMBER	T2	LM/W	BUG	T3	LM/W	BUG	T4	LM/W	BUG	WATTS
TWL-16L-175-30K7	1,206	121	B0-U0-G0	1,213	121	B0-U0-G0	1,213	121	B0-U0-G1	10
TWL-16L-175-40K7	1,266	127	B0-U0-G0	1,273	127	B0-U0-G0	1,273	127	B0-U0-G1	10
TWL-16L-175-50K7	1,266	127	B0-U0-G0	1,273	127	B0-U0-G0	1,273	127	B0-U0-G1	10

TYPE L4a, L4b, L4d, L4e

UHAM-20002
Hamilton 1 Post Top

microVos TECHNOLOGY

LiGMAN LIGHTING USA



75w LED
8949 Lumens

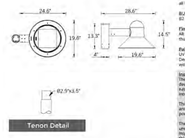
IP66
Suitable for wet locations.

IK07
Impact Resistant (Vandal-Resistant)

EPA - 1.78

Weight - 35 lbs

POLE NOT INCLUDED



Tenon Detail

Construction

Aluminum
All LIGMAN has copper content – Marine Grade 6060 extruded & LMC Aluminum High Pressure die casting provides excellent mechanical strength , clean detailed product lines and excellent heat dissipation.

Fire paint
6 step degrease and phosphate process that includes: deoxidizing and etching as well as a zinc and nickel phosphate process before product painting.

Memory Retentive ,Silicon Gasket
Memory retentive silicone rubber gasket "fit for purpose" long life high temperature vulcanized rubber silicon gaskets, Maintains the gaskets exact profile and seal over years of use and compression.

Thermal management
LMC Aluminum is used for its excellent mechanical strength and thermal dissipation properties in low and high ambient temperatures. Thermal pads are used to ensure the heat in Ligman used in conjunction with the driver, controls thermals below critical temperature range to ensure maximum luminous flux output, as well as providing long LED service life and ensuring less than 70% lumen depreciation at 50,000 hours.

Surge Suppression
All LIGMAN products comes wired 10kv surge suppressor provided with all fixtures.

IK/IG Rating
IK7 -10 -50

Finishing
All Ligman products go through an extensive finishing process that includes: Etching 50 improve paint adherence.

Paint
Electrostatic 4.5Mil thick powder coat paint and baked at 200 Deg C. This process ensures that Ligman products can withstand harsh environments. Rated for use in tutatorrium.

Inspired by Nature Finishes
The inspired by nature finishing is a unique system of hydrographic printing that uses our metal decoration process to easily transform the aesthetic look of metal or aluminum product into a wood-grain finish.

This patented technology enables the simulation of wood grain, exotic patterns, camouflage or granite finish through the use of precise powder coating.

The wood grain finish is so realistic that it's almost undistinguishable from real wood, even from a close visual inspection. The system of coating permeates the wood grain finish into the surface of the metal and cannot be removed by normal rubbing, chipping, or scratching.

The Coating Process
After pre-treatment the prepared parts are powder coated with a specially formulated polyurethane powder. This powder coating process is then followed by the application of the corrosion-proof acrylic clear finish coat for the finished metal decoration.

The completed is then equipped with a shield of transparent film, with the selected decoration pattern printed on it using special high-temperature inks.

This printed film transfer is vacuum-sealed to the surface for a complete electric print and then transformed into a customized item. The term transforms the ink into different forms within the film, creating the final pattern. Finally, the surface film is removed, and a vivid timber look on aluminum remains.

Wood grain coating can create beautiful wood-looking products of any sort. There are over 300 combinations of designs currently in use. Wood grains can be made with different colors, designs, etc.

Our powder coatings are certified for indoor and outdoor applications. Our Wood Grain Finish Decoration warranty. These coatings can be the highest coatings/color standard, of performance excellence and design innovation.

Added Benefits:
- Resistance to salt-acid mists, weatherproof aging
- Boiling water, Time and Condensed water resistant
- Anti-Graffiti, Anti-Slip, Anti-Microbial, Anti-Scratch
- Chemical Resistant (Optional)
- TUBE Fine (Non-stain)

Hardware
Provided Hardware is Marine grade 316 Stainless steel.

Anti-Seize Screw holes
Tapped holes are infused with a special anti-seize compound designed to prevent seizure of threaded connections, due to electrolysis from heat, corrosive atmospheres and moisture.

Crystal Clear Low Iron Glass Lens
Provided with tempered, impact resistant crystal clear low iron glass, assuring no green glass tinge. Lightly frosted lens optional.

Optics & LED
Precise optic design provides exceptional light control and precise distribution of light.
LED CRI > 80

Classic urban neighbourhood post-top luminaire family. Timeless lines coupled with unparalleled build quality, flexibility and performance.

A post top luminaire available with single or twin heads, in a straight arm or shepherds crook style. Designed for lighting car parks, footpaths, pedestrian areas, precincts, parks, gardens and building perimeters.

Color temperature 2700K, 3000K, 3500K and 4000K, LED CRI >80.

This luminaire is provided prewired with power cord to the handhole to simplify installation. Marine grade 316 stainless steel fasteners. Durable memory retentive silicone rubber gasket and lens.

To meet International Dark Sky criteria, 3000k or warmer LEDs must be selected.

Additional Options (Consult Factory For Pricing)



A90691 Zhaga Book 18 / A90691 NEMA7 / BMG Decorative Bllrgs



IHSS-External Louver Side Shield



LIGHCONNECT IoT Ready Hamilton

This luminaire is available with NEMA 7 or Zhaga Book 18 sockets for connection to intelligent lighting control systems.

microVos TECHNOLOGY

Ligman's micro Variable Optical System provides the ability to interchange, mix & rotate optics to provide specific light distributions for optimized spacing and uniformity.



The variable optic system allows for the designer to create hybrid distributions for precise lighting requirements.



HYBRID
TYPE I & TYPE IV

UHAM-20012
Hamilton 2 Post Top

2x75w LED
2x8949 Lumens

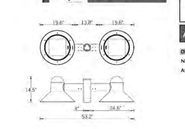
IP66
Suitable for wet locations.

IK07
Impact Resistant (Vandal-Resistant)

EPA - 2.81

Weight - 65.5 lbs

POLE NOT INCLUDED



Tenon Detail

ORDERING EXAMPLE || UHAM - 20012 - 2x75w - T2- W30 - 02 - 120/277v - Options

UHAM-20012	LAMP	BEAM	LED COLOR	FINISH COLOR	VOLTAGE
	2x75w LED 2x8949 Lumens	T1 - Type I Distribution T2 - Type II Distribution T3 - Type III Distribution T4 - Type IV Distribution ME - Type ME Distribution M - Medium 30° W - Wide 55° EW - Extra Wide 110°	W27 - 2700K W30 - 3000K W35 - 3500K W40 - 4000K	01 - BLACK RAL 9011 02 - DARK GREY RAL 7043 03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006 05 - MATTE SILVER RAL 9006 06 - LIGMAN BRONZE 07 - CUSTOM RAL	120/277v Other - Specify

ADDITIONAL OPTIONS

DIM - 0-10v Dimming
NAT - Natatorium Rated
A90691 - Zhaga Book 18
A90691 - NEMA 7
F - Frosted Lens
RNC - Decorative Rings

INSPIRED BY NATURE FINISHES
SW01 - OAK FINISH
SW02 - WALNUT FINISH
SW03- PINE FINISH
DF - DOUGLAS FIR FINISH
CW - CHERRY WOOD FINISH
NW - NATIONAL WALNUT FINISH
SU01 - CONCRETE FINISH
SU02 - SOFTSCAPE FINISH
SU03 - STONE FINISH
SU04 - CORTEN FINISH
THERE IS AN ADDITIONAL COST FOR THESE FINISHES

ORDERING EXAMPLE || UHAM - 20002 - 75w - T2- W30 - 02 - 120/277v - Options

UHAM-20002	LAMP	BEAM	LED COLOR	FINISH COLOR	VOLTAGE
	The LED 8949 Lumens	T1 - Type I Distribution T2 - Type II Distribution T3 - Type III Distribution T4- Type IV Distribution ME - Type ME Distribution M - Medium 30° W - Wide 55° EW - Extra Wide 110°	W27 - 2700K W30 - 3000K W35 - 3500K W40 - 4000K	01 - BLACK RAL 9011 02 - DARK GREY RAL 7043 03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006 05 - MATTE SILVER RAL 9006 06 - LIGMAN BRONZE 07 - CUSTOM RAL	120/277v Other - Specify

L4d
L4a
L4e

ADDITIONAL OPTIONS

DIM - 0-10v Dimming
NAT - Natatorium Rated
A90691 - Zhaga Book 18
A90691 - NEMA 7
F - Frosted Lens
RNC - Decorative Rings

INSPIRED BY NATURE FINISHES
SW01 - OAK FINISH
SW02 - WALNUT FINISH
SW03- PINE FINISH
DF - DOUGLAS FIR FINISH
CW - CHERRY WOOD FINISH
NW - NATIONAL WALNUT FINISH
SU01 - CONCRETE FINISH
SU02 - SOFTSCAPE FINISH
SU03 - STONE FINISH
SU04 - CORTEN FINISH
THERE IS AN ADDITIONAL COST FOR THESE FINISHES

TYPE L6

BeveLED Mini® Complete - B3RA
3" Round Adjustable

USAI Lighting

Universal and Field Convertible - Trim | Trimless | Millwork

Trimmed - B3RAF



Trimless - B3RAL



Millwork - B3RAM



usailighting.com/beveledmini

Introducing new and improved BeveLED Mini, the smallest member of our iconic BeveLED family. BeveLED Mini has been infused with upgraded performance for superior light in every application. Now available with the following features, by popular demand:

FEATURES
- Upgraded performance and more LED color options than ever before!
- Collar extenders offered standard to accept up to 2"thick ceilings
- Field Flexibility - it's now easy to change trim in the field between trimmed, trimless and millwork
- Dry/damp/wet location rated for bathrooms and showers, including trimless and millwork
- More dimming options and all color technologies available
- Clear overspray protector for installation convenience
- Full family platform
- Iconic beveled look
- Doubler kit for repeatable two head fixture configuration installations
- Title 24 JA8 Qualified 5K0.b

ADJUSTABLE PERFORMANCE DATA*
See page S-6 for our extensive range of performance values

LED COLOR CHOICES
Classic White | Warm Glow Dimming | Color Select

BeveLED Mini® Complete - B3RA
3" Round Adjustable with Integral Driver

USAI Lighting

Specify fixture part number. (All boxes must be filled in to correctly order).

B3RA	BeveLED Trim Style	Trim Choice	Wattage Options	LED Color Options	Beam Options	Lens Options	Bevel Trim Finish Options	*Flange/ Millwork Collar Finish	Natatorium Corrosion Protection (optional)	Housing Options	Extended Collar for Thick Ceilings	Voltage Options	Dimming Driver Options	Emergency Battery (Optional)*
	F - Trimmed with Flange (use with all materials) / L - Trimless Spackle-in (use with sheetrock and plaster only) (1) / M - Millwork Knife-Edge (use with wood and stones) (2)	25 - Horizontal trim lens, can be used for all tilt angles from 0°-40° (provided standard) / 40 - Optional cut-cone trim with canted lens, can be used for tilting angles from 20°-40°	Classic White Light: 11M3D 1119 LED / 14M3D 1490 LED / 17M3D 1790 LED / 09K3 990 LED / 15K3 1504 LED / 20K3 2007 LED	24KH 24KBR, 90+ CRI (1, 11) / 27K5 2700K, 80+ CRI (1) / 27KH 2700K, 90+ CRI (1) / 27R2 2700K, 95+ CRI (1) / 30K5 3000K, 80+ CRI (1) / 30KH 3000K, 90+ CRI (1) / 30R2 3000K, 95+ CRI (1) / 35K5 3500K, 80+ CRI (1) / 35KH 3500K, 90+ CRI (1)	T06 - 6° beam (2) / T10 - 10° beam (2) / 25 - 25° beam (1) / 30 - 30° beam (1) / 36 - 35° beam (1) / 40 - 40° beam (1) / 55 - 55° beam (1)	BC - Borosilicate Clear Glass (required to achieve 9 and 10 degree beams) (2, 4*, 8) / SP - Satin Standard for all bed 6 & 10 deg beams) / SP - Satin Textured / SP - Satin Polycarbonate / BF - Borosilicate Frosted / AS61 - Linear - spread CTS25	BBH - White / SC - Conduit Silver / GR - Grey / BL - Black / BZ - Bronze / PB (7) - Primer Finish / QW (7) - Antimicrobial Paint, White / AC (7) - Clear Matte - Anodized / AB (7) - Piano Gloss Black	NT - Natatorium: triple-coat Corrosion resistant, metallic finish, rated to 9,000 hours** / **Flange trims and painted finishes only) / * Leave blank for non Natatorium trims / WH - White / BL - Black / SC - Conduit Silver / BZ - Bronze / WH - White / BL - Black / SC - Conduit Silver / BZ - Bronze / WH - White / GR	FTA2 - Flat Adjustable Housing 2" / FTA3CP - Flat Adjustable Housing Chicago Plenum / FTA3C - Flat Adjustable Housing Insulation Contact Rated / Airtight (17W maximum) / NC1 - New Construction All-in-One / NC1CP - Chicago Plenum / NC1IC - Insulation Contact	Blank - for standard collar accepts up to 2" thick ceilings / 1 - Extended collar accepts up to 3.5" thick ceilings maximum	UNV - 120V-277V	For one with Universal Voltage 120V -277V / No Additional Charge / D4E - Eldoled D-10V, 1% / D4F - Eldoled D-10V, 1% / D4H - Lutron H-ECO, 1% Fade (1, 3, 4) / D4C - Lutron Ecosystem, 1% (1, 2) / D4A - Eldoled D-10V, 0.1% / D4B - Eldoled D-10V, 0.1% / D7A - Eldoled DALI2, 0.1% (4) / D7B - Eldoled DALI2, 0.1% (4) / D7E - Eldoled DALI2, 1%-(4) / D7F -	EM7 - Emergency Battery (9) / EM7W - Emergency Battery Wet Location (9) / EM7C - Title 20 Compliant Emergency Battery (9) / EM7CW - Title 20 Compliant Emergency Battery Wet Location (9) / EM5H - Emergency Battery Shunt (3, 4, 10) / *Optional Mounting

TYPE L7

SPS-2074 REV A

UNION LED WALL SCONCE

JOB NAME: _____ FIXTURE TYPE: _____



BLE - W - _ - _ - _ - _ - _ - _ - _ - _
A B C D E F G H

Order Example: BLE - W - WHU14 - 400 - NA - NA – LED16 – 2700K - DL - NA

A - SHADE SIZE

UNION:
- WHU12 12" Shade
- WHU14 14" Shade
- WHU16 16" Shade

B - SHADE FINISH

PORCELAIN FINISHES[1]:
- 150 Black
- 250 White
- 350 Vintage Green
- 355 Jadite
- 455 Cherry Red
- 550 Yellow
- 650 Bronze
- 750 Cobalt Blue
- 765 Delphite Blue
- 850 Graphite
- 950 Metallic Chrome

POWDER COAT FINISHES[1]:
- 100 Black
- 105 Textured Black
- 106 Matte Black
- 200 White
- 206 Matte White
- 300 Dark Green
- 307 Emerald Green
- 311 Jadite
- 370 Mint
- 380 Chartreuse

B - SHADE FINISH (CONTINUED)

POWDER COAT FINISHES[1]:
- 390 Teal
- 400 Barn Red
- 420 Orange
- 470 Watermelon
- 480 Blush Pink
- 490 Magenta
- 495 Sherbet Orange
- 500 Buttery Yellow
- 570 Sunflower
- 600 Bronze
- 601 Chocolate
- 605 Rust
- 615 Oil-Rubbed Bronze
- 700 Royal Blue
- 705 Navy
- 710 Cobalt Blue
- 715 Delphite Blue
- 790 Lavender
- 800 Industrial Grey
- 805 Charcoal Granite
- 810 Graphite
- 975 Galvanized

C - SHADE ACCESSORIES
- NA None
- WC Wire Cage
- ACR Acrylic Diffuser[4,6,5]

D - SHADE ACCESSORY FINISH

Please Note: See **Section B** *for all optional accessory finish options.*
(1) If a porcelain finish is selected, accessory will be powder coat painted to-match.
(2) If no accessory is selected in Section C, please select NA.
- NA Not Applicable

E - LIGHT SOURCE
- LED11 850 Lumen, 11W LED
- LED16 1250 Lumen, 16W LED
- LED27 2600 Lumen, 27W LED

F - COLOR TEMPERATURE
- 2700K 2700K, Warm White
- 3000K 3000K, Neutral White
- 3500K 3500K, Bright White
- 4000K 4000K, Cool White

G - LED LENS
- DL Domed Lens
- FL Flat Lens

H - DUSK-TO-DAWN PHOTOCELL
- NA None/Not Applicable
- DD Dusk-to-Dawn Photocell

FOOTNOTES: *(1) All Porcelain Enamel finished shades feature a white interior and a black outer rim. (2) All Powder Coat finished shades, with the exception of Galvanized, feature a white interior. (3) Selecting Acrylic Diffuser will reduce the amount of lumens and LPW delivered. (4) Fixture to be CSA Listed for Damp Location. (5) Not available with 16" size shade.*

LIGHT SOURCE

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. To obtain an IES file specific to your project, please contact the factory. Please Note: Selecting an Acrylic Diffuser will reduce the amount of Lumens and LPW delivered.

	Source Lumens	850		1250		2000	
	Drive Current	440		440		900	
	Wattage	11		18		27	
Shade Size	Optics	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW
WHU12	Flat	845	74	1243	77	1990	74
	Domed	821	72	1208	75	1915	71
WHU14	Flat	840	74	1235	77	1983	73
	Domed	813	71	1196	75	1903	70
WHU16	Flat	839	74	1234	77	1977	73
	Domed	812	71	1194	74	1891	70

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SITE LIGHTING DETAILS
SHEET 61 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE

SITUATED IN THE NORTHEAST 1/4 OF SECTION 10 AND THE NORTHWEST 1/4 OF SECTION 11,
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

TYPE L7a

ASH 8 OUTDOOR WALL

VISUAL COMFORT & CO.

PRODUCT FEATURES

- From the brand formerly known as Tech Lighting
- Powerful, long lasting (L70, 70,000 hours) dimmable LED tested against the highest quality standards to ensure it delivers consistent LED performance and color over time.
- Die-cast aluminum structure, powder coat finish, and stainless steel hardware for robust durability in harsh elements.
- Universal 120-277 volt driver with integral transient surge protection at 2.5KV per American National Standard (ANSI) and IEEE standards.
- Wet listed, IP65 (International Protection rating indicating resistance to dust and water. Suitable and safe for commercial use).
- Available high or low output with a choice of 2700K or 3000K color temperatures. Available in modern finishes



LAMPING

LIGHT SOURCE IS RECESSED IN FIXUTRE HOUSING.



ORDERING INFORMATION

700OWASH	CRI	LENGTH (A)	LENS (A)	FINISH	VOLTAGE	OPTIONS
	HS27 90 CRI 2700K HIGH OUTPUT LS27 90 CRI 2700K LOW OUTPUT HS30 90 CRI 3000K HIGH OUTPUT LS30 90 CRI 3000K LOW OUTPUT	8"8"	C CYLINDER D DOME	Z BRONZE H CHARCOAL	UNV 120V-277V UNV	NONE PC BUTTON PHOTOCONTROL SP SURGE PROTECTION

TYPE L8

HYDREL

CATALOG NUMBER:
NOTES:
TYPE:



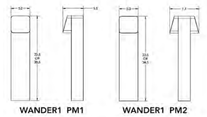
WANDER
Pathway and Step Light Family
Pedestal Mount

5 YEAR WARRANTY
67 IP RATED
BAA
BABA
IK10
DarkSky Approved
Pedestrian Comfort Luminaire

HIGHLIGHTS

- Available in 2 sizes and 2 heights and with single or double sided head fixture options for a wide range of pathway applications
- Sturdy die-cast body with IK10 impact rating
- Integral sealed driver module
- Hydrel Exclusive "Flow-Thru" technology, featuring independently encapsulated LED module and Driver module
- IP67 Rated
- Precision acrylic optic available in 3 tailored distributions
- Industry leading performance with up to 1750 delivered lumens
- Achieve excellent uniformity and meet egress lighting requirements with fixture spacings of up to 25' on-center (@ H38 height option)
- Emergency battery option
- 120V GFCI receptacle option
- Fully shielded, BUG U-0 rating
- ADA-compliant design
- 3G vibration rated per ANCI C136.31
- DarkSky Approved Pedestrian Comfort Luminaire

DIMENSIONS



PERFORMANCE SUMMARY

Model	Performance Package	Distribution	Delivered Lumens	Watts	LPW
WANDER1	P1	SW	334	4.4	76
		MW	334	4.4	76
		LM	335	4.4	76
	P2	SW	677	10.2	66
		MW	676	10.2	66
		LM	679	10.2	67
WANDER3	P1	SW	1152	12.7	91
		MW	1150	12.7	91
		LM	1155	12.7	91
	P2	SW	1749	21.3	82
		MW	1746	21.3	82
		LM	1753	21.3	82

Note: Based on PM1, 4000K

ORDERING INFORMATION

EXAMPLE: WANDER1 PM1 H22 P1 90CRI 27K MVOLT LM ZT BL

Model*	Style*	Height*	Performance Package*	CRI	Color Temperature*	Voltage*	Distribution*
WANDER1 One Optic Pathway Light WANDER3 Three Optic Pathway Light	PM1 Pedestal Mount, Single Head PM2 Pedestal Mount, Double Head	H22 22"Height H38 38"Height	P1 P2 Note: P2 is not available with AMBLW, RED, GRN and BLU	90CRI Note: 90 CRI is only required with 27K, 30K, 35K and 40K	27K 2700K 30K 3000K 35K 3500K 40K 4000K AMBLW Amber Limited Wavelength 590nm RED Red GRN Green BLU Blue Note: AMBLW, RED, GRN and BLU are not available with P2	MVOLT 347V 480V 277V 120 120 Volt 12 12 Volt Note: 12 Volt is not available with WANDER3 Note: AMBLW, RED, GRN and BLU are not available with 12 Volt Note: 120 Volt is only available with options GFCI or ELN Note: 12 Volt requires a remote transformer	SW Short Forward, Wide Lateral Distribution MW Medium Forward, Wide Lateral Distribution LM Long Forward, Medium Lateral Distribution

Control Input	Options	Finish*	
ZT 0-10V Dimming (Sinks to Dark) ELV Reverse Phase ZT and ELV options are not available with 12V	GFCI Receptacle, 120 volt only. ELN Battery Back Up, 120 volt only Note: ELN is only available with WANDER3 PM1	BL Black Textured BRS Bronze Smooth BRT Bronze Textured DBL Designer Black Smooth DDB Designer Bronze Smooth DNA Natural Aluminum Smooth	NBS Natural Bronze Smooth WH White Textured WHS White Smooth _Z[1] Zinc Undercoat for harsh environment (Example BLZ) CF Custom RALTED[2] Ral Paint Finishes Note: Additional standard finish options available. See page 11.

Note: * is required field.

Notes:
1. Zinc Undercoat provides corrosion protection for Marine Environment and Natatorium Construction
2. RALTED for pricing only, replace with applicable RAL call out when ready to order. See the RAL/PREMIUM FINISH SELECTION GUIDE for available Hydrel products only use textured paint.

LUMEN OUTPUT - WANDER3 PM1

Performance Package	System Watts	Distribution Type	27K (2700K, 90CRI)			30K (3000K, 90CRI)			35K (3500K, 90CRI)			40K (4000K, 90CRI)		
			Lumens	LPW	BUG	Lumens	LPW	BUG	Lumens	LPW	BUG	Lumens	LPW	BUG
P1	12.7	SW	964	76	B0-U0-G1	1042	82	B0-U0-G1	1108	87	B0-U0-G1	1152	91	B0-U0-G1
		MW	962	76	B0-U0-G1	1040	82	B0-U0-G1	1106	87	B0-U0-G1	1150	91	B0-U0-G1
		LM	966	76	B0-U0-G1	1044	82	B0-U0-G1	1111	87	B0-U0-G1	1155	91	B0-U0-G1
P2	21.3	SW	1463	69	B0-U0-G1	1580	74	B0-U0-G1	1681	79	B0-U0-G1	1749	82	B0-U0-G1
		MW	1460	69	B0-U0-G1	1578	74	B0-U0-G1	1679	79	B0-U0-G1	1746	82	B0-U0-G1
		LM	1466	69	B0-U0-G1	1584	74	B0-U0-G1	1685	79	B0-U0-G1	1753	82	B0-U0-G1

TYPE L10

Project		Catalog #		Type	
Prepared by		Notes		Date	



HALO
SMD6 Surface Mount LED Downlight

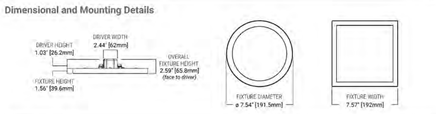
The HALO SMD Surface Mount Downlight combines modern style with high performance, suitable for new construction, remodel, and retrofit projects. Its sleek design remains unchanged, but the installation process is now easier thanks to a new twist and lock mounting bracket. This bracket ensures a secure, gap-free fit, providing a flawless finish. The SMD series can be installed directly to a junction box or recessed housings, making it versatile for any lighting project. Enjoy the perfect blend of style and functionality with a hassle-free installation.

Typical Applications: Residential

Interactive Menu
- Order Information page 2
- Product Specifications page 3
- Photometric Data page 4
- Product Warranty

Top Product Features
- 6" Surface Mount Downlight
- Redesigned Mounting Bracket for faster installation
- Installs in many 3-1/2" and 4" (30/40) square, octagonal, or round junction boxes
- 5-color Field-SelectCTable (27/30/35/40/5000K); 90+ CRI
- **Brightness (@3000K):** 800 lm (Round); 710 lm (Square)
- **Dimming:** Dims to 5% (phase cut LE/TE) with compatible dimmers; 120V input
- Mounting hardware, orange LED Quick Connect and E26 adapter included
- Decorative Overlays (sold separately)
- AIR-TITE, wet location-listed, IC-rated, and ENERGY STAR® certified
- 50,000 hrs of maintenance-free operation
- 5-year warranty

Dimensional and Mounting Details



COOPER Lighting Solutions
a Signify business

*724 and Re4lit are self-tested by Cooper Lighting Solutions. Not a third party certification.

HALO SMD6 Surface Mount LED Downlight

Order Information

Catalog Number	Description	Lumens (3000K)	CCT	Finish	Driver Compatibility	Packaging
SMD6RT6	6" Round Surface Mount LED Downlight	800 lm	90+ CRI, Field Selectable CCT: 2700/3000/3500/4000/5000K	Matte White	120V 60Hz, 12 & TE phase-cut 100–3% dimming	Plastic-free recyclable
SMD6SR6	6" Square Surface Mount LED Downlight	710 lm	90+ CRI, Field Selectable CCT: 2700/3000/3500/4000/5000K	Matte White	120V 60Hz, 12 & TE phase-cut 100–5% dimming	Plastic-free recyclable

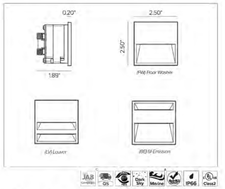
TYPE L9

TARGETTI

ZEDGE MINI

Miniature LED Steplight





Left to right shown in Louver Emission shown in Deep Black finish, Mitre Emission in Matte Dark Grey finish, Four Weave Baffle in Sandstone Grey finish

CONCEPT

Recessed LED steplight for indoor and outdoor applications.
Designed in collaboration with Gensler as Product Design Consultant.

MECHANICAL CHARACTERISTICS

Housing	2.5"W x 2.5"H x 1.89"D
Materials	Die-cast anodized aluminum body fitted with a spring fixing system. Powder-coated die-cast anodized aluminum external frame. Aesthetically pleasing with no visible hardware.
Finish	Textured finish. ● Matte Dark Grey ● Heritage Brown ● Bronze ● Black ○ White ● Sandstone Grey
Power Connection	Pre-cabled with 3' Belden 18ga 2 conductor direct burial cable (no conduit required).
Mounting	To be completed with installation back box. Fixture secured with stainless steel spring system for semi-flush installation only. Recommended mounting height is +18" A.F.F.
BUG	B1-U0-G0 / B0-U0-G0 BE Emission only
Weight	0.3lbs.
Protection	IP66
Impact	IK10

ELECTRICAL CHARACTERISTICS

Power Supply	Reverse Class 2, 120V-277VAC power supply required, see available options. Flicker free dimming achieved through driver.
Wattage	4W
Voltage	24V DC
Ambient Temp.	-25°C / +35°C (95°F)

SOURCE

High Efficiency LED Board.

TM30	CCT (Nominal)	CRI	Rf	Rg	SDCM
ZEDGE MINI version	2700K	90	83	97.3	2
	3000K	90	82.9	97	2
	3500K	90	83.6	96.5	2
	4000K	90	82.6	95.7	2
ZEDGE MINI HO version	2700K	90	90.9	100.1	2
	3000K	90	90.3	100.4	2
	3500K	90	83.6	96.5	2
	4000K	90	89.8	98.7	2

OPTIC

Uniform optical distribution and excellent visual comfort. Optical system is dependent version. FW / LV / BE versions are comprised of polycarbonate opal lens, HOFW version is comprised of polycarbonate clear lens. LV version comprised of a high reflectance anodized aluminum reflector.

Beam	FW 56°x94°	LV 49°x100°	BE 48°x75°	HO FW 27°x92°
Delivered Lumens	2700K 585.lm	2700K 215.lm	2700K 315.lm	2700K 171.lm
	3000K 721.lm	3000K 313.lm	3000K 106.lm	3000K 181.lm
	3500K 741.lm	3500K 341.lm	3500K 104.lm	3500K 186.lm
	4000K 741.lm	4000K 328.lm	4000K 104.lm	4000K 187.lm
Efficacy	48lm/W max. Refer to photometric graphs for specific values.			
Lifetime	L80/B10 56,000hrs at max TA +25°C			
Photobiological Classification	Low risk photobiological safety RG1			

CERTIFICATIONS

cULus Class 2 Wet Location Listed (477973).
Tested in accordance with LM-79-08.
Compliant for California installations.
RoHS EU 2015/863.
[1] CEC T24 JA8-2019-E certified, ZEDGE MINI HO version only in conjunction with DMLE60120242UID driver.

WARRANTY

5 year limited warranty

SUSTAINABILITY

Luminaire designed for disposal/recycling at end-of-life. Replaceable LED light source and control gear by a Targetti technician.

Targetti USA 3F Filippi | Targetti Group Company 750-A W. 17th St, Costa Mesa, CA 92627 (714) 513-8191 targettiusa.com rev. 12.04.24 pg. 1 of 9

TARGETTI

ZEDGE MINI

SPECIFICATION INFORMATION

ZES

1	2	3	4	5	6	7	8	9	10

Ex: ZESMPWTELBX24/CB12WDIUD / TJEJWA-B

OPTIONAL / REQUIRED

1 - PRODUCT CODE	2 - DRIVER	3 - FACEPLATE	4 - FINISH	5 - WATTAGE	6 - KELVIN	7 - VOLTAGE
ZES — ZEDGE MINI ZESMO [1] — ZEDGE MINI HIGH OUTPUT	— Remote Power	FW — Floor Washer LV — Louvre BE — Bi-Emissive FW — Floor Washer	FB — Ferrite Dark Grey HB — Heritage Brown BZ — Bronze WT — White BT — Black SG — Sandstone Grey RAL — Custom [3]	4W — 4W	27 — 2700K 30 — 3000K 35 — 3500K 40 — 4000K	24V — 24V DC

8 - OPTIONAL	9 - POWER SUPPLY	10 - INSTALLATION
MG* — Marine Grade	See section for details	Pre-drilled (Std.) See section for details Recessed Cover Plate (Std.) See section for details Mid-Fix See section for details

* Marine Grade is recommended for use in environments with corrosive exposure (< 100 yd. (ocean/salt water, heavy industrial, chemical, etc.). Not recommended for immersion or continuous splashing. If wall mounting, corrosive salt-moving gusts can accumulate; suitable for use in marine grade environments, but fixture should connect with salt-air rainblown debris for extended periods of time.
[1] High Output version only available in FW luminaire and L2 wattage.
[2] Custom RAL color available in FW luminaire and L2 wattage.
[3] Consult factory for RAL color availability.

9 - POWER SUPPLY (REQUIRED)

ENCLOSURE

Part No.	Wattage	Control	Dim Range	Rating	In / Out Voltage	Certification	Dimensions (Enclosure)	Description
DMLE30120242UID	30W	MLV / ELV / 0-10V / TRIAC	0-10V -5% MLV -10% ELV -10%	NEMA3R	120-277V / 24V	UL Class 2	4.47" X 6.79" X 1.38"	EMCOD MLE-UID electronic driver with wiring compartment.
DMLE60120242UID	60W	MLV / ELV / 0-10V / TRIAC	0-10V -5% MLV -10% ELV -10%	NEMA3R	120-277V / 24V	UL Class 2	4.47" X 6.79" X 1.38"	EMCOD MLE-UID electronic driver with wiring compartment.
DMLE96124242UID	96W	MLV / ELV / 0-10V / TRIAC	0-10V -5% MLV -10% ELV -10%	NEMA3R	120-277V / 24V	UL Class 2	5.16" X 7.73" X 1.54"	EMCOD MLE-UID electronic driver with wiring compartment.

GIVEN & ASSOCIATES INC
MECHANICAL & ELECTRICAL ENGINEERS
735 S. Xenon Ct. #201
Lakewood, Colorado 80228
Ph: 303.716.1270
Fax: 303.716.1272
www.givenandassociates.com

Given Project # 23069

SITE LIGHTING DETAILS
SHEET 62 OF 62
SITE DEVELOPMENT PLAN
THE BRICKYARD MIXED USE
PROJECT NO: SDP24-0022

PROJECT #23-008734.00
10375 Park Meadows Drive, Suite 425
Lone Tree, CO 80124

303.694.6622
walkerconsultants.com

DATE:	August 22, 2025
TO:	Mr. Tony DeSimone & Mr. Tucker Bennett
ORGANIZATION:	Confluence Companies, LLC
ADDRESS:	430 Indiana St., Suite 200
CITY/STATE:	Golden, CO 80401
FROM:	Drew Willsey, AICP
PROJECT NAME:	Parking Study Services for Acme Brickyard
PROJECT NUMBER:	23-008734.00

KEY FINDINGS

- The Client is proposing a mixed-use development just west of downtown Castle Rock.
- The Client, as of August 22, 2025, is proposing development, at full buildout, consisting of:
    - 384 multi-family residential dwelling units.
        - 384 apartment dwelling units.
    - 1 business-orientated hotel.
        - 123 hotel rooms.
        - 6,000 square feet of hotel conference space (performance venue with about 300 seats, all of which are non-fixed).
    - 22,900 square feet (about 723 seats) of fine/casual restaurant dining space.
    - 1,500 square feet of market and 15,000 square feet of supermarket space.
    - A 145,000 square foot Sports Development Center.
    - A 60,000 square foot “traditional” bowling alley.
    - 7,000 square feet of general retail space.
    - 56,000 square feet of office space.
        - 25,000 square feet of traditional office space.
        - 31,000 square feet of medical office space.
- The Client retained Walker Consultants (“Walker”) to conduct a shared parking study to determine parking needs for the proposed development.
    - Walker is a parking and transportation planning, management, and design firm in operation since 1965.
- According to minimum parking requirements by use as a function of traditional zoning, Walker calculated that approximately 2,312 (rounded up) spaces would be required for the site zoning as proposed at buildout.
    - 1,544 spaces total would be required for all non-commercial uses.
        - These uses comprise all uses other than the multi-family residential use, including the hotel, office, bowling, and civic use (the Sports Development Center).
    - 768 spaces total would be required for all residential dwelling units (under the Municipal Code requirement of 2.00 per unit).
    - These parking requirements do not consider any joint use, or shared use, of parking amongst the component land uses, nor do they consider factors such as internal capture and mode split.

- Because the parking requirements under tradition zoning do not consider any joint use, or factors such as internal capture and mode split, the Client has been in negotiation with the Town throughout the planning process to submit a Parking Plan that factors in joint use, or shared use, as well as internal capture and mode split, in order to result in a reduced number of physical spaces provided while ensuring that peak parking needs are being satisfied for all uses during typical peak periods.
    - This includes ensuring that minimum requirements under the traditional zoning are being satisfied for the multi-family and hotel uses during the times when parking demand for those uses is at its highest.
- As a dense, mixed-use development, parking supply for many of the land uses proposed could be shared in order to maximize efficiency and ensure that the parking supply is being well used while still accommodating peak parking demand loads.
    - Sharing of parking could occur for each use outside of peak times and/or outside estimated hours of operation.
- To calculate optimized parking needs for the site, assuming the maximum land use intensity values described above, Walker used its Shared Parking Model, which is a parking demand model that takes into account parking demand for more than 45 different land uses; the availability and use of alternative modes of transportation; captive market effects; and daily, hourly, and seasonal variations for all planned land uses.
    - The intent of the SPM is to design a parking supply for the busiest hour of the year, busiest day of the year, and busiest month of the year, at an 85th percentile level relative to similar properties and under typical conditions.
        - The SPM examines parking demand for a typical (85th percentile) peak weekday as well as a typical (85th percentile) peak weekend day, with the number of physical spaces needed for the system ultimately being determined by whichever day type (peak weekday or peak weekend) results in the greatest parking need.
    - Data points used to determine base ratios for the land uses provided in the SPM are primarily sourced from typical, suburban, auto-orientated development at low or mid densities.
        - Low densities are typically defined as buildings with up to 3 levels.
        - Mid densities are typically defined as buildings with between 3 and 10 levels.
    - Conservative adjustment values for captivity were made where appropriate based on previous experience with mixed-use developments in suburban contexts (Walker made modest, in percentage terms, adjustments down to account for internal capture for most uses).
    - Modest adjustments for mode split were made that are based on auto ownership and other Census data available for the Town of Castle Rock and the surrounding region.
        - Mode split adjustments were not made as a function of transit as Castle Rock is located outside the boundaries of the Regional Transportation District (RTD).
- After determining appropriate baseline parking demand ratios for unique land uses not in the SPM, and making customized adjustments for mode split and captivity for all land uses, Walker projects the following maximum parking supplies required to accommodate typical peak demand loads for the proposed maximum programming:
    - Weekday overall peak parking need, at 6 PM in December, is projected to be 1,466 spaces at buildout (rounded).

  - Weekend/absolute overall peak parking need, at 1 PM in December, **is projected to be 1,521 physical spaces at buildout (rounded).**
    - This is 791 spaces fewer than Town code under traditional zoning with no joint use or other allowances or reductions made for any reason.
    - In Walker's opinion, traditional Town requirements, with no joint use or reductions made for any reason, would therefore result in an overall parking supply that is unnecessarily high, with significant, unused parking supply, even during peak periods.
- To determine parking needs for the planned Sports Development Center (208 spaces on weekdays and 447 spaces on weekends), Walker used and assumed ratios and parking needs figures that were determined from analysis by a separate parking study, and that were accepted by the Town, that analyzed typical activity and tournament activity scenarios for the Sports Development Center.
  - Figures from the recommended "build-to" scenario provided in that study were used here for a typical weekday and a tournament weekend.
  - Peak activity was assumed, based on approved supply figures, to occur during the early evening on weekdays and during late mornings/early afternoons on weekends.
- Based on calculated peak parking needs within a shared or joint parking use model, Walker determined a set of proposed ratios for each component land use based on the systemwide overall projected peak.
  - Walker determined that, during the weekend systemwide projected peak, a build-to supply of 1,521 physical, individual spaces with parking supply sharing amongst the component uses is approximately equivalent to providing 2,068 physical spaces if the needs of each component land use were considered separately and severally, with no shared or joint use.
    - This figure assumes a ratio of 2.00 spaces per dwelling unit and 1.20 spaces per hotel room are provided and available during residential and hotel peak times, which occur overnight when other uses do not generate significant parking demand.
    - This figure is 244 spaces lower than the Town requirement with no joint use or reductions made.
  - Proposed ratios are based on the total maximum available parking supply possible for each land use at each use's peak time(s), when the maximum supply would be needed and required.
  - The difference between projected, actual parking needs ratios per land use under a shared parking model and the proposed ratios constitute the total pool of available or potentially available parking supplies/ratios for other uses during the peak systemwide time.
    - Such spaces, due to their ability to be shared during the peak time with at least one other use, can effectively be "double counted" in order to achieve both proposed ratios per land use as well as count towards the number of physical parking spaces proposed.
    - This model ensures that the proposed parking spaces and parking supply ratios per land use would be able to provide up to the full proposed ratio during individual peak times for each component land use, with some spaces available to be shared by other uses during the individual respective off-peak times when some spaces may be available for sharing.
  - The Client has indicated that all residential apartment parking is to be provided "bundled" at no additional charge to renters.
  - Along Prairie Hawk Drive, approximately 93 on-street parking spaces will be provided to act as "overflow" parking for the proposed development.

        - These spaces could provide "overflow" capacity during the largest tournaments at the Sports Center or during any other time when they may be needed.
- The Town will reserve the right to prohibit Sports Development Center spaces for shared use by other component land uses during certain Town events.
    - In Walker's opinion, even the reservation of such spaces during such events would likely not result in significantly increased parking needs above what has been projected herein.
        - This is because Sports Development Center parking demand is already by far the most significant driver of systemwide demand during the project systemwide peak.
        - Also, there would likely be an even higher captive adjustment for commercial uses than what has been modeled herein during such events, as an even greater share of non-commercial parking demand would likely be associated with captive Sports Development Center users and visitors than on a typical peak day.
- Projected parking demand and Town requirements by land use and development phase have been provided using the Town's joint-use parking tables in the Appendix (three phases shown).

INTRODUCTION

Confluence Companies (the "Client") and its architect, Craine Architecture, are in the planning stages for the zoning of a large mixed-use development in Castle Rock called The Brickyard.

Primary non-residential uses for the development are planned to consist of general retail space, a small food market, fast/casual restaurant space, a hotel with conference space, general office space, medical office space, and a large recreational facility, or Sports Development Center. The Sports Development Center is envisioned to serve as both a recreational center for public use as well as a multi-use sports venue to host basketball, volleyball, and other tournaments for public schools in Castle Rock and surrounding areas.

In addition to the non-commercial uses, 384 multi-family apartment dwelling units are planned as of Aug. 2025.

The Brickyard site is located directly west of downtown Castle Rock, across the 25 Freeway. The site is bordered approximately by Plum Creek Parkway to the south, Prairie Hawk Drive to the east, Topeka Way to the north, and right-of-way for a future Atchison Way extension to the west. At buildout, it will be possible to access the site from both Wolfensberger Road, via Prairie Hawk Drive, as well as from Plum Creek Parkway via the extended Atchison Way.

For the Sports Development Center, the Client is planning to provide around 447 parking spaces, which equates to a ratio of about 3.26 spaces per 1,000 square feet. This planned supply is based on the results of a separate, detailed study that was conducted to determine and quantify parking needs for the Sports Development Center. In this study, it was determined that total peak parking needs would equal about 447 spaces, or a ratio of 3.08, on a typical weekend late morning/early afternoon.

It is Walker's understanding that this study, and associated peak parking need and proposed supply, have been accepted by the Town Parks & Recreation Department. Walker notes that the Town will reserve the right to prohibit Sports Development spaces for shared use by other component land uses during certain Town events.

For all planned residential dwelling units, the Client is planning to provide 2 spaces per unit, for both multi-family apartment units as well as town home units. This ratio is consistent with the increased parking requirements for multi-family developments that was approved by the Town Council in Summer 2023. For the planned town home units, the Client is planning to provide the required parking as tuck-under or garage parking within each town home unit. Outside of those uses, the planned parking supply is still in the process of being determined by the Client.

As of this writing, it is anticipated that all required parking will be provided in the form of mostly surface parking with some garage parking. However, about 93 on-street parking spaces will also be constructed along Prairie Hawk Drive that would be available for general public use for the Brickyard, in addition to the proposed off-street parking supply.

Residential parking demand will be accommodated with a combination of self-contained garage, tuck-under, and surface parking located on-site for each multi-family residential building planned. The Client has indicated that all residential apartment parking is to be provided "bundled" at no additional charge to renters. **Any fees for residential parking spaces will be included in that total cost of rent and will not be assessed for residents as a separate fee or as an amenity that needs to be purchased or leased separately.**

Walker Consultants ("Walker") has been retained to conduct an analysis of parking needs for the proposed development, as well as provide potential strategies for transportation demand management, if needed, that could support more effective operation of the parking system for the development.

This is the 11th issuance of this memo that was initially issued in October 2022, in response to ongoing dialogue with Town planning staff and amendments and continued refinement to the proposed land use mix and respective intensities proposed by the Client for this development, as well as ongoing changes in Town parking requirements.

CURRENT TOWN REQUIREMENT

The proposed development will likely be zoned as part of the Chapter 17.32 of the Castle Rock Municipal Code, as amended, provides the authority for the Town to establish custom zoning regulations for a development through a Planned Development Plan, or PD. As of this writing, the Client is petitioning for the establishment of such a planned development under Town Code. As such, the Client is petitioning to establish custom parking requirements to be established for the development under that authority.

As part of the custom zoning, provisions will be established that allow for joint use of some of the parking supply, as allowed under Section 17.54.060 of the Municipal Code.

BUILDOUT REQUIREMENT UNDER TRADITIONAL ZONING WITH NO JOINT USE

Figure 1 below provides detailed buildout programming for all the site's planned non-residential land uses, as specified in the latest programming documents provided to Walker by the Client, along with corresponding parking minimum requirements by land use for the land use that most closely corresponds to the planned use as they would be calculated under the Town's traditional zoning, without any reductions or exceptions, outside of a PD.

Figure 1: Proposed Buildout Programming & Commercial Parking Requirements by Code (Traditional Zoning)

Proposed Programming					Current Town Requirement (Assuming Individual, Separate Uses with No Joint Use of Parking and No Planned Development)			
Land Use Category	**Type of Unit/Specific Land Use Type**		**Quantity**	**per Unit**	**Use Category Description (Table 64-1 of Castle Rock Municipal Code)**	**Ratio**	**per Unit**	**Number of Spaces Required**
Hotel	Guest Rooms[1]		123	Keys or Rooms	Hotel, motel and bed and breakfast establishment	1.2	Guest Room	148
	Conference Space[2,3,4]		6,000	Square Feet	Places of public assembly	5	1,000 Square Feet	30
			300	Non-Fixed Seats		1	3 Fixed Seats (No Requirement for Non-Fixed Seats)	0
							Sub-Total (Hotel)	**178**
Commercial	All Food & Beverage Space	Restaurant (Fine / Casual Dining)[5]	22,900	Square Feet	Full-service, low turnover	12	1,000 Square Feet	275
			723	Seats		1	3 Seats	
		Restaurant (Fast Casual / Fast Food)[5,6]	0	Square Feet	Fast food, family, high turnover	10	1,000 Square Feet	0
		Market[7]	1,500	Square Feet	Market - supermarket	5	1,000 Square Feet	8
		Supermarket	15,000	Square Feet	Market - supermarket	5	1,000 Square Feet	75
		Sub-Total (All Food & Beverage Space)	**24,400**	**Square Feet**			**Sub-Total (All Food & Beverage Space)**	**357**
	General Retail		7,000	Square Feet	Retail, personal service, repair-oriented use	5	1,000 Square Feet	35
	All Office Space	General Office	25,000	Square Feet	General office facility	4	1,000 Square Feet	100
		Medical / Dental Office	31,000	Square Feet	Medical office and clinic	5	1,000 Square Feet	155
		Sub-Total (All Office Space)	**56,000**	**Square Feet**			**Sub-Total (All Office Space)**	**255**
	Bowling Alley	Lanes[8]	62	Lanes	Bowling	2	Lane	124
		Employees[9]	60,000	Square Feet		1	Employee on Maximum Shift	14
							Sub-Total (Bowling Alley)	**138**
							Sub-Total (Commercial)	**785**
Civic	Sports Development Center		145,000	Square Feet	Health club and sports instruction facility	4	1,000 Square Feet	580
							Total (All)	**1,544**

[1] Assuming no standalone accessory uses.

[2] "Places of public assembly" appears to be nearest land use described in Town code.

[3] Requirement also specifies 1 space for each 3 fixed seats in the main assembly area. Assuming no fixed seats or other additional uses.

[4] Seat capacity of approximately 300 reported by Client as of August 2025.

[5] Walker estimated number of seats proportionately assuming 60% of total square feet dedicated to dining room space and assuming an average 13.5 square feet per diner for fast food space and 19 space feet per diner for fine dining space.

[6] Assuming no drive-thru / stacking spaces. Specifies that requirement is per square feet or per 3 seats, "whichever provides the most parking." Assuming that per square feet provides the most parking.

[7] No minimum size specified for supermarket vs. convenience store; requirement for "market - convenience" specifies 5 per 1,000 plus 1 space per employee; requirement for "market - supermarket" has no employee requirement.

[8] Client reported a maximum possible of 62 lanes.

[9] Assuming 14 employees on maximum shift based on employee parking ratios derived in Walker's Shared Parking Model

Currently, without any reductions or variances and assuming the ratio requirements shown above for the unlisted specific land uses as specified in the project matrix, Walker calculates that a total of 1,544 (rounded) parking spaces would be required for the planned non-commercial space, including the Sports Development Center, if it were planned under traditional zoning.

Figure 2 below provides detailed buildout programming for all the site's planned residential land uses and associated parking supply requirement, as it would be calculated under traditional zoning with no joint use. Note that the Client specified to Walker that it is now assuming a unit mix, by number of bedrooms, of about 5% studio units, 45% 1-bedroom units, 45% 2-bedroom units, and 5% 3-bedroom units. For purposes of this model, Walker multiplied the total planned number of units, as specified in the land use programming provided, by the given percentages for all planned apartment units. These assumed percentages are shown in orange.

It should be noted that the Town recently updated its minimum requirements, under traditional zoning, for all multi-family residential dwelling units to 2 per unit, regardless of the number of bedrooms.

Figure 2: Proposed Buildout Programming & Residential Parking Requirements by Code (Traditional Zoning)

Proposed Programming					Town Requirement (Assuming Individual Uses and No Joint Use of Parking & No Planned Development)			
Type of Unit	Assumed Percent Distribution of Unit Type	Unit Type	Quantity	per Unit	Use Category Description (Table 64-1 of Castle Rock Municipal Code)	Ratio	per Unit	Number of Spaces Required Before Reductions
Multi-family Apartments	5%	Studio	19	Dwelling Units	Multifamily - Downtown Overlay District	2.00	per Dwelling Unit	38
	45%	1 Bedroom	173			2.00		346
	45%	2 Bedrooms	173			2.00		346
	5%	3 + Bedrooms	19			2.00		38
		Sub-Total	**384**				**Sub-Total**	**768**
							Total Requirement (Residential)	**768**

Currently, assuming a requirement ratio of 2.00 spaces per unit for all apartment and town home units, Walker calculates that a total of approximately 768 spaces would be required for the planned residential units.

As of this writing, no town home units are being planned.

PROJECTED PARKING NEED AT BUILDOUT (ASSUMING JOINT USE OF PARKING)

WALKER'S SHARED PARKING MODEL

Shared parking methodology was developed in the 1980s and has been a widely accepted industry standard for rightsizing parking facilities over the past 30+ years. Adopted by cities throughout the U.S. and codified in zoning ordinances as an accepted practice, shared parking is endorsed by the Urban Land Institute (ULI), the American Planning Association (APA), the National Parking Association (NPA), and International Council of Shopping Centers (ICSC), as an acceptable method of parking planning and management.

Shared parking allows for the sharing of parking spaces among uses in a mixed-use environment. Generally, it is defined as the ability to use the same parking resource by multiple nearby or adjacent land uses without encroachment. Walker's Shared Parking Model takes into account parking demand for more than 45 different land uses; the availability and use of alternative modes of transportation; captive market effects[1]; and daily, hourly, and seasonal variations. In the case of this project, a shared parking analysis recognizes the interrelationship of parking among employees, visitors, customers, and residents. A shared parking model generates 456 parking demand computations as follows:

- 19 hours during a day, beginning at 6 a.m. and concluding at 1 a.m.
- 2 days per week, a weekday and a weekend day
- 12 months of the year
- 19 x 2 x 12 = 456 different calculations

The parking need for the modeled land use mix is derived based on the highest figure generated from these 456 computations. Therefore, the intent is to design for the busiest hour of the year, busiest day of the year, and busiest month of the year, at an 85th percentile level relative to similar properties and under typical conditions.

A shared parking analysis begins first by taking the land use quantities of the Project (i.e., square footage of office space, number of hotel rooms, number of dwelling units) and multiplying by a base parking demand ratio and monthly and hourly adjustment factors. All base ratios and hourly and monthly adjustments are industry standards that are based on thousands of parking occupancy studies, vetted by leading parking consultants and real estate professionals, and documented within the Third Edition of ULI/ICSC's *Shared Parking* and the Institute of Transportation Engineers (ITE) Fifth Edition of *Parking Generation*.

Walker, as the consultant for this particular study and in accordance with standard shared-parking methodology, applies two additional adjustments to the base parking demand ratios, one to reflect an estimate of the local transportation modal split (called the driving ratio) and another to account for the best estimate of captive market effects[2] (called the non-captive ratio). These will all be described in more detail in the sections to follow.

Figure 3 provides an illustrative view of the steps involved in the shared parking analysis.

[1] Recognition of a user group already on site for another primary purpose and not generating incremental parking demand for an accessory use. For example, a sandwich shop located in an office tower generates very little, if any, outside parking demand. Since the parking demand for the office tower tenants has already been accounted for, to avoid double counting, a non-captive adjustment factor is applied to the parking demand calculation for the sandwich shop. In this extreme example, the non-captive ratio may be 0 percent.

[2] Captive market means attendees who are on-site for more than one reason and are not creating additive parking demand.

Figure 3: Steps of Shared Parking Analysis

Land Use Units (Number of rooms, square footage, etc.)	X	Standard or Base Parking Generation Ratio	X	Monthly Factor	X	Hourly Factor	X	Driving Ratio	X	Non-Captive Ratio	=	TOTAL

For most land uses, shared parking is based on the 85th percentile of peak-hour observations, a standard espoused by the ITE, the NPA's Parking Consultants Council, the International Parking and Mobility Institute, and renowned parking planners. This 85th percentile is a significant and high threshold to meet in terms of supplying parking capacity in that it is provides a parking supply that will not be needed by a majority of developments.

The key goal of a shared parking analysis is to find the balance between providing adequate parking to support a development from a commercial and operational standpoint and protect the interests of neighboring property owners, while minimizing the negative aspects of excessive land area or resources devoted to parking. The ultimate goal of a shared parking analysis is to find a peak period, reasonably predictable worst-case scenario, or design day condition.

PEAK AND OFF-PEAK TIMES BY SELECTED LAND USE

During the typical month, Walker has determined the expected individual peak activity times - when peak parking demand loads are typically expected to occur - for each of the proposed component land uses for the Brickyards. **Figures 4 and 5** below show expected peak parking demand times, along with the estimated hours of operation, for each component land use on weekdays and weekends respectively.

Figure 4: Peak Parking Demand Times and Estimated Hours of Operation by Land Use (Weekdays)

Land Use	Estimated Hours of Operation	Peak Time(s)
Retail	10 AM - 7 PM	1 PM
Market & Supermarket	9 AM - 9 PM	4 PM
Fine Dining	12 PM - 10 PM	7 - 9 PM
Fast Casual	11 AM - 9 PM	2 PM
Hotel	24/7	Overnight
Conference	N/A	12 - 4 PM
Residential	24/7	Overnight
Office	8 AM - 5 PM	10 - 11 AM
CRSC*	7 AM - 10 PM	7 - 8 PM
Bowling	9 AM - 11 PM	8 PM

Figure 5: Peak Parking Demand Times and Estimated Hours of Operation by Land Use (Weekdays)

Land Use	Estimated Hours of Operation	Peak Time(s)
Retail	10 AM - 7 PM	1 PM
Market & Supermarket	9 AM - 9 PM	4 PM
Fine Dining	12 PM - 10 PM	7 - 9 PM
Fast Casual	11 AM - 9 PM	2 PM
Hotel	24/7	Overnight
Conference	N/A	12 - 4 PM
Residential	24/7	Overnight
Office	8 AM - 5 PM	10 - 11 AM
CRSC*	7 AM - 10 PM	7 - 8 PM
Bowling	9 AM - 1 AM (Next Day)	6 PM, 9 - 11 PM

***** According to study performed by the Town Parks & Recreation Department, CRSC parking demand on the weekend is projected to occur during the late morning and early afternoon on tournament days. Typical non-tournament peaks shown.

Figures 6 and 7 below illustrate, by land use and hour, the hour or hours where peak parking demand is expected to occur. These hours (cells) are highlighted in red. For all other hours, the land use is projected to experience parking demand that is lower than at the peak time for that use. These hours (cells) are highlighted in green.

During these off-peak hours, it can be expected that at least some parking supply allocated or effectively allocated for a given land use will not be needed to accommodate parking demand for that use. Therefore, the parking supply for that use would presumably be able to share, or have the potential to share, at least some excess parking capacity for other uses in order to help meet the parking needs for those uses, particularly when or if parking needs are nearing or have reached their peak for those uses.

A complete quantification of expected parking needs by day and hour for every component land use proposed for the Brickyards is provided in the **Appendix.**

Figure 6: Peak Parking Demand Times and Estimated Hours of Operation by Land Use (Weekdays)

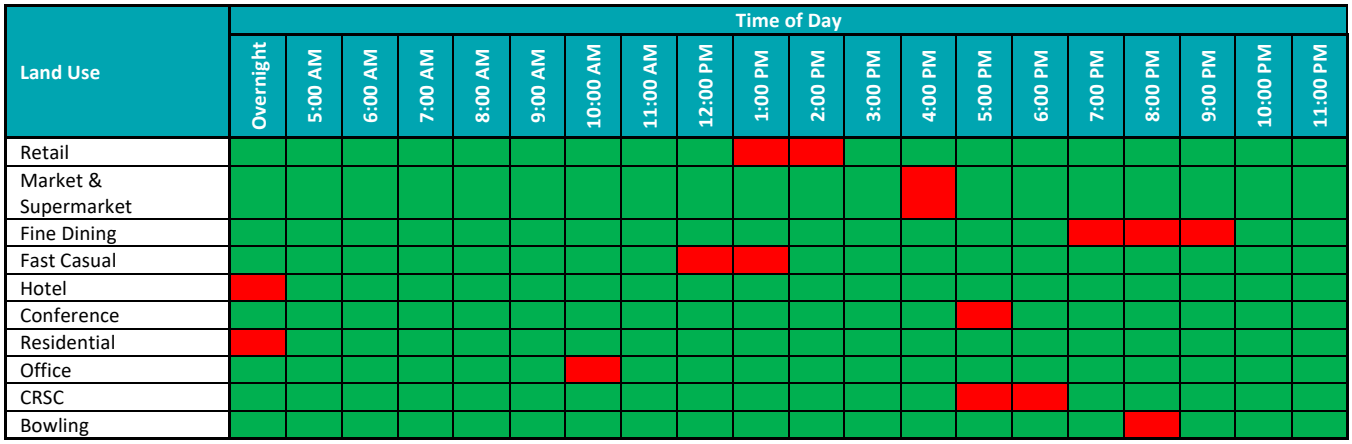
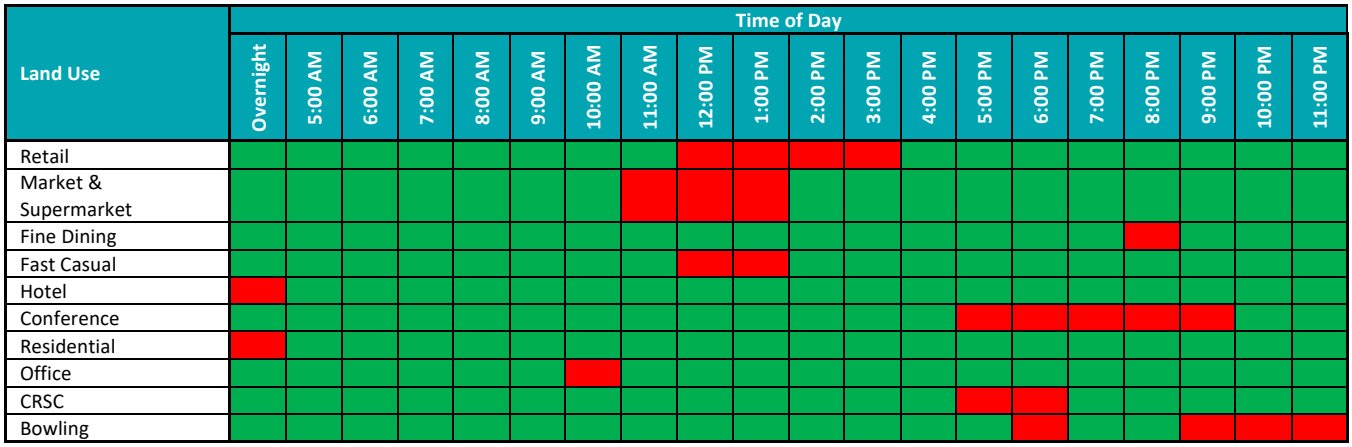


Figure 7: Peak Parking Demand Times and Estimated Hours of Operation by Land Use (Weekends)



MODEL SCENARIOS & ASSUMPTIONS

Our parking demand model assumes conditions typical of a medium-density mixed-use development within a typical suburban land use context. It should be noted that the Town recognizes the Brickyard as a high-density mixed-use development.

Also, note that the Town of Castle Rock falls completely outside of the Regional Transportation District (RTD). As such, the Town, and the Acme Brickyards development, is not served by local or metro-area transit. Moreover, the Bustang statewide regional bus service does not provide service to Castle Rock at this time.

LAND USE CONTEXT & DATA POINTS USED

In all cases, base ratios used for every proposed land use contained in this model, as well as all mode split and captivity adjustments, have been based on data mostly or principally derived from sample sites from across the United States that are located within a general suburban, low- or mid-density context, that are not located close to or near transit. Base ratios, therefore, were not derived exclusively or mostly from urban or high-density context sites and/or sites with excellent transit access.

As a result, in Walker's opinion, base ratios used herein are in line with and appropriate for the context of the Town of Castle Rock.

RESERVED VERSUS UNRESERVED PARKING

Reserved parking is parking that is guaranteed to be available to a respective user at all times of the day, every day. Such parking may be individually signed or numbered, and the user is entitled to that space's availability at all times. Parking may be reserved for any user group. Unreserved parking is parking that is not necessarily guaranteed to be available at every moment of the day for a particular user, regardless of if that user possesses a permit or pays a fee for parking.

For all commercial land uses, parking is assumed to be 100% unreserved and available to be shared throughout the site if/when excess parking capacity allows.

For residential uses, Walker has assumed that 100% of parking for town home units is reserved, and therefore unavailable to be shared at any time. For the remaining multi-family dwelling units, Walker has assumed that about 1.28 spaces per unit would be reserved, with the remainder going into a shared pool where, during business hours and/or peak times for other uses, such spaces may be available for use by non-residents or resident visitors.

Note that during off-peak or overnight hours, such spaces would be nearly guaranteed to be available for use by residents, as parking demand needs for other uses would decrease such that there would not be a need for those spaces during those times. Such spaces could even, optionally, be signed as "for resident parking only" during off-peak hours for other uses.

HOTEL

For purposes of this model, the Client has confirmed that the hotel would be more business-orientated than leisure-orientated in nature. For any ancillary communal uses programmed within the hotel, such as a rooftop bar and fitness center, Walker has assumed that such uses would be for guest use only and would therefore 100% captive (a captivity factor of 0%). As a result, such uses would be assumed to not be responsible for generating any additional parking demand beyond the demand generated by hotel guests.

CONFERENCE SPACE

A previously envisioned banquet hall or event space has, as of this writing, evolved into more mainstream hotel conference space adjoining the planned hotel. As such, Walker assumed that hotel guests would be the primary user group, and therefore most parking demand associated with the conference space would be captive in nature (hotel guests already parked for lodging purposes).

RESIDENTIAL

Apartment dwelling units were assumed to be for-rent units for purposes of this model. Town home units were assumed to be to-own units for purposes of this model.

Note that these assumptions were made in order to calculate mode split only based on user profiles for the different types of housing and should NOT be construed to indicate that town home units are intended to actually be provided or sold as condominium (to-own) units.

OFFICE

General and medical office space were modeled separately for purposes of this model.

MARKET & SUPERMARKET

As of June 26, 2025, there is both a planned small market as well as a larger “super” market. From a parking demand modeling perspective, both of these uses fall under Walker’s Shared Parking Model’s “Supermarket/Grocery” use.

Therefore, the uses were combined and modeled as a single “Market” use.

LAND USES NOT INCLUDED IN SHARED PARKING MODEL

While Walker’s Shared Parking Model, discussed in further detail below, incorporates more than 45 different land uses, not every possible unique use is provided. For such uses, the use needs to be manually added to the model using custom base parking demand ratios if there is no existing provided use that is a close-enough match. For the Brickyard, the unique land uses were the food hall and the planned community rec center.

SPORTS DEVELOPMENT CENTER

The Castle Rock Sports Center is planned to be a sports tournament center for swim and other athletic events, though the facility will also be open to use by the general public throughout a typical week. The facility will tentatively incorporate:

- A large field house that can accommodate up to 4 high school basketball courts, 8 elementary school basketball courts, 12 pickleball courts, or 4 volleyball courts at any one time.
- A secondary gymnasium that can accommodate up to 1 high school basketball court, 2 middle school basketball courts, or 1 volleyball court at any one time.
- An 11-lane competition-rated swimming pool.
- 3 smaller lane/warm-up pools.
- A community events hall
- Fitness classrooms
- Open cardio and weights
- An indoor track

A detailed usage analysis was conducted for the proposed Castle Rock Sports Development Center by another consultant, Barker Rinker Seacat ("BRS"). In this analysis, called "Parking Calculator by Court and Aquatics Use," BRS evaluated several use and tournament scenarios sorted by typical weekday, typical weekend, and tournament weekend. The peak number of users per scenario was sorted into players, officials/coaches, spectators, and "waiting." For most scenarios, BRS assumed approximately 3 persons per vehicle.

Out a number of scenarios, it was determined that the "Elementary Tournament Only" scenario represented the highest projected number of users that would simultaneously occur. In this scenario, the highest level of concurrent activity was assumed **excluding** scenarios where swim meets would occur simultaneously with other types of tournaments or meets for other sports or activities, and therefore, 3 persons per vehicle was assumed.

This is based on a stated assumption provided to Walker by the Client that, per the operational agreement or framework under which the center will operate, swim meets/tournaments will not be scheduled simultaneously with other types of tournaments or meets.

Figure 8 below shows the numbers of users/persons expected at peak times by user type and by day of week/activity scenario, as provided to Walker by the Client. Note that, in the table below, Walker has summed the "players," "spectators," and "waiting" groups into one group called "all others." Also, Walker has performed calculations of the associated parking ratios, per 1,000 square feet, for each user/person and day of week/activity combination shown, based on projected user/person figures.

Figure 8: Projected Sports Center Peak Number of Users by User Group and Day of Week and Associated Parking Ratios

Day of Week / Activity Scenario	Users			Parking Need (Assuming Average of 3 Occupants per Vehicle)			Calculated Parking Ratio		
	Employees	All Others	Total	Employees	All Others	Total	Employees	All Others	Total
Typical Weekday	32	589	621	11	196	207	0.07	1.35	1.43
Typical Weekend	32	1,308	1,340	11	436	447	0.07	3.01	3.08

Source: Baker Rinker Seacat, Walker Consultants

It is Walker's understanding that this study, and the associated needed parking supply figures determined, have been studied and accepted by the Town Parks & Recreation Department. Furthermore, it is Walker's understanding that the Town has approved a parking supply for the Sports Development Center in order to serve peak projected needs of 447 spaces, equal to the "typical weekend" scenario described above.

As a result, Walker has assumed and used the associated parking ratios calculated based on those figures in this model, with a peak need of 207 spaces occurring during weekdays and 447 spaces occurring during weekends during expected Sports Center peak activity times.

This means that base ratios for employees and "customers" (i.e., all other users per BRS's analysis) were calculated that would result in adjusted project ratios equal to the calculated parking ratios shown in **Figure 8** above for the peak weekday and peak weekend, respectively.

Walker has assumed, based on information provided by the Client pertaining to the Town Parks and recreation Center's approved supply numbers, that peak activity levels for the Sports Development Center would occur during the early evening on weekdays and during the late morning/early afternoon on weekends.

BOWLING ALLEY

As of this writing, the Client is in negotiations to bring a bowling center to the Brickyard development. The center is currently anticipated to consist of about 60,000 square feet and will contain up to 62 bowling lanes.

Current plans call for the center to be a second location for the Arapahoe Bowling Center, which is an existing bowling center located in Greenwood Village. The center functions primarily as a "traditional" bowling alley, similar in context to facilities such as AMF Bowling, and hosts significant league and tournament activity in addition to casual bowling, including "late night" bowling on Friday and Saturday evenings for casual bowlers.

The facility may serve casual food, such as nachos and pizza, as well as beer, for consumption by bowlers during their bowling sessions. However, it is not anticipated that the facility will have "standalone" food & beverage space; any food and beverage activity will be ancillary to the bowling use.

Walker's Shared Parking Model does not contain the specific land use of "Bowling Alley." However, the use of "Bowling Alley" is provided as a use in the Institute of Transportation Engineers (ITE) Fifth Edition of *Parking Generation*. The PGM states that average peak parking demand for a bowling alley on a weekday in a General Urban/Suburban context is about 4.39 spaces per bowling lane, with weekday peak demand occurring between 6 and 8 PM. Weekend ratios are not provided.

Using the ITE weekday peak demand ratio provided, which uses the number of lanes as its calculation unit, Walker converted the base ratio into terms of spaces per 1,000 square feet for inclusion in its parking model. Based on 62 lanes and 60,000 square feet, the equivalent weekday total base ratio is 4.54 spaces per 1,000 square feet.

Walker then created a weekend base ratio (4.74 spaces per 1,000 square feet) by applying a scaling factor derived from known base ratio differences between the weekday and weekend for similar uses that are included in Walker's SPM, such as "Adult Active Entertainment." "Adult Active Entertainment" is a use that typically includes bowling but also may include other "fun" activities such as laser tag or arcades, along with significant

food & beverage use(s). The use is intended to serve all ages, though it is geared towards teens and adults. Dave & Buster's is an example of such a use. Total base ratios were then separated into customer and employee components also based on the Adult Active Entertainment use's employee ratio relative to its customer ratio.

Finally, Walker derived a custom set of time-of-day adjustment factors based on a combination of factors provided for the weekday in the ITE *PGM*, factors specified for the Adult Active Entertainment use in Walker's SPM for weekdays and weekends, as well as based on known operating hours and scheduled league and tournament play, as provided on the website for the existing Greenwood Village facility, which would be expected to carry over/be similar to the new proposed facility in the Brickyard.

MODE SPLIT (DRIVING RATIO) ADJUSTMENTS

Before running our calculations, Walker adjusted default assumptions for transportation mode split. By default, a driving ratio of between 80% to 100% is used for typical development in the western United States, with 100% representing a scenario where everyone drives vehicles, and no-one uses transit, walks, or bikes. A lower range of ratios may be used for development in urban settings or land use contexts such as this development.

Typically, Walker consults various pertinent United States Census data pertaining to mode split for the census tract in which the proposed development is located in order to make tailored driving ratio adjustments.

RESIDENTIAL MODE SPLIT

For residents, adjustments are based on the latest available vehicle availability data as shown in US Census Table B25044 – Tenure by Vehicles Available. The Census data in Table B25044 distinguishes between owners and renters. Walker used renter data for all units proposed for this project.

Figure 9 shows vehicle availability data for the renters within all Census tracts inside the Town of Castle Rock. Note that, because for this study Walker is trying to account for the actual number of vehicles, the figures for households with two or more vehicles have been appropriately weighted to determine the respective number of vehicles for each household type by number of vehicles available.

Figure 9: Tenure by Vehicles Available (Renters)

Number of Vehicles Available for Renting-Only Households (All Unit Sizes/Types)	Number of Households	Percentage of Households	Number of Households (Weighted by Number of Vehicles)	Percentage of Households (Weighted by Number of Vehicles)
No Vehicle	513	9.0%	513	5.3%
1 Vehicle	2,369	41.5%	2,369	24%
2 Vehicles	1,803	31.6%	3,606	37%
3 Vehicles	890	15.6%	2,670	28%
4 Vehicles	128	2.2%	512	5%
5 or More	0	0.0%	0	0%
Total	**5,703**	**100%**	**9,670**	**100%**

Source: US Census

According to the above data, there is a ratio of about 1.70 vehicles per renter household overall. Renter households with no vehicle represented about 9% of the total number of households in the Town. However, after weighing appropriately to account for multiple vehicles for households with more than one vehicle available, that decreases to about 5%. As a result, a drive ratio adjustment of 5% was applied for renter residents. The drive ratio was therefore assumed to be 95% for such households. This was the adjustment applied for all the proposed rental units.

Figure 10 shows vehicle availability data for the owners within all Census tracts inside the Town of Castle Rock. Note that, because for this study Walker is trying to account for the actual number of vehicles, the figures for households with two or more vehicles have been appropriately weighted to determine the respective number of vehicles for each household type by number of vehicles available.

Figure 10: Tenure by Vehicles Available (Owners)

Number of Vehicles Available for Owner-Only Households (All Unit Sizes/Types)	Number of Households	Percentage of Households	Number of Households (Weighted by Number of Vehicles)	Percentage of Households (Weighted by Number of Vehicles)
No Vehicle	0	0.0%	0	0.0%
1 Vehicle	3,770	17.5%	3,770	8.0%
2 Vehicles	11,499	53.4%	22,998	48.5%
3 Vehicles	4,816	22.4%	14,448	30.5%
4 Vehicles	1,123	5.2%	4,492	9.5%
5 or More	338	1.6%	1,690	3.6%
Total	**21,546**	**100%**	**47,398**	**100%**

Source: US Census

According to the above data, there is a ratio of about 2.20 vehicles per owner household overall. Owner households with no vehicle represented about 0% of the total number of households in the Town. As a result, a drive ratio adjustment of 0% was applied for owner residents. The drive ratio was therefore assumed to be 100% for such households. This was the adjustment applied to the proposed town home units.

Adjustments to mode split made for residential visitors and retail employees are made through analysis of commute flows data provided by the American Association of State Highway and Transportation Officials' (AASHTO) Census Transportation Planning Products Program (CTPP). Walker may then make further adjustments as needed based on other factors or exceptions that are unique to the site.

RESIDENT VISITOR AND EMPLOYEE MODE SPLIT

Figure 11 shows mode split assumed for retail employees, office employees, and residential visitors, as derived through CTPP data using Douglas County Census Tract 145.04 as the destination point. Note that this Census tract represents downtown Castle Rock and its immediate surrounding neighborhoods east of the 25 Freeway. The tract where the development is located, Douglas County Census tract 144.03, is mostly rural in nature and is less representative of the proposed development than tract 145.04 in Walker's opinion. Note that work-from-home/telecommuting trips have been excluded and subtracted out from the total. All of metro Denver was used as the restaurant employee and residential visitor "catchment base."

Figure 11: Mode Split for Employees and Residential Visitors

Statistic	Drove Alone	Carpool	Public Transit	Other	Total
Number of Trips	2,077	270	0	120	2,467
Percentage of Total	84%	11%	0%	5%	100%

Source: CTPP, Walker Consultants

According to the CTPP, 95% of residents within metro Denver drive or carpool (84% + 11%) to Douglas County Census tract 145.04, while the remainder use other means of transportation. As a result of this, Walker has assumed a driving ratio of 95% for all employees and residential visitors.

COMMERCIAL & CIVIC PATRON/VISITOR MODE SPLIT

Figure 12 shows mode split assumed for commercial and civic patrons/visitors, as derived through CTPP data using Douglas County Census Tract 145.04 as the destination point. To account for the likely smaller "catchment base" from which the commercial businesses and civic uses would be likely to draw patrons, only tracts within or encompassing the Town of Castle Rock were included.

Figure 12: Mode Split for Commercial & Civic Patrons & Visitors

Statistic	Drove Alone	Carpool	Public Transit	Other	Total
Number of Trips	734	100	0	110	944
Percentage of Total	78%	11%	0%	12%	100%

Source: CTPP, Walker Consultants

According to the CTPP, 89% of residents approximately within the Town drive or carpool to Douglas County Census Tract 145.04, while the remainder use other means of transportation. As a result of this, Walker has assumed a driving ratio of 89% (78% + 11%) for non-captive commercial and civic patrons.

HOTEL & CONFERENCE SPACE MODE SPLIT

For the business hotel, default model values of 59% during weekdays and 69% during weekends were used. For the conference space, for non-captive hotel conference attendees, default model values of 68% during both weekdays and weekends were used.

As of the 3rd Edition of Shared Parking, these mode split adjustments have been determined to be representative, on average, of a typical business-orientated hotel in a suburban location. Compared to the previous edition of the publication, and the associated shared parking model, these represent between a 6% and 8% reduction, almost exclusively due to the notable rise of the use of transportation network companies such as Uber and Lyft by businesses travelers.

According to a publication released in 2018 on the topic, Walker Consultants cited data and analytics performed by travel and expense management service provider Certify that found that, between 2014 and 2017, the usage

of car rentals to get to and from a hotel for business travelers decreased from about 56% to under 30%, while the usage of TNCs increased from less than 10% to over 40%.[3]

SPORTS DEVELOPMENT CENTER MODE SPLIT

Figure 13 shows mode split assumed for Sports Development Center users, as derived through CTPP data using Douglas County Census Tract 145.04 as the destination point. To account for the likely larger and more regional "catchment base" from which these uses would likely draw visitors and tournament participants, all Census tracts within Douglas County were included.

Figure 13: Mode Split for Sports Development Center

Statistic	Drove Alone	Carpool	Public Transit	Other	Total
Number of Trips	1,647	235	0	120	2,002
Percentage of Total	82%	12%	0%	6%	100%

Source: CTPP, Walker Consultants

According to the CTPP, 94% of residents in all of Douglas County drive or carpool to Douglas County Census Tract 145.04, while the remainder use other means of transportation.

However, for reasons unique to this specific use that were described previously, such as the expectation of increased carpooling as well as the fact that many, or even most, carpool vehicles will simply be picking up and dropping off visitors and tournament participants, and not parking at the facility, Walker subtracted the carpool mode split percentage from the driving ratio for the indoor component.

As a result of this, Walker has assumed a driving ratio of 82% for non-captive Sports Development Center users/parkers.

CAPTIVITY (NON-CAPTIVE RATIO) ADJUSTMENTS

Due to the intended mixed-use nature of the development site, Walker would expect to see non-captive ratios below 100% for retail and restaurant uses. This is due to the expectation that residents of the building as well as of surrounding buildings, as well as some nearby employees, would be already parked in the building or parked elsewhere while visiting the building's proposed restaurant and retail uses.

For comparison, a non-captive ratio of 100% would imply that everyone visiting the proposed land use has arrived and parked only for that use.

Based on previous experience with similar developments within mixed-use contexts and featuring ground-floor retail and restaurant, Walker has elected to use the following non-captive ratios for various user groups per land use shown in **Figure 14**.

[3] Walker Consultants. "Ride-Hailing Impacts on Parking." 2018. Accessed on October 24, 2023. https://walkerconsultants.com/wp-content/uploads/2017/12/TNC-Impacts.pdf

Figure 14: Non-Captive Ratios Used in Model

User Group	Non-Captive Ratio (Percentage Who are Not Captive)	
	Customers/Patrons	Employees
All Retail (Including Market & Supermarket)	95%	100%
Restaurant	85%	100%
Hotel	100%	100%
Office & Medical Office	100%	96%
Hotel Conference Space	60%	100%
Sports Development Center & Bowling Alley	95%	100%
All Resident Visitors/Guests	100%	100%
All Residents	100%	100%

Non-captive ratios of 100% are always used for hotel guests, residents and associated residential parking demand, as well as for all employees. Ratios below 100% were used for most site retail, restaurant, and office uses to account for use and trips by on-site residents, as well as simultaneous trips between complimentary non-residential uses, such as trips that were made for shopping but that also involved stops at a coffee shop.

Previously, a non-captive ratio of 90% was used for the planned rec center. This has been increased to 95% to account for the changes in intended specific use for the facility, which Walker assumes will cater less to local residents and more to users from outside the immediate area for sports tournaments.

Walker has assumed typical captive ratios for the planned hotel conference space. Typically, conference space in a non-resort hotel in a suburban, auto-orientated context carries a captive ratio of about 60%. This is also an appropriate captive ratio if the space is also used for local and neighborhood events and activities not necessarily associated with the hotel.

As stated previously, other ancillary hotel uses, such as the planned fitness center/pool, will be limited for guest use only. Walker anticipates that there would be no additional parking demand associated with those ancillary uses and therefore would have an effective captive ratio of 0%.

A 96% captive ratio was used for typical office space employees, as Walker assumed that a small number may be Brickyard residents or would otherwise already be parked on-site.

For the bowling alley, as stated previously, it is expected that food & beverage services would be limited and would be fully ancillary to the bowling use and therefore would be effectively fully captive (non-captive ratio of 0%). Also, any such use's component square footage is already included in the total modeled square footage of the bowling facility and associated base parking ratios.

PARKING NEEDS ACCORDING TO SHARED PARKING MODEL

The following series of figures illustrate Walker's adjusted projections for parking needs for the proposed development that consider all the adjustments and assumptions described above. Peak parking needs are shown sorted by weekday and weekend.

Note that, in these models, actual residential parking needs have been projected and are shown. Therefore, residential parking figures shown below should be interpreted to represent spaces intended to be reserved at all times, even during non-peak hours when they are not projected to be fully utilized or needed.

A NOTE ABOUT TOWN-RESERVED RIGHT TO RESERVE PARKING DURING CERTAIN EVENTS

The Town has indicated to the Client and to Walker that it will reserve the right to prohibit Sports Development Center spaces for shared use by other component land uses during certain Town events yet to be determined.

In Walker's opinion, even the reservation of such spaces during such events for the exclusive use of Sports Development Center users/event attendees would likely not result in significantly increased parking needs above and beyond what has been projected herein.

This is because Sports Development Center parking demand is already by far the most significant driver of systemwide demand during the project systemwide peak. Accepted peak demand for the Sports Development Center on the weekend already considers and factors in tournaments.

Also, there would likely be an even higher captive adjustment for commercial uses than what has been modeled herein during such events, as an even greater share of non-commercial parking demand would likely be associated with captive Sports Development Center users and visitors than on a typical peak day.

WEEKDAY NEEDS AT BUILDOUT

Optimized parking needs by land use for the projected peak weekday at buildout are shown in **Figure 15.**

Figure 15: Optimized Weekday Parking Needs by Land Use at Buildout

Land Use	Sub Category	Intensity	per Unit	Base Parking Ratio	% Driving	% Non-Captive	Peak Hour Presence	Peak Month Presence	Peak Hour Need
Retail	Customers	7,000	sf GLA	2.90	89%	95%	90%	100%	16
	Employees			0.70	95%	100%	100%	100%	5
								Sub-Total (Retail)	**21**
Hotel	Guests	123	keys	1.00	59%	100%	75%	60%	33
	Employees			0.15	100%	100%	40%	60%	4
								Sub-Total (Hotel)	**37**
Conference Space	Attendees	6,000	sf GLA	20.24	68%	60%	100%	100%	50
	Employees			1.59	100%	100%	60%	100%	6
								Sub-Total (Conference Space)	**56**
Residential (Apartments)	Residents	384	units	1.31	95%	100%	100%	100%	480
	Visitors			0.10	95%	100%	60%	100%	22
								Sub-Total (Residential Apartments)	**502**
Residential (Townhomes)	Residents	0	units	0.00	100%	100%	100%	100%	0
	Visitors			0.10	95%	100%	60%	100%	0
								Sub-Total (Residential Townhomes)	**0**
Sports Development Center	Customers	145,000	sf GFA	1.74	82%	95%	100%	100%	197
	Employees			0.07	95%	100%	100%	100%	10
								Sub-Total (Sports Development Center)	**207**
Market	Customers	16,500	sf GLA	4.00	89%	91%	100%	100%	54
	Employees			0.75	95%	98%	80%	100%	10
								Sub-Total (Market)	**64**
Office	Visitors	25,000	sf GFA	0.20	100%	100%	5%	100%	0
	Employees			2.60	95%	96%	25%	100%	15
								Sub-Total (Co Work Space)	**15**
Co-Work Space	Visitors		sf GFA	0.20	100%	100%	5%	100%	0
	Employees			2.60	95%	96%	25%	100%	0
								Sub-Total (Office)	**0**
Medical Office	Patients	31,000	sf GFA	3.00	100%	100%	67%	100%	62
	Employees			1.60	95%	96%	67%	100%	31
								Sub-Total (Medical Office)	**93**
Restaurant (Fine / Casual Dining)	Visitors	22,900	sf GLA	13.25	89%	85%	95%	100%	218
	Employees			2.25	95%	100%	100%	100%	49
								Sub-Total (Restaurant Fine Dining)	**267**
Restaurant (Fast Food)	Visitors		sf GLA	12.40	89%	85%	85%	96%	0
	Employees			2.00	95%	100%	90%	100%	0
								Sub-Total (Restaurant Fast Casual)	**0**
Bowling Alley	Visitors	60,000	sf GLA	4.34	89%	95%	87%	100%	192
	Employees			0.20	95%	100%	100%	100%	11
								Sub-Total (Bowling Alley)	**186**
								Total (Commercial)	**85**
								Total (Restaurant)	**267**
								Total (Hotel)	**93**
								Total (Sports Development Center)	**207**
								Total (Residential)	**502**
								Total (Office)	**108**
								Total (Bowling Alley)	**203**
								Total (All) (Rounded)	**1,466**

For the weekday peak, projected to occur at 6 PM in December, Walker projects a peak total parking need for the site of 1,466 spaces at buildout.

Figure 16 below shows how parking needs vary by hour between 6 AM and midnight during the peak weekday. The AM and PM peaks are shown respectively in purple and yellow boxes.

Figure 16: Parking Supply and Weekday Parking Demand by Hour at Buildout

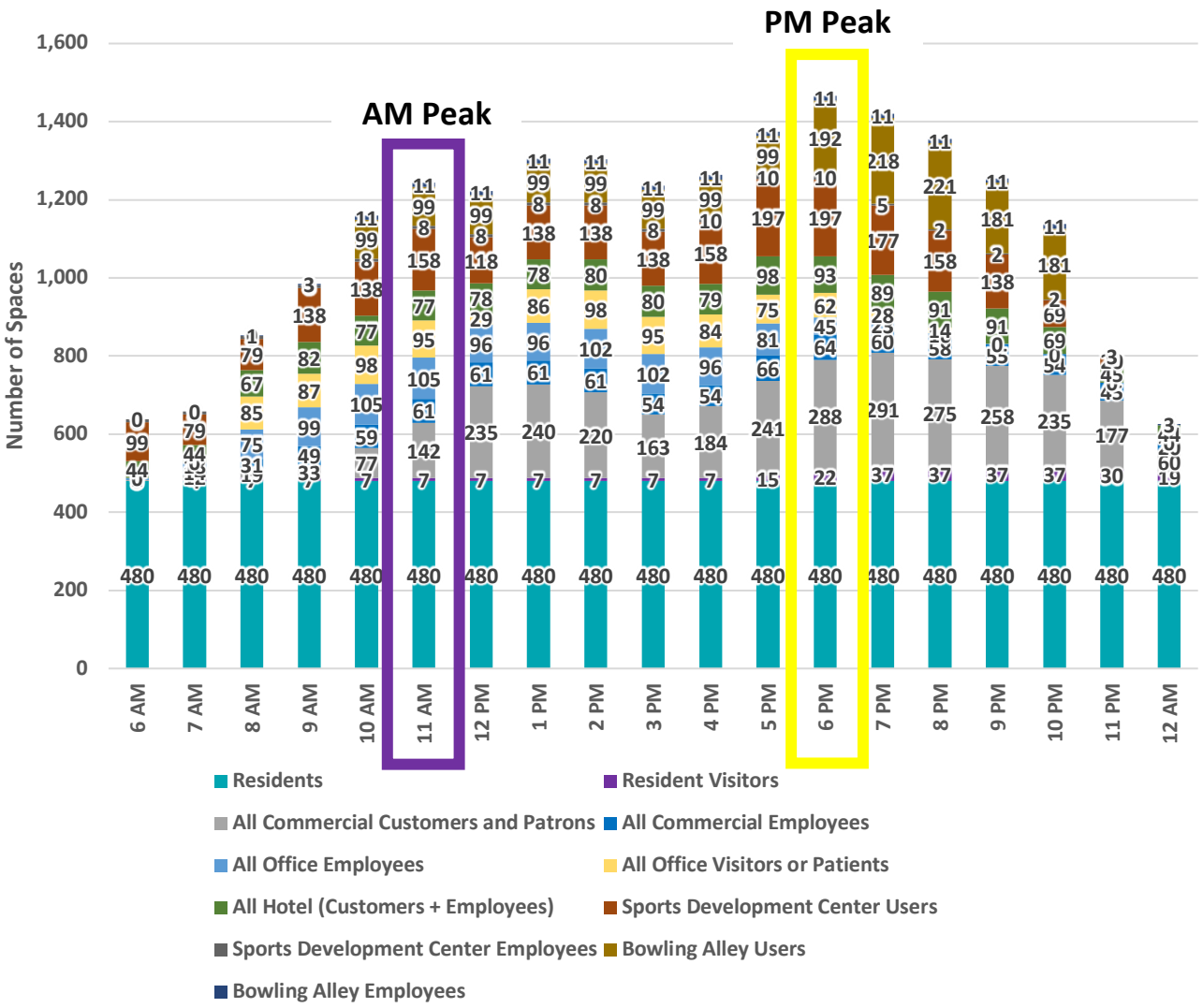


Figure 17 below compares base parking ratios with adjusted base ratios and then compares adjusted base ratios with peak hour needs ratios during the projected weekday peak.

Adjusted base ratios are the base ratios with adjustments for captivity and mode split applied. Peak hour ratios take the adjusted base ratios and adjust them based on the systemwide peak month and time of day determined by the model. Peak hour ratios, therefore, represent parking needs for a particular use as they occur during the systemwide peak time of day during the peak month.

Associated parking needs, in terms of number of spaces, are shown respectively for each ratio type.

Figure 17: Base and Adjusted Ratio Comparison and Associated Parking Needs (Weekday)

Land Use	Sub Category	Base Parking Ratio	Adjusted Base Ratio	Peak Hour Need Ratio	Unadjusted Peak Need	Adjusted Peak Need	Peak Hour Need
Retail	Customers	2.90	2.45	2.29	20	17	16
	Employees	0.70	0.67	0.71	5	5	5
	Sub-Total (Retail)	**3.60**	**3.12**	**3.00**	**25**	**22**	**21**
Hotel	Guests	1.00	0.59	0.27	123	73	33
	Employees	0.15	0.15	0.03	18	18	4
	Sub-Total (Hotel)	**1.15**	**0.74**	**0.30**	**141**	**92**	**37**
Conference Space	Attendees	20.24	8.26	8.33	121	50	50
	Employees	1.51	1.51	1.00	9	9	6
	Sub-Total (Conference Space)	**21.76**	**9.77**	**9.33**	**131**	**59**	**56**
Residential (Apartments)	Residents	1.31	1.25	1.25	505	480	480
	Visitors	0.10	0.10	0.06	38	36	22
	Sub-Total (Residential Apartments)	**1.41**	**1.34**	**1.31**	**543**	**516**	**502**
Residential (Townhomes)	Residents	0.00	0.00	0.00	0	0	0
	Visitors	0.10	0.10	0.00	0	0	0
	Sub-Total (Residential Townhomes)	**0.10**	**0.10**	**0.00**	**0**	**0**	**0**
Sports Development Center	Customers	1.74	1.36	1.36	252	197	197
	Employees	0.07	0.07	0.07	11	10	10
	Sub-Total (Sports Development Center)	**1.81**	**1.43**	**1.43**	**263**	**207**	**207**
Market	Customers	4.00	3.25	3.27	66	54	54
	Employees	0.75	0.70	0.61	12	12	10
	Sub-Total (Market)	**4.75**	**3.95**	**3.88**	**78**	**65**	**64**
Office	Visitors	0.20	0.20	0.00	5	5	0
	Employees	2.60	2.37	0.60	65	59	15
	Sub-Total (Office)	**2.80**	**2.57**	0.60	**70**	**64**	**15**
Co-Work Space	Visitors	0.20	0.20	0.00	0	0	0
	Employees	2.60	2.37	0.00	0	0	0
	Sub-Total (Co Work Space)	**2.80**	**2.57**	**0.00**	**0**	**0**	**0**
Medical Office	Patients	**3.00**	**2.99**	2.00	93	93	62
	Employees	**1.60**	**1.46**	1.00	50	45	31
	Sub-Total (Medical Office)	**4.60**	**4.45**	**3.00**	**143**	**138**	**93**
Restaurant (Fine / Casual Dining)	Visitors	13.25	10.02	9.52	303	230	218
	Employees	2.25	2.14	2.14	52	49	49
	Sub-Total (Restaurant Fine Dining)	**15.50**	**12.16**	**11.66**	**355**	**278**	**267**
Restaurant (Fast Food)	Visitors	12.40	9.38	0.00	0	0	0
	Employees	2.00	1.90	0.00	0	0	0
	Sub-Total (Restaurant Fast Casual)	**14.40**	**11.28**	**0.00**	**0**	**0**	**0**
Bowling Alley	Visitors	4.34	3.67	3.20	260	220	192
	Employees	0.20	0.19	0.18	12	11	11
	Sub-Total (Bowling Alley)	**4.54**	**3.86**	**3.38**	**272**	**231**	**203**
Total (Commercial)		**8.35**	**7.06**	**6.88**	**104**	**87**	**85**
Total (Restaurant)		**29.90**	**23.44**	**11.66**	**355**	**278**	**267**
Total (Hotel)		**22.91**	**10.52**	**9.63**	**272**	**150**	**93**
Total (Sports Development Center)		**1.81**	**1.43**	**1.43**	**263**	**207**	**207**
Total (Residential)		**1.51**	**1.44**	**1.31**	**543**	**516**	**502**
Total (Office)		**10.20**	**9.59**	**3.60**	**213**	**202**	**108**
Total (Bowling Alley)		**4.54**	**3.86**	**3.38**	**272**	**231**	**203**
Total (All) (Rounded)		**79.22**	**57.33**	**37.89**	**2,021**	**1,672**	**1,466**

WEEKEND NEEDS AT BUILDOUT

Optimized parking needs by land use for the projected peak weekend at buildout are shown in **Figure 18.**

Figure 18: Optimized Weekend Parking Needs by Land Use at Buildout

Land Use	Sub Category	Intensity	per Unit	Base Parking Ratio	% Driving	% Non-Captive	Peak Hour Presence	Peak Month Presence	Peak Hour Need
Retail	Customers	7,000	sf GLA	3.20	89%	95%	100%	100%	19
	Employees			0.80	95%	100%	100%	100%	6
								Sub-Total (Retail)	**25**
Hotel	Guests	123	keys	1.00	69%	100%	55%	60%	28
	Employees			0.15	100%	100%	100%	60%	11
								Sub-Total (Hotel)	**39**
Conference Space	Attendees	6,000	sf GLA	10.11	68%	60%	65%	100%	16
	Employees			1.51	100%	100%	100%	100%	10
								Sub-Total (Conference Space)	**26**
Residential (Apartments)	Residents	384	units	1.31	95%	100%	100%	100%	480
	Visitors			0.15	95%	100%	20%	100%	11
								Sub-Total (Residential Apartments)	**491**
Residential (Townhomes)	Residents	0	units	0.00	100%	100%	100%	100%	0
	Visitors			0.15	95%	100%	20%	100%	0
								Sub-Total (Residential Townhomes)	**0**
Sports Development Center	Customers	145,000	sf GFA	3.87	82%	95%	100%	100%	437
	Employees			0.07	95%	100%	100%	100%	10
								Sub-Total (Sports Development Center)	**447**
Market	Customers	16,500	sf GLA	4.00	89%	95%	100%	100%	56
	Employees			0.75	95%	98%	100%	100%	12
								Sub-Total (Market)	**68**
Office	Visitors	25,000	sf GFA	0.02	100%	100%	80%	100%	1
	Employees			0.26	95%	96%	80%	100%	5
								Sub-Total (Co Work Space)	**6**
Co-Work Space	Visitors		sf GFA	0.02	100%	100%	80%	100%	0
	Employees			0.26	95%	96%	80%	100%	0
								Sub-Total (Office)	**0**
Medical Office	Patients	31,000	sf GFA	0.00	100%	100%	0%	100%	0
	Employees			0.00	95%	96%	0%	100%	0
								Sub-Total (Medical Office)	**0**
Restaurant (Fine / Casual Dining)	Visitors	22,900	sf GLA	15.25	89%	85%	55%	100%	146
	Employees			2.50	95%	100%	75%	100%	41
								Sub-Total (Restaurant Fine Dining)	**187**
Restaurant (Fast Food)	Visitors		sf GLA	12.70	0.89	0.85	100%	96%	0
	Employees			2.00	0.95	1.00	100%	100%	0
								Sub-Total (Restaurant Fast Casual)	**0**
Bowling Alley	Visitors	60,000	sf GLA	4.74	0.89	0.95	90%	100%	217
	Employees			0.25	0.95	1.00	100%	100%	14
								Sub-Total (Bowling Alley)	**231**
								Total (Commercial)	**93**
								Total (Restaurant)	**187**
								Total (Hotel)	**65**
								Total (Sports Development Center)	**447**
								Total (Residential)	**491**
								Total (Office)	**6**
								Total (Bowling Alley)	**231**
								Total (All) (Rounded)	**1,521**

For the weekend peak, projected to occur at 1 PM in December, Walker projects a peak total parking need for the site of 1,521 spaces at buildout.

Figure 19 below shows how parking needs vary by hour between 6 AM and midnight during the peak weekend. The AM and PM peaks are shown respectively in purple and yellow boxes.

Figure 19: Parking Supply and Weekend Parking Demand by Hour at Buildout

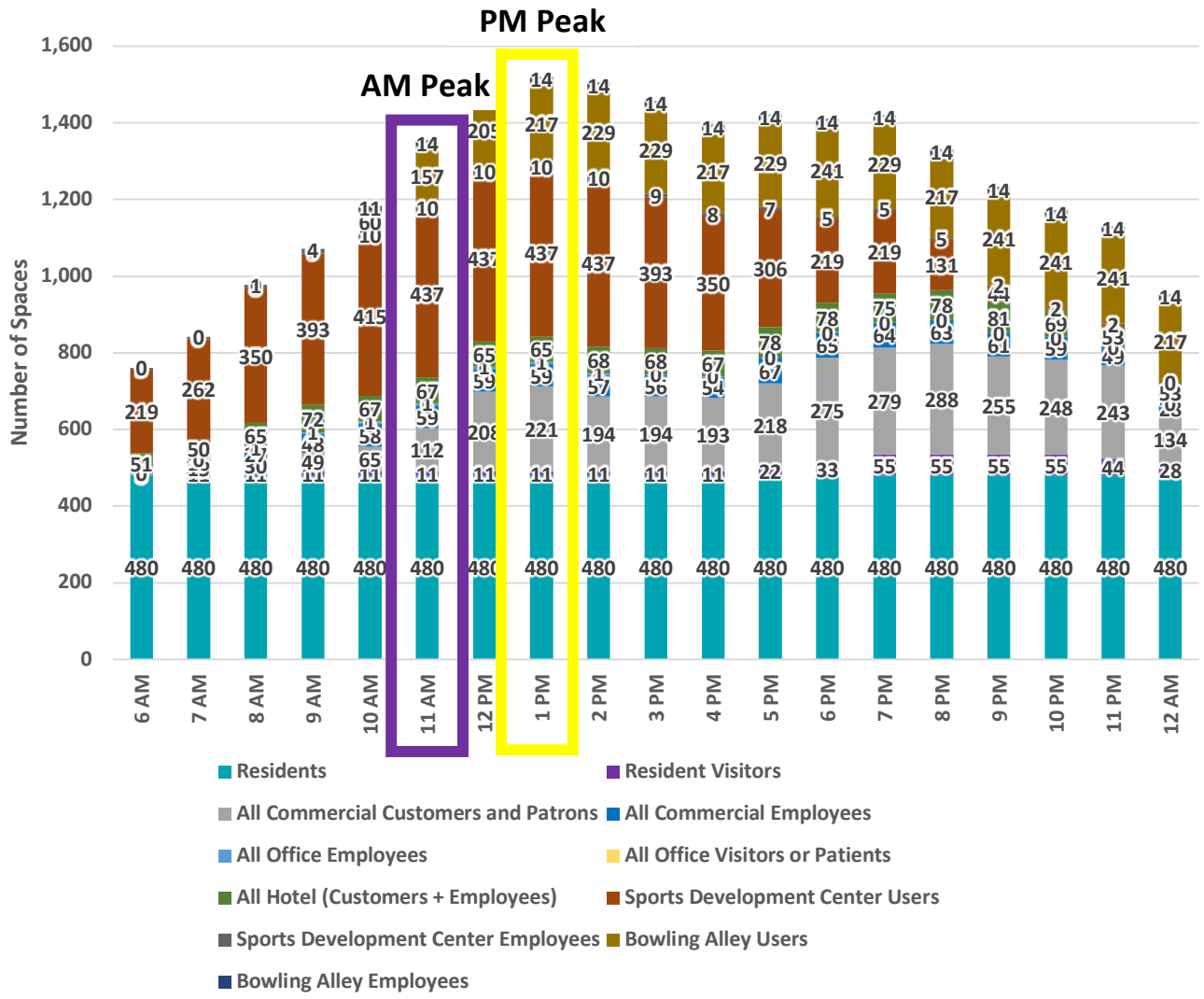


Figure 20 below compares base parking ratios with adjusted base ratios and then compares adjusted base ratios with peak hour needs ratios during the projected weekend peak.

Adjusted base ratios are the base ratios with adjustments for captivity and mode split applied. Peak hour ratios take the adjusted base ratios and adjust them based on the systemwide peak month and time of day determined by the model. Peak hour ratios, therefore, represent parking needs for a particular use as they occur during the systemwide peak time of day during the peak month.

Associated parking needs, in terms of number of spaces, are shown respectively for each ratio type.

Figure 20: Base and Adjusted Ratio Comparison and Associated Parking Needs (Weekend)

Land Use	Sub Category	Base Parking Ratio	Adjusted Base Ratio	Peak Hour Need Ratio	Unadjusted Peak Need	Adjusted Peak Need	Peak Hour Need
Retail	Customers	3.20	2.71	2.71	22	19	19
	Employees	0.80	0.76	0.86	6	5	6
	Sub-Total (Retail)	**4.00**	**3.47**	**3.57**	**28**	**24**	**25**
Hotel	Guests	1.00	0.69	0.23	123	85	28
	Employees	0.15	0.15	0.09	18	18	11
	Sub-Total (Hotel)	**1.15**	**0.84**	**0.32**	**141**	**104**	**39**
Conference Space	Attendees	10.11	4.12	2.67	61	25	16
	Employees	1.51	1.51	1.67	9	9	10
	Sub-Total (Conference Space)	**11.62**	**5.64**	**4.33**	**70**	**34**	**26**
Residential (Apartments)	Residents	1.31	1.25	1.25	505	480	480
	Visitors	0.15	0.14	0.03	58	55	11
	Sub-Total (Residential Apartments)	**1.46**	**1.39**	**1.28**	**562**	**534**	**491**
Residential (Townhomes)	Residents	0.00	0.00	0.00	0	0	0
	Visitors	0.15	0.14	0.00	0	0	0
	Sub-Total (Residential Townhomes)	**0.15**	**0.14**	**0.00**	**0**	**0**	**0**
Sports Development Center	Customers	3.87	3.01	3.01	561	437	437
	Employees	0.07	0.07	0.07	11	10	10
	Sub-Total (Sports Development Center)	**3.94**	**3.08**	**3.08**	**572**	**447**	**447**
Market	Customers	4.00	3.39	3.39	66	56	56
	Employees	0.75	0.70	0.73	12	12	12
	Sub-Total (Market)	**4.75**	**4.09**	**4.12**	**78**	**67**	**68**
Office	Visitors	0.02	0.02	0.04	1	1	1
	Employees	0.26	0.24	0.20	7	6	5
	Sub-Total (Office)	**0.28**	**0.26**	0.24	**7**	**6**	**6**
Co-Work Space	Visitors	0.02	0.02	0.00	0	0	0
	Employees	0.26	0.24	0.00	0	0	0
	Sub-Total (Co Work Space)	**0.28**	**0.26**	**0.00**	**0**	**0**	**0**
Medical Office	Patients	**0.00**	**0.00**	0.00	0	0	0
	Employees	**0.00**	**0.00**	0.00	0	0	0
	Sub-Total (Medical Office)	**0.00**	**0.00**	**0.00**	**0**	**0**	**0**
Restaurant (Fine / Casual Dining)	Visitors	15.25	11.54	6.38	349	264	146
	Employees	2.50	2.38	1.79	57	54	41
	Sub-Total (Restaurant Fine Dining)	**17.75**	**13.91**	**8.17**	**406**	**319**	**187**
Restaurant (Fast Food)	Visitors	4.74	9.61	0.00	0	0	0
	Employees	0.25	1.90	0.00	0	0	0
	Sub-Total (Restaurant Fast Casual)	**4.99**	**11.51**	**0.00**	**0**	**0**	**0**
Bowling Alley	Visitors	4.74	4.01	3.62	284	240	217
	Employees	0.25	0.24	0.23	15	14	14
	Sub-Total (Bowling Alley)	**4.99**	**4.25**	**3.85**	**299**	**255**	**231**
Total (Commercial)		**8.75**	**7.55**	**7.69**	**106**	**92**	**93**
Total (Restaurant)		**22.74**	**25.42**	**8.17**	**406**	**319**	**187**
Total (Hotel)		**12.77**	**6.48**	**4.65**	**211**	**138**	**65**
Total (Sports Development Center)		**3.94**	**3.08**	**3.08**	**572**	**447**	**447**
Total (Residential)		**1.61**	**1.53**	**1.28**	**562**	**534**	**491**
Total (Office)		**0.56**	**0.51**	**0.24**	**7**	**6**	**6**
Total (Bowling Alley)		**4.99**	**4.25**	**3.85**	**299**	**255**	**231**
Total (All) (Rounded)		**55.37**	**48.83**	**28.96**	**2,164**	**1,790**	**1,521**

ALLOCATING PARKING TO SERVE NEEDS (SINGLE USE VERSUS JOINT USE)

From the models above, it is possible to understand the peak parking needs during the projected systemwide peak. The total systemwide peak for all uses of 1,560 spaces, occurring at around 1 PM on a weekend in December, is the physical number of parking spaces that will satisfy all parking needs for all uses, as projected, during the peak time and all other typical times and days.

The shared parking efficiencies that are possible that were "baked into" and considered in projecting the actual number of physical parking spaces considered to be necessary to adequately accommodate all parking demand at a given time have the effect of increasing the "maximum available" capacity that is possible for the parking system throughout the day by dynamically reallocating a certain percentage of parking spaces to different uses throughout the day as needed and as excess capacity allows.

While the projected systemwide peak time, day, and month is ultimately used to determine the maximum number of spaces needed for single land uses and user groups, there is a constant "give and take" of spaces that become available for use by other land uses as the day progresses, assuming such spaces are not explicitly reserved 24/7 for any specific user group or use. This constant, continuous "reallocation," or use distribution, is taking place within the same physical parking system and within a given overall total parking supply. For instance, while excess parking capacity within the unreserved residential parking supply may exist and can be used during the day, it may not exist, and cannot potentially be used, during the mid-morning. Meanwhile, the reverse may be the case for unreserved office parking.

As a result, "maximum available" parking supplies and supply ratios that are possible are generated, which will add up to more spaces than actually physically constructed for most land uses in a shared parking context. This means that, while full proposed parking ratios and supplies for individual land uses may not be fully available at all times, they are or will be available when they're needed or potentially needed by those any individual use or group of like uses.

To that end, based on Walker's projected parking needs described above, Walker has calculated a set of ratios for all proposed land uses that are based on the "maximum available" parking supply or capacity possible for each land use during the projected systemwide peak. These figures are composed of two components:

- Spaces that are not available for sharing during the peak time with other uses
- Spaces that are available or potentially available during the peak time for at least one other use.

The spaces that are available or potential available during the peak time or any other time area used to satisfy the needs of other uses and thus can be thought of as going into a "shared pool" during that time and day.

For instance, during the weekday peak, Walker proposes a maximum available supply ratio possible for apartments of 2 spaces per dwelling unit at buildout, or 768 spaces. This ratio has been pre-determined by Town of Castle Rock minimum requirements. However, during the weekday systemwide peak time, Walker projects that only 502 spaces are needed to satisfy resident and resident visitor demand. The remaining spaces, in this case, then would be shared, or be effectively reallocated for use by other land uses that require more parking than they have or may have during that particular hour on weekdays. However, during the overnight period when residential parking demands typically peak, at least 768 spaces would be available for residents and resident visitors.

Therefore, for any given land use, the "build-to" parking supply consists of the number of spaces considered to be available for a respective designated single use at the peak systemwide time that, collectively with all other uses being built, results in the desired or required maximum available ratios and supplies for each use after shared, or joint use of, parking is taken into account. These shared, or joint use, spaces are considered to be available, or potentially available, for other uses at the peak systemwide time.

In most cases, the total maximum available ratio or supply possible is based directly on "adjusted peak needs" provided in the previous sub-section while the number or ratio of spaces that are available for designated uses at peak times is based directly on the "peak hour needs" provided in the previous sub-section. The difference between the two is considered to be the number of spaces or ratio that is available or potentially available for other uses at the peak systemwide time.

Collectively, the number of spaces available or potentially available for other uses at the peak time forms the shared, or joint use, parking pool during that time. This figure and associated ratio would, on net, increase or be expected to increase, during all times outside of the systemwide projected peak.

A NOTE ABOUT APARTMENT, TOWNHOME, AND HOTEL USES

Note that, in some cases, the maximum available supply and supply ratio Walker is targeting has been pre-determined by Town of Castle Rock minimum requirements that exceed peak needs as predicted and projected by the Shared Parking Model. For these uses, the Town has required the Client build to Town minimums.

As a result, for these uses – apartments, townhomes, and hotel rooms, Walker has manually overridden previously-determined projected shared parking model values with the required Town minimum values. Such values are shown in yellow. For these uses, the Town required supply would be made available during known peak hours for those uses.

For all three uses, it Is expected that peak demand hours would occur overnight.

WEEKDAY USE DISTRIBUTION & TOTAL MAXIMUM AVAILABLE SUPPLY POSSIBLE AT BUILDOUT

Figure 21 below shows the combination of spaces that need to be available for designated use at peak times during the typical peak weekday at buildout by specific single land uses and spaces that are available or potentially available for other uses at the peak time required in order to achieve the proposed maximum potential supply ratios and supplies possible for each use.

Figure 21: Maximum Potentially Available Supply Possible During Systemwide Peak at Buildout (Weekday)

Land Use	Sub Category	Proposed Ratios			Proposed Parking Supplies		
		Build-To	As Part of Shared Pool	Total "Effective" Ratio	Build-To	As Part of Shared Pool	Total "Effective" Supply
Retail	Customers	2.29	0.17	2.45	16	1	17
	Employees	0.71	0.00	0.71	5	0	5
	Sub-Total (Retail)	**3.00**	**0.12**	**3.12**	**21**	**1**	**22**
Hotel	Guests	0.27	0.78	1.05	33	96	129
	Employees	0.03	0.12	0.15	4	14	18
	Sub-Total (Hotel)	**0.30**	**0.90**	**1.20**	**37**	**111**	**148**
Conference Space	Attendees	8.33	-0.07	8.26	50	0	50
	Employees	1.00	0.51	1.51	6	3	9
	Sub-Total (Conference Space)	**9.33**	**0.44**	**9.77**	**56**	**3**	**59**
Residential (Apartments)	Residents	1.25	0.66	1.91	480	252	732
	Visitors	0.06	0.04	0.10	22	14	36
	Sub-Total (Residential Apartments)	**1.31**	**0.69**	**2.00**	**502**	**266**	**768**
Residential (Townhomes)	Residents	0.00	0.00	1.91	0	0	0
	Visitors	0.00	0.10	0.10	0	0	0
	Sub-Total (Residential Townhomes)	**0.00**	**2.00**	**2.00**	**0**	**0**	**0**
Sports Development Center	Customers	1.36	0.00	1.36	197	2	199
	Employees	0.07	0.00	0.07	10	0	10
	Sub-Total (Sports Development Center)	**1.43**	**0.00**	**1.43**	**207**	**2**	**209**
Market	Customers	3.27	-0.02	3.25	54	0	54
	Employees	0.61	0.00	0.61	10	-7	3
	Sub-Total (Market)	**3.88**	**0.00**	**3.88**	**64**	**1**	**65**
Office	Visitors	0.00	0.20	0.20	0	5	5
	Employees	0.60	1.77	2.37	15	44	59
	Sub-Total (Office)	**0.60**	**1.97**	**2.57**	**15**	**49**	**64**
Co-Work Space	Visitors	0.00	0.20	0.20	0	0	0
	Employees	0.00	2.37	2.37	0	0	0
	Sub-Total (Co Work Space)	**0.00**	**2.57**	**2.57**	**0**	**0**	**0**
Medical Office	Patients	**2.00**	**0.99**	**2.99**	**62**	**31**	**93**
	Employees	**1.00**	**0.46**	**1.46**	**31**	**14**	**45**
	Sub-Total (Medical Office)	**3.00**	**1.45**	**4.45**	**93**	**45**	**138**
Restaurant (Fine / Casual Dining)	Visitors	9.52	0.50	10.02	218	12	230
	Employees	2.14	0.00	2.14	49	0	49
	Sub-Total (Restaurant Fine Dining)	**11.66**	**0.50**	**12.16**	**267**	**11**	**278**
Restaurant (Fast Food)	Visitors	0.00	9.38	9.38	0	0	0
	Employees	0.00	1.90	1.90	0	0	0
	Sub-Total (Restaurant Fast Casual)	**0.00**	**11.28**	**11.28**	**0**	**0**	**0**
Bowling Alley	Visitors	3.20	0.47	3.67	192	28	220
	Employees	0.18	0.01	0.19	11	0	11
	Sub-Total (Bowling Alley)	**3.38**	**0.47**	**3.86**	**203**	**28**	**231**
				Total (Commercial)	**85**	**2**	**87**
				Total (Restaurant)	**267**	**11**	**278**
				Total (Hotel)	**93**	**113**	**206**
				Total (Sports Development Center)	**207**	**2**	**209**
				Total (Residential)	**502**	**266**	**768**
				Total (Office)	**108**	**94**	**202**
				Total (Bowling Alley)	**203**	**28**	**231**
				Total (All) (Rounded)	**1,466**	**517**	**1,982**

WEEKEND USE DISTRIBUTION & TOTAL MAXIMUM AVAILABLE SUPPLY POSSIBLE AT BUILDOUT

Figure 22 below shows the combination of spaces that need to be available for designated use at peak times during the typical peak weekend by specific single land uses and spaces that are available or potentially available for other uses at the peak time required in order to achieve the proposed maximum potential supply ratios and supplies possible for each use.

Figure 22: Maximum Potentially Available Supply Possible During Systemwide Peak at Buildout (Weekend)

Land Use	Sub Category	Proposed Ratios			Proposed Parking Supplies		
		Build-To	As Part of Shared Pool	Total "Effective" Ratio	Build-To	As Part of Shared Pool	Total "Effective" Supply
Retail	Customers	2.71	-0.01	2.71	19	0	19
	Employees	0.86	-0.10	0.76	6	-1	5
	Sub-Total (Retail)	**3.57**	**-0.11**	**3.47**	**25**	**-1**	**24**
Hotel	Guests	0.23	0.82	1.05	28	101	129
	Employees	0.09	0.06	0.15	11	7	18
	Sub-Total (Hotel)	**0.32**	**0.88**	**1.20**	**39**	**109**	**148**
Conference Space	Attendees	2.67	0.00	2.67	16	9	25
	Employees	1.67	-0.15	1.51	10	-1	9
	Sub-Total (Conference Space)	**4.33**	**0.00**	**4.33**	**26**	**8**	**34**
Residential (Apartments)	Residents	1.25	0.61	1.86	480	233	713
	Visitors	0.03	0.11	0.14	11	44	55
	Sub-Total (Residential Apartments)	**1.28**	**0.72**	**2.00**	**491**	**277**	**768**
Residential (Townhomes)	Residents	0.00	0.00	1.86	0	0	0
	Visitors	0.00	0.14	0.14	0	0	0
	Sub-Total (Residential Townhomes)	**0.00**	**2.00**	**2.00**	**0**	**0**	**0**
Sports Development Center	Customers	3.01	0.00	3.01	437	0	437
	Employees	0.07	0.00	0.07	10	0	10
	Sub-Total (Sports Development Center)	**3.08**	**0.00**	**3.08**	**447**	**0**	**447**
Market	Customers	3.39	-0.01	3.39	56	0	56
	Employees	0.73	-0.03	0.70	12	0	12
	Sub-Total (Market)	**4.12**	**-0.03**	**4.09**	**68**	**-1**	**67**
Office	Visitors	0.04	-0.02	0.02	1	-1	1
	Employees	0.20	0.04	0.24	5	1	6
	Sub-Total (Office)	**0.24**	**0.02**	**0.26**	**6**	**0**	**6**
Co-Work Space	Visitors	0.00	0.02	0.02	0	0	0
	Employees	0.00	0.24	0.24	0	0	0
	Sub-Total (Co Work Space)	**0.00**	**0.26**	**0.26**	**0**	**0**	**0**
Medical Office	Patients	**0.00**	**0.00**	**0.00**	**0**	**0**	**0**
	Employees	**0.00**	**0.00**	**0.00**	**0**	**0**	**0**
	Sub-Total (Medical Office)	**0.00**	**0.00**	**0.00**	**0**	**0**	**0**
Restaurant (Fine / Casual Dining)	Visitors	6.38	5.16	11.54	146	118	264
	Employees	1.79	0.00	1.79	41	13	54
	Sub-Total (Restaurant Fine Dining)	**8.17**	**5.75**	**13.91**	**187**	**132**	**319**
Restaurant (Fast Food)	Visitors	0.00	9.61	9.61	0	0	0
	Employees	0.00	1.90	1.90	0	0	0
	Sub-Total (Restaurant Fast Casual)	**0.00**	**11.51**	**11.51**	**0**	**0**	**0**
Bowling Alley	Visitors	3.62	0.39	4.01	217	23	240
	Employees	0.23	0.00	0.24	14	0	14
	Sub-Total (Bowling Alley)	**3.85**	**0.40**	**4.25**	**231**	**24**	**255**
				Total (Commercial)	**93**	**-1**	**92**
				Total (Restaurant)	**187**	**132**	**319**
				Total (Hotel)	**65**	**116**	**181**
				Total (Sports Development Center)	**447**	**0**	**447**
				Total (Residential)	**491**	**277**	**768**
				Total (Office)	**6**	**0**	**6**
				Total (Bowling Alley)	**231**	**24**	**255**
				Total (All) (Rounded)	**1,521**	**548**	**2,068**

APPENDIX

Figure 23: Monthly Comparison Chart (Weekday)

Monthly Comparison Summary								
Month	Weekday							
	Overall Peak		AM Peak Hour		PM Peak Hour		Eve Peak Hour	
	Time	Demand	Time	Demand	Time	Demand	Time	Demand
January	5 PM	1,344	11 AM	1,239	5 PM	1,344	6 PM	1,344
February	5 PM	1,342	11 AM	1,240	5 PM	1,342	6 PM	1,341
March	6 PM	1,355	11 AM	1,245	5 PM	1,352	6 PM	1,355
April	6 PM	1,321	11 AM	1,222	5 PM	1,320	6 PM	1,321
May	6 PM	1,318	11 AM	1,216	5 PM	1,315	6 PM	1,318
June	6 PM	1,310	11 AM	1,212	5 PM	1,308	6 PM	1,310
July	6 PM	1,306	11 AM	1,204	5 PM	1,302	6 PM	1,306
August	6 PM	1,311	11 AM	1,206	5 PM	1,306	6 PM	1,311
September	5 PM	1,325	11 AM	1,228	5 PM	1,325	6 PM	1,325
October	6 PM	1,347	11 AM	1,243	5 PM	1,346	6 PM	1,347
November	6 PM	1,333	11 AM	1,233	5 PM	1,333	6 PM	1,333
December	6 PM	1,376	11 AM	1,257	5 PM	1,371	6 PM	1,376
Late December	6 PM	1,319	11 AM	1,196	5 PM	1,311	6 PM	1,319

Figure 24: Monthly Comparison Chart (Weekend)

Monthly Comparison Summary								
Month	Weekend							
	Overall Peak		AM Peak Hour		PM Peak Hour		Eve Peak Hour	
	Time	Demand	Time	Demand	Time	Demand	Time	Demand
January	1 PM	1,394	11 AM	1,310	1 PM	1,394	7 PM	1,324
February	1 PM	1,381	11 AM	1,298	1 PM	1,381	7 PM	1,322
March	1 PM	1,364	11 AM	1,271	1 PM	1,364	7 PM	1,337
April	7 PM	1,300	11 AM	1,209	1 PM	1,297	7 PM	1,300
May	7 PM	1,297	11 AM	1,186	1 PM	1,279	7 PM	1,297
June	7 PM	1,287	11 AM	1,184	1 PM	1,273	7 PM	1,287
July	7 PM	1,287	11 AM	1,183	1 PM	1,274	7 PM	1,287
August	7 PM	1,291	11 AM	1,199	1 PM	1,290	7 PM	1,291
September	1 PM	1,328	11 AM	1,244	1 PM	1,328	7 PM	1,303
October	1 PM	1,360	11 AM	1,272	1 PM	1,360	7 PM	1,328
November	1 PM	1,347	11 AM	1,262	1 PM	1,347	7 PM	1,311
December	1 PM	1,420	11 AM	1,323	1 PM	1,420	7 PM	1,357
Late December	1 PM	1,373	11 AM	1,276	1 PM	1,373	7 PM	1,324

Figure 25: Monthly Adjustment Factors (Weekday)

Monthly Adjustments for Customer/Visitor Parking													
Land Use	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Late Dec**
Retail	59%	61%	70%	67%	72%	72%	70%	73%	66%	69%	76%	100%	85%
Supermarket/Grocery	93%	86%	94%	92%	97%	94%	96%	95%	92%	95%	95%	100%	95%
Pharmacy	89%	85%	92%	89%	91%	89%	89%	90%	88%	92%	89%	100%	95%
Discount Stores/Superstores	72%	72%	79%	76%	81%	79%	79%	81%	74%	79%	85%	100%	90%
Home Improvement Stores/Garden	63%	62%	79%	90%	100%	92%	87%	84%	80%	85%	80%	75%	65%
Fine/Casual Dining	88%	87%	98%	94%	99%	94%	96%	96%	89%	93%	89%	100%	95%
Family Restaurant	88%	87%	98%	94%	99%	94%	96%	96%	89%	93%	89%	100%	95%
Fast Casual/Fast Food	85%	85%	97%	95%	99%	98%	100%	100%	93%	96%	92%	96%	95%
Bar/Lounge/Night Club	87%	87%	100%	93%	97%	94%	97%	96%	94%	98%	92%	96%	95%
Family Entertainment (Weekdays)	20%	26%	36%	50%	23%	45%	87%	68%	22%	25%	20%	48%	100%
Family Entertainment (Weekends)	79%	90%	91%	100%	60%	70%	72%	76%	70%	72%	74%	60%	80%
Active Entertainment	79%	90%	91%	100%	60%	70%	72%	76%	70%	72%	74%	60%	100%
Bowling Alley	85%	86%	95%	92%	96%	95%	98%	99%	91%	96%	93%	100%	95%
All Movies (Weekdays)	50%	50%	45%	33%	55%	50%	75%	55%	25%	25%	55%	55%	100%
All Movies (Weekends)	25%	40%	60%	35%	70%	75%	75%	45%	35%	40%	80%	90%	100%
Banquet Hall	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Outdoor Amphitheater	0%	0%	0%	10%	100%	100%	100%	100%	100%	50%	10%	10%	0%
Public Park/Destination Open Space	25%	25%	50%	75%	100%	100%	100%	100%	100%	100%	75%	75%	25%
Museum/Aquarium (Weekdays)	20%	26%	36%	50%	23%	45%	87%	68%	22%	25%	20%	48%	100%
Museum/Aquarium (Weekends)	79%	90%	91%	100%	60%	70%	72%	76%	70%	72%	74%	60%	100%
Arena	90%	100%	100%	100%	100%	75%	0%	0%	60%	65%	90%	100%	95%
Pro Football Stadium	0%	0%	0%	0%	67%	67%	67%	67%	100%	100%	100%	100%	100%
Pro Baseball Stadium	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	0%	100%	0%
Health Club	100%	95%	85%	70%	65%	65%	65%	70%	80%	85%	85%	100%	95%
Public Library	75%	75%	80%	85%	90%	90%	90%	90%	95%	95%	90%	65%	50%
Day Care Center	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Convention Center	75%	100%	90%	55%	60%	50%	45%	75%	80%	85%	100%	100%	0%
Hotel-Business	60%	75%	90%	100%	95%	95%	95%	85%	90%	95%	80%	60%	55%
Hotel-Leisure	80%	90%	100%	100%	90%	90%	100%	100%	75%	75%	75%	50%	100%
Restaurant/Lounge	85%	86%	95%	92%	96%	95%	98%	99%	91%	96%	93%	100%	95%
Meeting/Banquet (< 100 sq ft/key)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Convention (> 100 sq ft/key)	75%	100%	90%	55%	60%	50%	45%	75%	80%	85%	100%	100%	0%
Residential Guest	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%
Active Senior Housing	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Office	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Medical/Dental Office	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Bank (Drive In Branch)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Food Hall	85%	85%	97%	95%	99%	98%	100%	100%	93%	96%	92%	96%	95%
Recreational Community Center	100%	95%	85%	70%	65%	65%	65%	70%	80%	85%	85%	100%	50%

Figure 26: Monthly Adjustment Factors (Weekend)

Monthly Adjustments for Employee/Resident Parking													
Land Use	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Late Dec
Retail	69%	71%	79%	77%	82%	82%	80%	83%	76%	78%	86%	100%	95%
Supermarket/Grocery	100%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Pharmacy	99%	95%	100%	99%	100%	98%	98%	99%	98%	100%	98%	100%	100%
Discount Stores/Superstores	82%	82%	88%	86%	91%	89%	89%	91%	84%	89%	95%	100%	100%
Home Improvement Stores/Garden	72%	71%	89%	100%	100%	100%	97%	94%	90%	94%	90%	85%	75%
Fine/Casual Dining	99%	98%	100%	100%	100%	100%	100%	100%	99%	100%	100%	100%	100%
Family Restaurant	99%	98%	100%	100%	100%	100%	100%	100%	99%	100%	100%	100%	100%
Fast Casual/Fast Food	96%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Bar/Lounge/Night Club	95%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Family Entertainment (Weekdays)	50%	50%	50%	60%	50%	55%	97%	78%	50%	50%	50%	58%	100%
Family Entertainment (Weekends)	89%	100%	100%	100%	70%	80%	82%	86%	80%	82%	84%	70%	90%
Active Entertainment	89%	100%	100%	100%	70%	80%	82%	86%	80%	82%	84%	70%	100%
Bowling Alley	95%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
All Movies (Weekdays)	60%	60%	55%	50%	65%	60%	85%	65%	50%	50%	65%	65%	100%
All Movies (Weekends)	50%	50%	70%	50%	80%	85%	85%	55%	50%	50%	90%	100%	100%
Banquet Hall	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Outdoor Amphitheater	10%	10%	10%	50%	100%	100%	100%	100%	100%	60%	50%	50%	10%
Public Park/Destination Open Space	50%	50%	60%	85%	100%	100%	100%	100%	100%	100%	85%	85%	50%
Museum/Aquarium (Weekdays)	50%	50%	50%	60%	50%	55%	97%	78%	50%	50%	50%	58%	100%
Museum/Aquarium (Weekends)	89%	100%	100%	100%	70%	80%	82%	86%	80%	82%	84%	70%	100%
Arena	100%	100%	100%	100%	100%	100%	10%	10%	75%	75%	100%	100%	100%
Pro Football Stadium	10%	10%	10%	10%	10%	10%	10%	100%	10%	10%	10%	100%	80%
Pro Baseball Stadium	10%	10%	25%	90%	100%	100%	100%	100%	100%	100%	10%	100%	10%
Health Club	100%	100%	95%	80%	75%	75%	75%	80%	90%	95%	95%	100%	0%
Public Library	85%	85%	85%	90%	95%	95%	90%	95%	100%	100%	95%	65%	45%
Day Care Center	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Convention Center	85%	100%	100%	65%	70%	60%	55%	85%	90%	95%	100%	100%	0%
Hotel	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Residential Reserved	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Residential Nonreserved	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%
Active Senior Housing	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Office Nonreserved	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Office Reserved	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Medical/Dental Office	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Bank (Drive In Branch)	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Food Hall	96%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Recreational Community Center	100%	100%	95%	80%	75%	75%	75%	80%	90%	95%	95%	100%	50%

Figure 27: Time of Day Adjustment Factors (Weekday)

Time-of-Day Factors for Weekday Demand																			
Land Use	**User Group**	**6:00 AM**	**7:00 AM**	**8:00 AM**	**9:00 AM**	**10:00 AM**	**11:00 AM**	**12:00 PM**	**1:00 PM**	**2:00 PM**	**3:00 PM**	**4:00 PM**	**5:00 PM**	**6:00 PM**	**7:00 PM**	**8:00 PM**	**9:00 PM**	**10:00 PM**	**11:00 PM**	**12:00 AM**
Retail Typical	Visitors	1%	5%	15%	35%	60%	75%	100%	100%	95%	85%	85%	85%	90%	80%	65%	45%	15%	5%	0%
December	Visitors	1%	5%	15%	30%	55%	75%	90%	100%	100%	95%	80%	85%	90%	90%	85%	50%	30%	10%	0%
Late December	Visitors	1%	5%	10%	20%	40%	65%	90%	100%	100%	100%	95%	85%	70%	55%	40%	25%	15%	5%	0%
All	Employees	10%	15%	25%	45%	75%	95%	100%	100%	100%	100%	100%	100%	100%	100%	90%	60%	40%	20%	0%
Supermarket/Grocery	Visitors	5%	20%	30%	50%	60%	67%	85%	90%	95%	97%	100%	100%	100%	85%	55%	35%	20%	5%	5%
	Employees	20%	30%	40%	80%	90%	100%	100%	100%	100%	100%	100%	100%	80%	50%	35%	20%	20%	20%	20%
Fine/Casual Dining	Visitors	0%	0%	0%	0%	15%	40%	75%	75%	65%	40%	50%	75%	95%	100%	100%	100%	95%	75%	25%
	Employees	0%	20%	50%	75%	90%	90%	90%	90%	90%	75%	75%	100%	100%	100%	100%	100%	100%	85%	35%
Fast Casual/Fast Food	Visitors	5%	10%	20%	30%	55%	85%	100%	100%	90%	60%	55%	60%	85%	80%	50%	30%	20%	10%	5%
	Employees	20%	20%	30%	40%	75%	100%	100%	100%	95%	70%	60%	70%	90%	90%	60%	40%	30%	20%	20%
Bar/Lounge/Night Club	Visitors	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25%	50%	75%	100%	100%	75%	50%
	Employees	0%	0%	0%	5%	5%	5%	5%	10%	10%	10%	20%	45%	70%	100%	100%	100%	100%	90%	60%
Bowling Alley	Visitors	0%	0%	0%	0%	45%	45%	45%	45%	45%	45%	45%	45%	87%	99%	100%	82%	82%	0%	0%
	Employees	0%	0%	5%	25%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	25%	25%
Hotel-Business	Visitors	95%	90%	80%	70%	60%	60%	55%	55%	60%	60%	65%	70%	75%	75%	80%	85%	95%	100%	100%
Hotel-Leisure	Visitors	95%	95%	90%	80%	70%	70%	65%	65%	70%	70%	75%	80%	85%	85%	90%	95%	95%	100%	100%
Employee	Employees	10%	30%	100%	100%	100%	100%	100%	100%	100%	100%	70%	70%	40%	20%	20%	20%	20%	10%	5%
Restaurant/Lounge	Visitors	0%	10%	30%	10%	10%	5%	100%	100%	33%	10%	10%	30%	55%	60%	70%	67%	60%	40%	30%
Meeting/Banquet (< 100 sq ft/key)	Visitors	0%	0%	30%	60%	60%	60%	65%	65%	65%	65%	65%	100%	100%	100%	100%	100%	50%	0%	0%
Convention (> 100 sq ft/key)	Visitors	0%	0%	50%	100%	100%	100%	100%	100%	100%	100%	100%	100%	50%	30%	30%	10%	0%	0%	0%
Employee	Employees	10%	10%	60%	100%	100%	100%	100%	100%	100%	100%	100%	100%	60%	40%	40%	20%	0%	0%	0%
Residential Guest	Visitors	0%	10%	20%	20%	20%	20%	20%	20%	20%	20%	20%	40%	60%	100%	100%	100%	100%	80%	50%
Resident Reserved	Residents	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Resident (Apartments)	Residents	95%	80%	67%	55%	50%	45%	40%	40%	40%	40%	45%	50%	60%	70%	80%	85%	95%	97%	100%
Resident (Townhome)	Residents	95%	85%	75%	65%	60%	55%	50%	50%	50%	55%	60%	65%	70%	75%	80%	85%	95%	97%	100%
Office	Visitors	0%	1%	20%	60%	100%	45%	15%	45%	95%	45%	15%	10%	5%	2%	1%	0%	0%	0%	0%
	Employees Unreserved	3%	15%	50%	90%	100%	100%	85%	85%	95%	95%	85%	60%	25%	15%	5%	3%	1%	0%	0%
	Employees Reserved	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Medical/Dental Office	Visitors	0%	0%	90%	90%	100%	100%	30%	90%	100%	100%	90%	80%	67%	30%	15%	0%	0%	0%	0%
	Employees	0%	20%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	67%	30%	15%	0%	0%	0%	0%
Food Hall	Visitors	5%	10%	20%	30%	55%	85%	100%	100%	90%	60%	55%	60%	85%	80%	50%	30%	20%	10%	5%
	Employees	20%	20%	30%	40%	75%	100%	100%	100%	95%	70%	60%	70%	90%	90%	60%	40%	30%	20%	20%
Recreational Community Center	Visitors	70%	40%	40%	70%	70%	80%	60%	70%	70%	70%	80%	100%	100%	90%	80%	70%	35%	10%	0%
	Employees	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	100%	100%	100%	50%	20%	20%	20%	20%	0%

Figure 28: Time of Day Adjustment Factors (Weekend)

Time-of-Day Factors for Weekend Demand																			
Land Use	**User Group**	**6:00 AM**	**7:00 AM**	**8:00 AM**	**9:00 AM**	**10:00 AM**	**11:00 AM**	**12:00 PM**	**1:00 PM**	**2:00 PM**	**3:00 PM**	**4:00 PM**	**5:00 PM**	**6:00 PM**	**7:00 PM**	**8:00 PM**	**9:00 PM**	**10:00 PM**	**11:00 PM**	**12:00 AM**
Retail Typical	Visitors	1%	5%	30%	50%	70%	90%	95%	100%	100%	95%	90%	80%	75%	70%	65%	50%	30%	10%	0%
December	Visitors	1%	5%	10%	35%	60%	85%	100%	100%	100%	100%	90%	80%	65%	60%	55%	50%	35%	15%	1%
Late December	Visitors	1%	5%	10%	20%	40%	60%	80%	95%	100%	100%	95%	85%	70%	60%	50%	30%	20%	10%	0%
All	Employees	10%	15%	40%	75%	85%	95%	100%	100%	100%	100%	100%	95%	85%	80%	75%	65%	45%	15%	0%
Supermarket/Grocery	Visitors	8%	25%	50%	75%	95%	100%	100%	100%	100%	100%	100%	90%	50%	33%	25%	15%	5%	4%	3%
	Employees	15%	35%	70%	85%	100%	100%	100%	100%	85%	75%	60%	55%	45%	40%	30%	20%	10%	10%	5%
Fine/Casual Dining	Visitors	0%	0%	0%	0%	0%	15%	50%	55%	45%	45%	45%	60%	90%	95%	100%	90%	90%	90%	50%
	Employees	0%	20%	30%	60%	75%	75%	75%	75%	75%	75%	75%	100%	100%	100%	100%	100%	100%	85%	50%
Family Restaurant	Visitors	10%	25%	45%	70%	90%	90%	100%	85%	65%	40%	45%	60%	70%	70%	65%	30%	25%	15%	10%
	Employees	50%	75%	90%	90%	100%	100%	100%	100%	100%	75%	75%	95%	95%	95%	95%	80%	65%	65%	35%
Fast Casual/Fast Food	Visitors	5%	10%	20%	30%	55%	85%	100%	100%	90%	60%	55%	60%	85%	80%	50%	30%	20%	10%	5%
	Employees	15%	20%	30%	40%	75%	100%	100%	100%	95%	70%	60%	70%	90%	90%	60%	40%	30%	20%	20%
Bar/Lounge/Night Club	Visitors	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25%	50%	75%	100%	100%	100%	100%
	Employees	0%	0%	0%	5%	5%	5%	5%	10%	10%	10%	20%	45%	70%	100%	100%	100%	100%	100%	100%
Bowling Alley	Visitors	0%	0%	0%	0%	25%	65%	85%	90%	95%	95%	90%	95%	100%	95%	90%	100%	100%	100%	90%
	Employees	0%	0%	5%	25%	75%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Hotel-Business	Visitors	95%	90%	80%	70%	60%	60%	55%	55%	60%	60%	65%	70%	75%	75%	80%	85%	95%	100%	100%
Hotel-Leisure	Visitors	95%	95%	90%	80%	70%	70%	65%	65%	70%	70%	75%	80%	85%	85%	90%	95%	95%	100%	100%
Employee	Employees	10%	30%	100%	100%	100%	100%	100%	100%	100%	100%	70%	70%	40%	20%	20%	20%	20%	10%	5%
Restaurant/Lounge	Visitors	0%	10%	30%	10%	10%	5%	100%	100%	33%	10%	10%	30%	55%	60%	70%	67%	60%	40%	30%
Meeting/Banquet (< 100 sq ft/key)	Visitors	0%	0%	30%	60%	60%	60%	65%	65%	65%	65%	65%	100%	100%	100%	100%	100%	50%	0%	0%
Convention (> 100 sq ft/key)	Visitors	0%	0%	50%	100%	100%	100%	100%	100%	100%	100%	100%	100%	50%	30%	30%	10%	0%	0%	0%
Employee	Employees	10%	10%	60%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	60%	10%	10%
Residential Guest	Visitors	0%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	40%	60%	100%	100%	100%	100%	80%	50%
Resident Reserved	Residents	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Resident (Apartments)	Residents	100%	95%	88%	80%	75%	70%	68%	65%	65%	68%	71%	74%	77%	80%	83%	86%	89%	92%	100%
Resident (Townhome)	Residents	90%	85%	80%	75%	70%	69%	68%	67%	66%	55%	60%	55%	50%	55%	65%	75%	85%	90%	100%
Office	Visitors	0%	20%	60%	80%	90%	100%	90%	80%	60%	40%	20%	10%	5%	0%	0%	0%	0%	0%	0%
	Employees Unreserved	0%	20%	60%	80%	90%	100%	90%	80%	60%	40%	20%	10%	5%	0%	0%	0%	0%	0%	0%
	Employees Reserved	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Medical/Dental Office	Visitors	0%	0%	90%	90%	100%	100%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Employees	0%	20%	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Food Hall	Visitors	5%	10%	20%	30%	55%	85%	100%	100%	90%	60%	55%	60%	85%	80%	50%	30%	20%	10%	5%
	Employees	15%	20%	30%	40%	75%	100%	100%	100%	95%	70%	60%	70%	90%	90%	60%	40%	30%	20%	20%
Recreational Community Center	Visitors	50%	60%	80%	90%	95%	100%	100%	100%	100%	90%	80%	70%	50%	50%	30%	10%	1%	1%	0%
	Employees	50%	60%	80%	90%	95%	100%	100%	100%	100%	90%	80%	70%	50%	50%	50%	20%	20%	20%	0%

Figure 29: Projected Need by Land Use and Time of Day During Peak Day and Month (Weekday)

Weekday Estimated Peak-Hour Parking Demand																								
Land Use	Monthly Adjustment	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 AM	Overall Peak 6 PM	AM Peak Hour 11 AM	PM Peak Hour 5 PM	Eve Peak Hour 6 PM
Retail																								
Retail (<400 ksf)	100%	0	1	3	5	10	13	16	18	18	17	14	15	16	16	15	9	5	2	0	16	13	15	16
Employee	100%	0	1	1	2	4	5	5	5	5	5	5	5	5	5	4	3	2	1	0	5	5	5	5
Supermarket/Grocery	100%	0	1	1	2	3	3	4	4	4	4	4	4	4	3	2	1	1	0	0	4	3	4	4
Employee	100%	0	1	1	1	2	2	2	2	2	2	2	2	1	1	1	0	0	0	0	1	2	2	1
Food and Beverage																								
Fine/Casual Dining	100%	0	0	0	0	34	92	172	172	149	92	115	172	218	230	230	230	218	172	57	218	92	172	218
Employee	100%	0	10	25	37	44	44	44	44	44	37	37	49	49	49	49	49	49	42	17	49	44	49	49
Entertainment and Institutions																								
Bowling Alley	100%	0	0	0	0	99	99	99	99	99	99	99	99	192	218	221	181	181	0	0	192	99	99	192
Employee	100%	0	0	1	3	11	11	11	11	11	11	11	11	11	11	11	11	11	3	3	11	11	11	11
Hotel and Residential																								
Hotel-Business	60%	42	39	35	31	26	26	24	24	26	26	28	31	33	33	35	37	42	44	44	33	26	31	33
Hotel-Leisure	50%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Hotel Employees	60%	1	3	11	11	11	11	11	11	11	11	8	8	4	2	2	2	2	1	1	4	11	8	4
Restaurant/Lounge	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Meeting/Banquet (0 to 20 sq ft/key)	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Meeting/Banquet (20 to 50 sq ft/key)	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Meeting/Banquet (50 to 100 sq ft/key)	100%	0	0	15	30	30	30	32	32	32	32	32	50	50	50	50	50	25	0	0	50	30	50	50
Convention (100 to 200 sq ft/key)	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Convention (> 200 sq ft/key)	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Restaurant/Meeting Employees	100%	1	1	5	8	8	8	8	8	8	8	8	8	5	3	3	2	0	0	0	5	8	8	5
Residential, Suburban																					-	-	-	-
Studio Efficiency	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
1 Bedroom	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
2 Bedrooms	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
3+ Bedrooms	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Reserved	100%	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480
Visitor	100%	0	4	7	7	7	7	7	7	7	7	7	15	22	37	37	37	37	30	19	22	7	15	22
Office																								
Office <25 ksf	100%	0	0	1	3	5	2	1	2	5	2	1	1	0	0	0	0	0	0	0	0	2	1	0
Reserved	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Employee	100%	2	9	30	53	59	59	50	50	56	56	50	36	15	9	3	2	1	0	0	15	59	36	15
Medical/Dental Office	100%	0	0	84	84	93	93	28	84	93	93	84	74	62	28	14	0	0	0	0	62	93	74	62
Employee	100%	0	9	46	46	46	46	46	46	46	46	46	46	31	14	7	0	0	0	0	31	46	46	31
Day Care Center	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Employee	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Bank (Drive In Branch)	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Employee	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Additional Land Uses																								
Food Hall	96%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Employee	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Recreational Community Center	100%	99	79	79	138	138	158	118	138	138	138	158	197	197	177	158	138	69	20	0	197	158	197	197
Employee	100%	8	8	8	8	8	8	8	8	8	8	10	10	10	5	2	2	2	2	0	10	8	10	10
Outdoor Turf Field	75%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Employee	85%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Additional Land Use 4	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Employee	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	Customer/Visitor	143	134	240	325	476	558	545	627	621	561	594	707	844	835	789	701	588	270	123	844	558	707	844
	Employee/Resident	15	44	131	180	204	206	198	198	204	196	190	187	141	106	87	74	70	51	23	141	206	187	141
	Reserved	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480
		638	658	851	985	1,160	1,244	1,223	1,304	1,304	1,237	1,263	1,374	1,466	1,420	1,356	1,255	1,138	801	625	1,466	1,244	1,374	1,466

Figure 30: Projected Need by Land Use and Time of Day During Peak Day and Month (Weekend)

Weekend Estimated Peak-Hour Parking Demand																								
Land Use	Monthly Adjustment	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 AM	Overall Peak	AM Peak Hour	PM Peak Hour	Eve Peak Hour
																					1 PM	11 AM	1 PM	7 PM
Retail																								
Retail (<400 ksf)	100%	0	1	2	7	12	17	19	19	19	19	18	16	13	12	11	10	7	3	0	19	17	19	12
Employee	100%	1	1	2	4	5	5	6	6	6	6	6	5	5	5	4	4	3	1	0	6	5	6	5
Supermarket/Grocery	100%	0	1	2	3	4	4	4	4	4	4	4	3	2	1	1	0	0	0	0	4	4	4	1
Employee	100%	0	1	1	2	2	2	2	2	2	1	1	1	1	1	1	0	0	0	0	2	2	2	1
Food and Beverage																								
Fine/Casual Dining	100%	0	0	0	0	0	40	132	146	119	119	119	159	238	252	265	238	238	238	132	146	40	146	252
Employee	100%	0	11	17	33	41	41	41	41	41	41	41	55	55	55	55	55	55	47	28	41	41	41	55
Entertainment and Institutions																								
Bowling Alley	100%	0	0	0	0	60	157	205	217	229	229	217	229	241	229	217	241	241	241	217	217	157	217	229
Employee	100%	0	0	1	4	11	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Hotel and Residential																								
Hotel-Business	60%	49	46	41	36	31	31	28	28	31	31	33	36	38	38	41	43	49	51	51	28	31	28	38
Hotel-Leisure	50%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Hotel Employees	60%	1	3	11	11	11	11	11	11	11	11	8	8	4	2	2	2	2	1	1	11	11	11	2
Restaurant/Lounge	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Meeting/Banquet (0 to 20 sq ft/key)	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Meeting/Banquet (20 to 50 sq ft/key)	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Meeting/Banquet (50 to 100 sq ft/key)	100%	0	0	7	15	15	15	16	16	16	16	16	25	25	25	25	25	12	0	0	16	15	16	25
Convention (100 to 200 sq ft/key)	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Convention (> 200 sq ft/key)	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Restaurant/Meeting Employees	100%	1	1	6	10	10	10	10	10	10	10	10	10	10	10	10	10	6	1	1	10	10	10	10
Residential, Suburban	100%																				-	-	-	-
Studio Efficiency	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
1 Bedroom	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
2 Bedrooms	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
3+ Bedrooms	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Reserved	100%	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480
Visitor	100%	0	11	11	11	11	11	11	11	11	11	11	22	33	55	55	55	55	44	28	11	11	11	55
Office																								
Office <25 ksf	100%	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0
Reserved	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Employee	100%	0	1	4	5	6	6	6	5	4	3	1	1	0	0	0	0	0	0	0	5	6	5	0
Additional Land Uses																								
Food Hall	96%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Employee	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Recreational Community Center	100%	219	262	350	393	415	437	437	437	437	393	350	306	219	219	131	44	4	4	0	437	437	437	219
Employee	100%	5	6	8	9	10	10	10	10	10	9	8	7	5	5	5	2	2	2	0	10	10	10	5
Outdoor Turf Field	75%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Employee	85%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Additional Land Use 4	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Employee	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	Customer/Visitor	272	334	440	505	598	763	906	931	919	875	820	836	831	845	756	663	609	584	430	931	763	931	845
	Employee/Resident	10	28	57	87	106	111	111	110	107	103	96	107	100	96	95	90	83	67	44	110	111	110	96
	Reserved	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480
		761	842	977	1,071	1,183	1,354	1,496	1,521	1,506	1,458	1,395	1,423	1,410	1,421	1,331	1,233	1,172	1,131	953	1,521	1,354	1,521	1,421

Figure 31: Projected Parking Needs at Selected Time Periods by Land Use (Phase 1) – Town of Castle Rock Table

Uses	Quantity	Per Unit[6]	Peak Weekday Morning Use[7] (11 AM)	Peak Weekday Afternoon Use[8] (5 PM)	Peak Weekday Evening Use[9] (6 PM)	Peak Weekday Overnight Use[10] (12 AM)[2]	Peak Weekend Morning Use[7] (11 AM)	Peak Weekend Afternoon Use[8] (1 PM)[1]	Peak Weekend Evening Use[9] (7 PM)	Peak Weekend Overnight Use[10] (12 AM)[2]
General Retail	5,421	GSF	14	15	16	0	17	20	13	0
Retail - Market Place	0	GSF	0	0	0	0	0	0	0	0
Retail - Supermarket	0	GSF	0	0	0	0				
Restaurant - Low Turnover	11,000	GSF	66	107	129	36	39	90	147	77
Bowling Alley[14,15]	0	GSF	0	0	0	0	0	0	0	0
Hotel - Guest Rooms	0	Rooms	0	0	0	0	0	0	0	0
Hotel - Conference Center[4]	0	GSF	0	0	0	0	0	0	0	0
Multifamily[5,11]	298	Dwelling Units	378	384	390	596	381	381	415	596
General Office	8,500	GSF	22	13	5	0	4	3	0	0
Medical Office	14,500	GSF	66	57	44	0	0	0	0	0
CR Sports Center[12,13]	145,000	GSF	166	208	208	0	447	447	224	0
			712	**784**	**792**	**632**	**888**	**941**	**799**	**673**

Figure 32: Projected Parking Needs at Selected Time Periods by Land Use (Phase 1 + 2) – Town of Castle Rock Table

Uses	Quantity	Per Unit[6]	Peak Weekday Morning Use[7] (11 AM)	Peak Weekday Afternoon Use[8] (5 PM)	Peak Weekday Evening Use[9] (6 PM)	Peak Weekday Overnight Use[10] (12 AM)[2]	Peak Weekend Morning Use[7] (11 AM)	Peak Weekend Afternoon Use[8] (1 PM)[1]	Peak Weekend Evening Use[9] (7 PM)	Peak Weekend Overnight Use[10] (12 AM)[2]
General Retail	7,000	GSF	18	20	21	0	22	25	16	0
Retail - Market Place	1,500	GSF	5	6	5	1	6	6	2	0
Retail - Supermarket	0	GSF	0	0	0	0				
Restaurant - Low Turnover	22,900	GSF	136	222	268	75	81	187	307	160
Bowling Alley[14,15]	0	GSF	0	0	0	0	0	0	0	0
Hotel - Guest Rooms	123	Rooms	37	38	37	148	42	39	41	148
Hotel - Conference Center[4]	6,000	GSF	40	60	56	0	25	26	35	1
Multifamily[5,11]	384	Dwelling Units	487	495	502	768	491	491	535	768
General Office	25,000	GSF	62	36	15	0	7	6	0	0
Medical Office	31,000	GSF	138	120	93	0	0	0	0	0
CR Sports Center[12,13]	145,000	GSF	166	208	208	0	447	447	224	0
			1,089	**1,205**	**1,205**	**992**	**1,121**	**1,227**	**1,160**	**1,077**

Figure 33: Projected Parking Needs at Selected Time Periods by Land Use (Full Buildout) – Town of Castle Rock Table

Uses	Quantity	Per Unit[6]	Peak Weekday Morning Use[7] (11 AM)	Peak Weekday Afternoon Use[8] (5 PM)	Peak Weekday Evening Use[9] (6 PM)	Peak Weekday Overnight Use[10] (12 AM)[2]	Peak Weekend Morning Use[7] (11 AM)	Peak Weekend Afternoon Use[8] (1 PM)[1]	Peak Weekend Evening Use[9] (7 PM)	Peak Weekend Overnight Use[10] (12 AM)[2]
General Retail	7,000	GSF	18	20	21	0	22	25	16	0
Retail - Market Place	1,500	GSF	5	6	5	1	6	6	2	0
Retail - Supermarket	15,000	GSF	45	60	58	5	62	62	19	2
Restaurant - Low Turnover	22,900	GSF	136	222	268	75	81	187	307	160
Bowling Alley[14,15]	60,000	GSF	111	111	203	3	171	231	243	231
Hotel - Guest Rooms	123	Rooms	37	38	37	148	42	39	41	148
Hotel - Conference Center[4]	6,000	GSF	40	60	56	0	25	26	35	1
Multifamily[5,11]	384	Dwelling Units	487	495	502	768	491	491	535	768
General Office	25,000	GSF	62	36	15	0	7	6	0	0
Medical Office	31,000	GSF	138	120	93	0	0	0	0	0
CR Sports Center[12,13]	145,000	GSF	166	208	208	0	447	447	224	0
			1,245	**1,376**	**1,466**	**1,000**	**1,354**	**1,520**	**1,422**	**1,310**

TRAFFIC IMPACT REPORT

THE BRICKYARD
CASTLE ROCK, COLORADO

March 16, 2023
Revised: October 18, 2024
Revised: June 25, 2025
Revised: August 12, 2025

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APPENDIX “C” INTERSECTION CAPACITY ANALYSIS WORKSHEETS

APPENDIX “D” INTERNAL TRIP CAPTURE WORKSHEETS

EXECUTIVE SUMMARY

Confluence Companies is proposing to redevelop a property containing approximately 31.18 acres of land within the jurisdictional limits of the Town of Castle Rock, Colorado. The subject property is currently developed as the now defunct Acme Brick Company. More specifically, the subject property is bound by industrial properties with access to Topeka Way on the north, Prairie Hawk Dr. and several residential properties on the east, undeveloped land to the south, and the proposed Miller's Landing development to the west, which is currently undeveloped. At buildout, the proposed mixed-use development will be known as The Brickyard and will consist of 384 multi-family (mid-rise) housing units, a 123-room hotel, 8,500 square feet of commercial/retail space, 22,900 square feet of high turnover (sit-down) restaurant/food hall space, 56,000 total square feet of general office and medical office space, a 15,000 square foot supermarket, a bowling alley with 64 lanes, and a 145,000 square-foot community recreation center.

Vehicular access for the proposed Brickyard development will be provided via an internal roadway network providing connectivity to the external transportation system at the following locations:

- West Access Roadway– A two-lane roadway extending from the west property boundary to intersect with the proposed extension of the realigned Prairie Hawk Dr. through the proposed Miller's Landing development via a proposed two-lane roundabout. Prior to the construction of the roundabout, this two-lane roadway (to be known as Praxis St.) will extend west from the property boundary, then south to intersect with Plum Creek Pkwy. at the Dawson Trails Blvd. intersection.
- NE Site Access (Brickyard Cir. North) - A full movement access driveway intersecting the existing Prairie Hawk Dr. approximately 620 feet south of the NE property boundary of the development site.
- SE Site Access (Brickyard Cir. South) – A full movement access driveway intersecting the existing Prairie Hawk Dr. approximately 650 feet south of the proposed NE Access Roadway.
- Bowling Alley Access – A full movement access driveway intersecting the existing Prairie Hawk Dr. north of the NE Site Access will be constructed to provide direct access to the proposed bowling alley.

Based on these parameters, at buildout, the proposed Brickyard development is projected to generate 11,429 daily vehicle trips of which 888 will occur during the morning peak hour and 1,135 will occur during the evening peak hour.

Based on the analyses contained herein, recommendations for intersection improvements to accommodate the addition of the proposed Brickyard development traffic were developed, while considering the proposed Miller's Landing development, anticipated Dawson Trails development on the property south of Plum Creek Pkwy., the assumed Castle Meadows development on the property immediately to the south of the proposed Brickyard development, regional traffic volume growth, the construction of the new Crystal Valley Interchange, and planned/anticipated transportation system improvements for the study area roadways and intersections, based on the CRTMP.

The following is a summary of the recommendations to be the responsibility of the developer in order to mitigate the impact of the traffic projected to be generated by the proposed Brickyard development by the 2027 (build-out) analysis horizon:

- **Prairie Hawk Dr. (Existing Alignment)** - The existing alignment of Prairie Hawk Dr. adjacent to the frontage of the proposed Brickyard development shall be modified to a two-lane residential collector roadway with on-street bicycle lanes and on-street angled parking adjacent to the project site. From the north end of the project site to E. Wolfensberger Rd., Prairie Hawk Dr. will be reconstructed, with new curb and gutter installed along both sides of the roadway.
- **Praxis St.** – A new two-lane roadway will be constructed to extend west from the property boundary at the west site access intersection, then curve south at the future 2-lane roundabout location to intersect with Plum Creek Pkwy. at the Dawson Trails Blvd. intersection.
- **(1) Wolfensberger Rd./Prairie Hawk Dr. Intersection** – The Brickyard developer shall participate in funding the design and construction of the improvements to increase the available storage of the WB left turn lane from 150 feet to 225 feet in order to accommodate the projected queue as a result of the addition of the Brickyard development site generated traffic. The developer will also participate in funding the design and construction of a northbound right turn lane with a minimum of 150 feet of storage.
- **(3) Prairie Hawk Dr./Topeka Way** - The Brickyard developer will be responsible for funding and implementing the restriping of the intersection to include left turn lanes with 100' feet of storage on the northbound and southbound approaches.
- **(11) Plum Creek Pkwy./Praxis St./Dawson Trails Blvd.** – The Brickyard developer will share responsibility for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will operate under traffic signal control with permitted left turn phasing on the northbound and southbound approaches and protected plus permitted phasing on the eastbound and westbound approaches. The east leg of the intersection will have one left turn lane with approximately 200 feet of storage, one through lane and one right turn lane with 100' feet of storage on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one left turn lane with 150 feet of storage and one shared through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one left turn lane with 250' feet of storage and one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane with a minimum of 100 feet of storage and one shared through/right turn lane on the northbound approach, and one southbound departure lane.
- **(13) Prairie Hawk Dr./Brickyard Cir (North) Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign control on the eastbound approach. The west leg of the intersection will have one left turn lane and one right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane with a minimum of 100 feet of storage and one through lane on the northbound approach, and one southbound departure lane.
- **(14) Prairie Hawk Dr./Brickyard Cir (South) Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign

control on the eastbound approach. The west leg of the intersection will have one left turn lane and one right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane with a minimum of 100 feet of storage and one through lane on the northbound approach, and one southbound departure lane.

- **(15) West Site Access/Brickyard Cir. Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign control on the eastbound approach. The west leg of the intersection will have one left turn lane and one right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one shared left turn/through lane on the northbound approach, and one southbound departure lane.
- **(16) Fifer St./Brickyard Cir. (North) Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign control on the northbound and southbound approaches. The east leg of the intersection will have one shared left turn/through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one shared left turn/through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one shared left turn/through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one shared left turn/through/right turn lane on the northbound approach, and one southbound departure lane.
- **(17) Fifer St./Brickyard Cir. (South) Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign control on the northbound and southbound approaches. The east leg of the intersection will have one left turn lane and one shared through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one left turn lane and one shared through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one shared left turn/through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one shared left turn/through/right turn lane on the northbound approach, and one southbound departure lane.
- **(18) Prairie Hawk Dr./Bowling Alley Access Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign control on the eastbound approach. The west leg of the intersection will have one shared left/right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one shared left turn/through lane on the northbound approach, and one southbound departure lane.

The following is a summary of the recommendations to be the responsibility of others in order to mitigate future traffic impacts caused by existing and future background traffic growth within the study area. These improvements will be needed by the 2050 (long-term) analysis horizon:

- **Prairie Hawk Dr. (Realignment)** - By 2050, Prairie Hawk Dr. is anticipated to be realigned and modified, per the CRTMP, from Wolfensberger Rd. south along its existing alignment and the existing Atchison Way alignment to the intersection of Topeka Way. From Wolfensberger Rd. to Topeka Way, the roadway section will be a 4-lane major arterial. From Topeka Way, the alignment will continue south through the Miller's Landing property to the proposed roundabout intersection with the proposed West Site Access Roadway for The Brickyard development. From Topeka Way to Plum Creek Pkwy. the roadway section will be a 4-lane arterial.

- **(2) Prairie Hawk Dr./Atchison Way** – By 2050, a new 1-lane roundabout will be constructed at this intersection. The intersection will have yield control on the eastbound, northbound, and southbound approaches. The west leg of the intersection will have one shared left turn/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one through lane and one free-flow bypass right turn lane on the southbound approach, and two northbound departure lanes. The south leg of the intersection will have one bypass through lane on the northbound approach, and one southbound departure lane.
- **(7) Plum Creek Pkwy./I-25 SB Ramps** – By 2050, a new southbound free-flow right turn lane on the north leg of the intersection will be constructed that will include a continuous acceleration/deceleration lane on Plum Creek Pkwy. which will terminate into a free flow right turn lane onto the new Praxis St. roadway extension.
- **(8) Plum Creek Pkwy./I-25 NB Ramps** – By 2050, the intersection will be modified to include the following. The east leg of the intersection will be modified to have one dedicated right turn lane, one shared through/right turn lane, one through lane, and one through lane that will accommodate the queuing needed for the left turn lane at the adjacent SB ramp intersection. The west leg of the intersection will be modified to include a second eastbound left turn lane to access northbound I-25.
- **(9) Plum Creek Pkwy./S Wilcox St. –** By 2050, it is anticipated that the westbound right turn lane will be converted into a shared through/right turn lane. It is also recommended that right turn overlap be implemented for the northbound and southbound right turn movements.
- **(10) Prairie Hawk Dr./Praxis St./West Site Access –** By 2050, this intersection will be constructed with the realigned Prairie Hawk Dr. and Praxis St. extension to the south. The intersection is assumed to be a four-legged two-lane roundabout under yield control on all four approaches. The east and west legs of the roundabout will have one approach/entry lane and one departure/exit lane. The north and south legs of the roundabout will have two approach/entry lanes and two departure/exit lanes.
- **(11) Plum Creek Pkwy./Praxis St./Dawson Trails Blvd. –** By 2050, it is anticipated that the following additional improvements will be in place. The east leg of the intersection will have dual left turn lanes with a minimum total of 600 feet of storage, two through lanes and one continuous free-flow right turn lane extending back to the I-25 SB Ramps with a raised channelizing island on the westbound approach, and two eastbound departure lanes plus a northbound to eastbound right turn auxiliary lane from Dawson Trails Blvd. to the I-25 SB ramp. The west leg of the intersection will have one left turn

lane with a minimum of 200 feet of storage, two through lanes and one right turn lane with a minimum of 250 feet of storage on the eastbound approach, and two westbound departure lanes. The north leg of the intersection will have dual left turn lanes with a minimum total of 500 feet of storage, two through lanes, and one right turn lane with approximately 100 feet of storage on the southbound approach, and two northbound departure lanes plus a westbound to northbound right turn auxiliary lane from Plum Creek Pkwy. to the East/West Collector roadway. The south leg of the intersection will have one left turn lane with a minimum of 200 feet of storage, two through lanes and one channelized free-flow right turn lane with a minimum of 150 feet of storage on the northbound approach, and two southbound departure lanes.

- **(12) Praxis St./East/West/Collector –** By 2050, it is anticipated that this intersection will be constructed to accommodate the Castle Meadows/Millers Landing development projects. The intersection will be limited to three-quarter movement access. The intersection will be a “T” intersection with stop sign control on the east leg. The east leg of the intersection will have one right turn lane on the westbound approach, and one eastbound departure lane. The north leg of the intersection will have one left turn lane, and two through lanes on the southbound approach, and two northbound departure lanes. The south leg of the intersection will have two through lanes and one channelized continuous free-flow right turn lane on the northbound approach, and two southbound departure lanes.

I. INTRODUCTION

A. Purpose of Study

The purpose of this study is to evaluate the impact of the vehicular trips projected to be generated by the proposed Brickyard development on the study area intersections and roadway system. The study includes 2022 (existing), 2027 (year of anticipated project build-out), and 2050 (long-term) analysis horizons.

B. Study Area

The study area encompasses the existing roadway system in the vicinity of the project site. Figure 1 provides a site location map of the proposed project and surrounding transportation system. Figure 2 graphically illustrates the conceptual site plan and proposed access points for the proposed Brickyard development. Specifically, the following roadways and intersections are included in the study:

- Study Area Roadways
  1. Wolfensberger Rd.
  2. Plum Creek Pkwy.
  3. Existing Prairie Hawk Dr.
  4. Atchison Way
  5. Topeka Way
  6. Proposed realigned Prairie Hawk Dr./Praxis St.
  7. East/West Collector (2050 Proposed)
- Study Area Intersections
  1. Wolfensberger Rd./Prairie Hawk Dr. (Signalized)
  2. Prairie Hawk Dr./Atchison Way (TWSC)
  3. Prairie Hawk Dr./Topeka Way (TWSC)
  4. Atchison Way/Topeka Way (TWSC)
  5. Wolfensberger Rd./Plum Creek Pkwy./Coachline Rd. (2-Lane Roundabout)
  6. Plum Creek Pkwy./Auburn Dr. (TWSC)
  7. Plum Creek Pkwy./SB I-25 Ramps (Signalized)
  8. Plum Creek Pkwy./NB I-25 Ramps (Signalized)
  9. Plum Creek Pkwy./Wilcox St. (Signalized)
  10. Prairie Hawk Dr./Praxis St./West Site Access (Proposed Roundabout)
  11. Plum Creek Pkwy./Praxis St./Dawson Trails Blvd. (Proposed)
  12. Praxis St./East/West Collector
  13. Prairie Hawk Dr./Brickyard Cir. (North) (Proposed)
  14. Prairie Hawk Dr./Brickyard Cir. (South) (Proposed)
  15. West Site Access Roadway/Brickyard Cir. (Proposed)
  16. Fifer St./Brickyard Cir. (North) (Proposed)
  17. Fifer St./Brickyard Cir. (South) (Proposed)
  18. Prairie Hawk Dr./Bowling Alley Access (Proposed)

II. EXISTING CONDITIONS

A. Existing Traffic Volumes

Existing peak hour intersection turning movement traffic volume counts were collected for this study at the following intersections on Thursday, June 30, 2022:

1. Wolfensberger Rd./Prairie Hawk Dr. (Signalized)
2. Prairie Hawk Dr./Atchison Way (TWSC)
3. Prairie Hawk Dr./Topeka Way (TWSC)
4. Atchison Way/Topeka Way (TWSC)
5. Wolfensberger Rd./Plum Creek Pkwy./Coachline Rd. (2-Lane Roundabout)
6. Plum Creek Pkwy./Auburn Dr. (TWSC)
7. Plum Creek Pkwy./SB I-25 Ramps (Signalized)
8. Plum Creek Pkwy./NB I-25 Ramps (Signalized)
9. Plum Creek Pkwy./Wilcox St. (Signalized)

48-hour directional traffic volume counts were collected for this study at the following locations on Wednesday, June 29, 2022, and Thursday, June 30, 2022:

- Wolfensberger Rd. west of Prairie Hawk Dr.
- Prairie Hawk Dr. south of Wolfensberger Rd.
- Atchison Way west of Prairie Hawk Dr.
- Topeka Way west of Prairie Hawk Dr.
- Plum Creek Pkwy. west of I-25
- Plum Creek Pkwy. south of Wolfensberger Rd.

A summary of the 2022 (existing) peak hour intersection turning movement and daily directional counts are illustrated in Figure 3. Detailed traffic volume count data collected for this study is provided in Appendix “A”.

B. Existing Roadway System

The existing transportation network in the vicinity of the proposed Brickyard development is graphically illustrated in Figure 1. The following narrative provides a description of the study area roadways and associated intersections:

Existing Study Area Roadways:

1. **Wolfensberger Rd.** – Within the study area Wolfensberger Rd. is classified as a major arterial roadway under the jurisdiction of the Town of Castle Rock. From Prairie Hawk Dr. and Red Hawk Dr./Auburn Dr. the roadway section consists of two eastbound travel lanes and one westbound travel lane with a raised center median and curb and gutter along both sides of the roadway. There is a detached sidewalk along the north side of the roadway and an attached sidewalk along the south side of the roadway. The posted speed limit is 45 mph. From Red Hawk Dr./Auburn Dr. to Plum Creek Pkwy. the roadway section consists of one travel lane in each direction with minimal gravel shoulders and no sidewalks on either side of the roadway. The posted speed limit is 45 mph.
2. **Plum Creek Pkwy.** – Within the study area Plum Creek Pkwy. is classified as a major arterial roadway under the jurisdiction of the Town of Castle Rock. From Wolfensberger Rd. to I-25 the roadway section consists of one travel lane in each direction and is posted at 45 mph. From Wolfensberger Rd. to Auburn Dr. the north side of the roadway has curb & gutter and detached sidewalk. The south side of the roadway has a gravel shoulder and no sidewalk. From Auburn Dr. to I-25 the north side of the roadway has a paved shoulder and no sidewalk. The south side of the roadway has curb and gutter and a detached sidewalk. From I-25 to Wilcox St. the roadway section consists of two travel lanes in each direction with a painted center median and curb and gutter and attached sidewalks on both sides of the roadway and has a posted speed limit of 30 mph.

3. **Prairie Hawk Dr. (Existing Alignment)** – Within the study area, from Wolfensberger Rd. to Atchison Way, the existing Prairie Hawk Dr. alignment is classified as a major arterial roadway under the jurisdiction of the Town of Castle Rock. From Atchison Way south, the existing Prairie Hawk Dr. alignment is classified as a local roadway under the jurisdiction of the Town of Castle Rock. The roadway section consists of one travel lane in each direction with minimal gravel shoulders and no sidewalks on either side of the roadway. The posted speed limit is 30 mph.
4. **Atchison Way** – Within the study area, Prairie Hawk Dr. to Topeka Way, Atchison Way is classified as a major arterial roadway under the jurisdiction of the Town of Castle Rock. The roadway section consists of one travel lane in each direction with curb and gutter on the west side of the roadway and a minimal gravel shoulder on the east side. There are no sidewalks on either side or the roadway. The speed limit is not posted and assumed to be 30 mph.
5. **Topeka Way** – Within the study area, Prairie Hawk Dr. to Atchison Way, Topeka Way is classified as a local roadway under the jurisdiction of the Town of Castle Rock. The roadway section consists of one travel lane in each direction with minimal gravel shoulders and no sidewalks on either side or the roadway. The speed limit is not posted and assumed to be 30 mph.

Existing Study Area Intersections:

1. **Wolfensberger Rd./Prairie Hawk Dr.** – The Wolfensberger Rd./Prairie Hawk Dr. intersection is a four-legged intersection operating under actuated/coordinated traffic signal control with protected/permitted left turn phasing on all four approaches. The east leg of the intersection has one left turn lane with approximately 150 feet of storage, two through lanes, and one right turn lane with approximately 100 feet of storage on the westbound approach, and two eastbound departure lanes. The west leg of the intersection has one left turn lane with approximately 325 feet of storage, one through lane, and one shared through/right turn lane with approximately 325 feet of storage on the eastbound approach, and two westbound departure lanes plus a southbound to westbound right turn acceleration lane. The north leg of the intersection has one left turn lane with approximately 350 feet of storage, one through lane and one right turn lane with approximately 350 feet of storage on the southbound approach and one northbound departure lane. The south leg of the intersection has one left turn lane with approximately 250 feet of storage and one shared through/right turn lane on the northbound approach and one southbound departure lane. Existing signal timing plans for this intersection were provided by the Town of Castle Rock and are included in Appendix “B”.
2. **Prairie Hawk Dr./Atchison Way** – The Prairie Hawk Dr./Atchison Way intersection is a three-legged “T” intersection operating under two-way stop control with the stop-controlled movements on the eastbound approach. The west leg of the intersection has one shared left turn/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection has one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection has one shared left turn/through lane on the northbound approach, and one southbound departure lane.
3. **Prairie Hawk Dr./Topeka Way** – The Prairie Hawk Dr./Topeka Way intersection is a four-legged intersection operating under two-way stop control with the stop-controlled movements on the northbound (Topeka Way) and southbound (private driveway) approaches. The east leg of the intersection has one shared left turn/through/right turn

lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection has one shared left turn/through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection has one shared left turn/through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection has one shared left turn/through/right turn lane on the northbound approach, and one southbound departure lane.

4. **Atchison Way/Topeka Way** – The Atchison Way/Topeka Way intersection is a three-legged "T" intersection operating under two-way stop control with the stop-controlled movements on the southbound approach. The east leg of the intersection has one shared through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection has one shared left turn/through lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection has one shared left turn/right turn lane on the southbound approach, and one northbound departure lane.
5. **Wolfensberger Rd./Plum Creek Pkwy./Coachline Rd.** – The Wolfensberger Rd./Plum Creek Pkwy./Coachline Rd. intersection is a two-lane roundabout operating under yield control. The east leg of the intersection has one shared left turn/through lane with approximately 250 feet of storage and one shared through/right turn lane on the westbound approach, and two eastbound departure lanes. The west leg of the intersection has one shared left turn/through lane and one shared through/right turn lane on the westbound approach, and two eastbound departure lanes. The north leg of the intersection has one shared left turn/through lane with approximately 200 feet of storage and one shared through/right turn lane on the southbound approach, and two northbound departure lanes. The south leg of the intersection has one shared left turn/through lane and one shared through/right turn lane with approximately 150 feet of storage on the northbound approach, and two southbound departure lanes.
6. **Plum Creek Pkwy./Auburn Dr.** - The Plum Creek Pkwy./Auburn Dr. intersection is a three-legged "T" intersection operating under two-way stop control with the stop-controlled movements on the southbound approach. The east leg of the intersection has one shared through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection has one shared left turn/through lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection has one shared left turn/right turn lane on the southbound approach, and one northbound departure lane.
7. **Plum Creek Pkwy./I-25 SB Ramps** - The Plum Creek Pkwy./I-25 SB Ramps intersection is a four-legged intersection operating under actuated/coordinated traffic signal control with protected/permitted left turn phasing on the westbound approach and protected only left turn phasing on the northbound and southbound approaches. The east leg of the intersection has one left turn lane with approximately 675 feet of storage and two through lanes on the westbound approach, and three eastbound departure lanes. The west leg of the intersection has two through lanes and one shared through/right turn lane on the eastbound approach, and two westbound departure lanes. The north leg of the intersection has two left turn lanes and one shared left turn/through/right turn lane with approximately 225 feet of storage on the southbound approach. The south leg of the intersection has one left turn lane with approximately 375 feet of storage and one right turn lane on the northbound approach, and one southbound departure lane.

8. **Plum Creek Pkwy./I-25 NB Ramps** - The Plum Creek Pkwy./I-25 NB Ramps intersection is a four-legged intersection operating under actuated/coordinated traffic signal control with protected/permitted left turn phasing on the eastbound approach. The east leg of the intersection has one through lane serving as additional storage for the westbound left turn lane to get on I-25 southbound, one shared through/right turn lane and one right turn lane on the westbound approach, and three eastbound departure lanes. The west leg of the intersection has one left turn lane with approximately 650 feet of storage and three through lanes on the eastbound approach, and three westbound departure lanes. The north leg of the intersection has two northbound departure lanes. The south leg of the intersection has one left turn lane with approximately 400 feet of storage, one shared left turn/through/right turn lane, and one right turn lane with approximately 175 feet of storage on the northbound approach.
9. **Plum Creek Pkwy./Wilcox St.** - The Plum Creek Pkwy./Wilcox St. intersection is a four-legged intersection operating under actuated/coordinated traffic signal control with protected/permitted left turn phasing on all four approaches. The east leg of the intersection has one left turn lane with approximately 225 feet of storage, two through lanes and one right turn lane on the westbound approach and two eastbound departure lanes. The west leg of the intersection has one left turn lane with approximately 325 feet of storage, two through lanes and one channelized free-flow right turn lane with approximately 600 feet of storage on the eastbound approach, and two westbound departure lanes. The north leg of the intersection has one left turn lane with approximately 200 feet of storage, one through lane and one right turn lane with approximately 200 feet of storage on the southbound approach, and one northbound departure lane. The south leg of the intersection has two left turn lanes with approximately a total of 450 feet of storage, one through lane and one right turn lane with approximately 250 feet of storage on the northbound approach, and one southbound departure lane plus an eastbound to southbound continuous right turn acceleration lane. Existing signal timing plans for this intersection were provided by the Town of Castle Rock and are included in Appendix “B”.

C. 2022 (Existing) Conditions Operational Analysis

In order to establish a base condition in which to evaluate and compare the impacts of the traffic generated by the proposed Brickyard development on the study area intersections, peak hour capacity analyses were performed for the 2022 (existing) conditions scenario. These analyses utilized the methodologies contained in the *Highway Capacity Manual 7th Edition* (HCM 7) employing *Synchro 12* software and resulted in a qualitative measure of the operational characteristics of the intersection, described by a letter designation ranging from “A” to “F” known as “Level of Service” (LOS). LOS “A” represents free-flow operating conditions, whereas LOS “F” represents excessive congestion and delay. Unsignalized intersection capacity analysis reports a LOS designation for each impeded intersection movement. Signalized intersection capacity analysis reports the overall LOS designation for the intersection as well as for each lane group and approach. LOS “D” is considered the minimum acceptable standard of operation.

The study area intersections included in the 2022 (existing) conditions analysis are as follows:

1. Wolfensberger Rd./Prairie Hawk Dr. (Signalized)
2. Prairie Hawk Dr./Atchison Way (TWSC)
3. Prairie Hawk Dr./Topeka Way (TWSC)
4. Atchison Way/Topeka Way (TWSC)

5. Wolfensberger Rd./Plum Creek Pkwy./Coachline Rd. (2-Lane Roundabout)
6. Plum Creek Pkwy./Auburn Dr. (TWSC)
7. Plum Creek Pkwy./SB I-25 Ramps (Signalized)
8. Plum Creek Pkwy./NB I-25 Ramps (Signalized)
9. Plum Creek Pkwy./Wilcox St. (Signalized)

The results of the 2022 (existing) conditions operational analysis are summarized in Table 1, below. Figure 4 graphically illustrates the results of the existing conditions analysis and detailed *Synchro 12* software intersection capacity analysis reports are provided in Appendix "C".

As shown in Table 1, all of the existing study area intersections are shown to be operating at acceptable levels of service (LOS "D" or better), overall, as well as all impeded lane groups.

D. 2022 (Existing) Conditions Queuing Analysis

Queue lengths and associated storage requirements for auxiliary lanes (turn bays) at the existing study area intersections were computed utilizing the *Synchro 12* 95%tile reported queues. Queue length calculations are based on a 25-foot vehicle length and reported as the total cumulative computed queue length for all traffic lanes in the lane group.

Existing storage capacity for auxiliary lane groups (left turn and right turn lanes) is reported as the cumulative capacity of all lanes in the group. Table 2 provides a summary of this analysis and comparison to the actual vehicle storage lengths provided for each of the existing study area intersections.

As shown in Table 2, the following queue related issues are being experienced at the existing study area intersections based on the reported queues in the 2022 (existing) conditions analysis scenario:

- **(7) Plum Creek Pkwy./SB I-25 Ramps** – The SB left turn lanes queue is shown to block the shared left turn/through/right turn lane during the a.m. and p.m. peak hours. Also, the shared left turn/through/right turn lane is shown to exceed its capacity and spill back into the SB left turn lanes during the a.m. and p.m. peak hours.
- **(8) Plum Creek Pkwy./NB I-25 Ramps** – The EB through lanes queue is shown to exceed its capacity and spill back into the upstream intersection during the a.m. peak hour.
- **(9) Plum Creek Pkwy./Wilcox St.** – The EB through lanes queue is shown to block the EB left turn lane during the p.m. peak hour.

TABLE 1
2022 (EXISTING) CONDITIONS
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2022 EXISTING TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
1. Prairie Hawk Dr. & E. Wolfensberger Rd.	**Signal**				
a. EB L (Prot+Perm)		C	29.5	D	35.5
b. EB TR		D	39.5	D	45.0
c. WB L (Prot+Perm)		D	36.1	C	35.0
d. WB T		C	33.6	D	39.5
e. WB R		D	38.1	D	43.4
f. NB L (Prot+Perm)		B	13.6	B	10.8
g. NB TR		B	15.1	B	15.1
h. SB L (Prot+Perm)		B	11.8	B	11.5
i. SB T		B	11.2	B	10.6
j. SB R		B	11.3	B	11.4
k. INTERSECTION		**C**	**30.1**	**C**	**30.8**
2. Prairie Hawk Dr. & Atchison Way	**TWSC**				
a. EB LR	Stop	A	9.8	B	10.7
b. NB LT		A	7.6	A	7.5
c. INTERSECTION		**A**	**1.7**	**A**	**3.9**
3. Prairie Hawk Dr. & Topeka Way	**TWSC**				
a. EB LTR	Stop	A	7.3	A	7.4
b. WB LTR	Stop	A	0.0	A	0.0
c. NB LTR		A	9.6	B	10.3
d. SB LTR		A	8.8	A	9.0
e. INTERSECTION		**A**	**7.8**	**A**	**7.3**
4. Atchison Way & Topeka Way	**TWSC**				
a. EB LT		A	7.3	A	7.3
b. SB LR	Stop	A	8.5	A	8.6
c. INTERSECTION		**A**	**1.3**	**A**	**2.1**
5. Plum Creek Pkwy./Coachline Rd. & W. Wolfensberger Rd.	**Roundabout**				
a. EB LT	Yield	A	4.8	A	4.4
b. EB TR	Yield	A	4.5	A	4.1
c. WB LT	Yield	A	3.6	A	4.6
d. WB TR	Yield	A	3.5	A	4.4
e. NB LT	Yield	A	4.3	A	4.4
f. NB TR	Yield	A	4.0	A	4.2
g. SB LT	Yield	A	4.3	A	4.4
h. SB TR	Yield	A	4.2	A	4.3
i. INTERSECTION		**A**	**4.2**	**A**	**4.3**
6. Plum Creek Pkwy. & Auburn Dr.	**TWSC**				
a. EB LT		A	7.6	A	8.1
b. SB LR	Stop	B	12.6	B	14.9
c. INTERSECTION		**A**	**2.5**	**A**	**1.9**

TABLE 1 (CONTINUED)
2022 (EXISTING) CONDITIONS
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2022 EXISTING TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
7. Plum Creek Pkwy. & I-25 SB Ramps	**Signal**				
a. EB TR		D	42.3	D	42.2
b. WB L (Prot+Perm)		C	32.9	C	29.6
c. WB T		C	32.3	B	13.8
d. NB L (Prot)		D	54.4	D	54.4
e. NB R		A	8.3	A	8.3
f. SB L (Prot) (Dual)		A	8.4	B	12.4
g. SB LTR		B	11.6	B	17.8
h. INTERSECTION		**C**	**22.4**	**B**	**19.4**
8. Plum Creek Pkwy. & I-25 NB Ramps	**Signal**				
a. EB L (Prot+Perm)		D	43.7	D	35.8
b. EB T		A	6.5	A	8.2
c. WB TR		D	44.4	D	36.9
d. WB R		C	34.0	D	42.5
e. NB L (Prot)		C	28.7	C	26.5
f. NB LTR		C	28.7	C	26.5
g. NB R		C	30.6	C	28.8
h. INTERSECTION		**C**	**27.9**	**C**	**24.9**
9. Plum Creek Pkwy. & S. Wilcox St.	**Signal**				
a. EB L (Prot+Perm)		C	30.6	D	46.8
b. EB T		C	23.7	D	37.4
c. EB R (Free)		A	0.0	A	0.0
d. WB L (Prot+Perm)		C	21.4	C	27.2
e. WB T		C	33.9	D	36.7
f. WB R		C	24.9	C	26.3
g. NB L (Prot+Perm) (Dual)		C	20.7	C	22.7
h. NB T		C	24.0	C	29.5
i. NB R		C	22.7	C	27.6
j. SB L (Prot+Perm)		C	24.6	C	24.9
k. SB T		C	28.3	C	31.8
l. SB R		C	31.0	D	41.8
m. INTERSECTION		**C**	**27.7**	**C**	**34.4**

TABLE 2
2022 (EXISTING) CONDITIONS
SUMMARY OF QUEUING ANALYSIS

INTERSECTION (# OF LANES IN LANE GROUP)	EXISTING STORAGE (FT)	2022 EXISTING TRAFFIC QUEUE LENGTH (FT) 95TH%	
		AM PEAK	PM PEAK
1. Prairie Hawk Dr./E. Wolfensberger Rd.			
a. EB L (1)	325	65	46
b. EB TR (2)	1100	308	300
c. WB L (1)	150	94	77
d. WB T (2)	1850	150	277
e. WB R (1)	100	45	54
f. NB L (1)	250	6	22
g. NB TR (1)	250	45	85
h. SB L (1)	350	113	123
i. SB T (1)	875	32	33
j. SB R (1)	350	10	28
2. Prairie Hawk Dr./Atchison Way			
a. EB LR (1)	700	5	18
b. NB LT (1)	425	0	0
3. Prairie Hawk Dr./Topeka Way			
a. EB LTR (1)	200	3	5
b. WB LTR (1)	-	0	0
c. NB LTR (1)	1100	0	0
d. SB LTR (1)	430	8	5
4. Atchison Way/Topeka Way			
a. EB LT (1)	110	0	0
b. SB LR (1)	450	0	0
5. Plum Creek Pkwy./Coachline Rd./ W. Wolfensberger Rd.			
a. EB LT (1)	550	0	0
b. EB TR (1)	550	0	0
c. WB LT (1)	250	0	0
d. WB TR (1)	350	0	0
e. NB LT (1)	500	0	0
f. NB TR (1)	150	0	0
g. SB LT (1)	200	25	0
h. SB TR (1)	2450	25	0
6. Plum Creek Pkwy./Auburn Dr.			
a. EB LT (1)	800	0	0
b. SB LR (1)	275	18	18

INTERSECTION (# OF LANES IN LANE GROUP)	EXISTING STORAGE (FT)	2022 EXISTING TRAFFIC QUEUE LENGTH (FT) 95TH%	
		AM PEAK	PM PEAK
7. Plum Creek Pkwy./I-25 SB Ramps			
a. EB TR (3)	2700	270	273
b. WB L (1)	675	52	139
c. WB T (2)	350	65	165
d. NB L (1)	375	30	30
e. NB R (1)	750	59	52
f. SB L (2)	3300	388	1154
g. SB LTR (1)	225	236	730
8. Plum Creek Pkwy./I-25 NB Ramps			
a. EB L (1)	650	151	122
b. EB T (3)	480	644	500
c. WB TR (1)	625	605	413
d. WB R (1)	400	53	50
e. NB L (1)	400	40	48
f. NB LTR (1)	1700	41	85
g. NB R (1)	175	27	63
9. Plum Creek Pkwy./S. Wilcox St.			
a. EB L (1)	325	140	235
b. EB T (2)	1250	382	916
c. EB R (1)	600	0	0
d. WB L (1)	225	29	42
e. WB T (2)	880	604	621
f. WB R (1)	420	18	50
g. NB L (2)	450	256	305
h. NB T (1)	250	108	142
i. NB R (1)	250	15	30
j. SB L (1)	200	58	132
k. SB T (1)	200	91	121
l. SB R (1)	200	39	71

Legend

- Turn lane queue spills into thru lane
- Queue spills back into upstream intersection
- Through lane queue blocks LT lane
- Through lane queue blocks RT lane
- Through lane queue blocks LT & RT lanes

III. BACKGROUND TRAFFIC

A. Background Traffic Volumes

For the purposes of this study, background traffic volumes were developed incorporating the following methodology. The overall background traffic volumes used in this study are the result of combining two distinct components, “regional” and “local” traffic volumes. The “regional” background traffic volume component accounts for the larger scale traffic growth along the major roadways within the study area. The “regional” background traffic component utilizes regional travel planning models and documents in order to establish an average annual traffic volume growth rate on these roadways. The “local” background traffic volume component accounts for the influence of anticipated future development on properties within in the immediate study area that may not otherwise be captured by the “regional” component.

The background traffic models for the 2027 (build-out) and 2050 (long-term) analysis horizons for this study were developed as follows:

- 2027 (build-out) background traffic volumes - The 2027 (build-out) background traffic volumes were developed employing a two-step process. The first step of the process was to apply a “regional” background traffic growth factor to the 2022 (existing) traffic volumes to forecast the 2027 (build-out) “regional” background traffic volume component. Additionally, it was assumed that the I-25/Crystal Valley Pkwy. interchange (approximately two miles south of the I-25/Plum Creek Pkwy. interchange) will be constructed and in operation by 2027. The I-25/Crystal Valley Pkwy. interchange will serve to divert a portion of the traffic demand away from the I-25/Plum Creek Pkwy. interchange. This traffic volume was deducted after the 2027 (build-out) “regional” background traffic growth factor was applied to the 2022 (existing) traffic volumes. The following assumptions were used in developing the diverted traffic volumes:
    - It was assumed that 60% of the SB I-25/Plum Creek Pkwy. interchange ramp SB through volume will be diverted to the I-25/Crystal Valley Pkwy. interchange.
    - 30% of the SB I-25/Plum Creek Pkwy. interchange ramp SB LT volume will be diverted to the I-25/Crystal Valley Pkwy. interchange based on the proportion of EB RT volume on the EB approach to the Plum Creek Pkwy./Wilcox intersection.
    - 30% of the NB I-25/Plum Creek Pkwy. interchange ramp NB RT volume will be diverted to the I-25/Crystal Valley Pkwy. interchange based on the proportion of EB RT volume on the EB approach to the Plum Creek Pkwy./Wilcox intersection.
    - It was assumed that 10% of the SB I-25/Plum Creek Pkwy. interchange ramp NB RT volume will be diverted to the I-25/Crystal Valley Pkwy. interchange.

  The second step was to develop a “local” background traffic volume model component. It was assumed that there would be no anticipated new developments in place by the 2027 (build-out) analysis horizon that would contribute to the “local” background component.

  Combining the “regional” and “local” background traffic volume components results in the 2027 (build-out) background traffic volume forecast for this study.

- 2050 (long-term) background traffic volumes – The 2050 (long-term) background traffic volumes were developed employing the same two-step process as the 2027 (build-out) background traffic volumes. The first step applied a “regional” background traffic growth factor to the 2027 (build-out) traffic volumes after they were adjusted for the presence of the

I-25/Crystal Valley Pkwy. interchange to forecast the 2050 (long-term) "regional" background traffic volume component.

The second step was to develop the "local" background traffic volume model component for the 2050 (long-term) analysis horizon. This assumes the following:

- It was assumed that the proposed Miller's Landing development and associated roadway improvements will be fully built-out by the 2050 (long-term) analysis horizon. The traffic generated by the proposed Miller's Landing development was taken directly from *Figure 8c – Year 2040 Assignment of Total Site-Generated Traffic* in the study entitled, *Miller's Landing, Traffic Impact Analysis, Castle Rock Colorado, October 31, 2016*, by LSC Transportation Consultants, Inc. (*LSC Study*).
- It was assumed that the property south of Plum Creek Pkwy. (referred to herein as the Dawson Trails property), that will be accessed via the extension of the realigned Prairie Hawk Dr. (referred to as Dawson Trails Blvd.), will be fully developed by the 2050 (long-term) analysis horizon. The trips generated by this area were developed based on *Figure 10 – 2040 Full Build Traffic Forecasts with all Base Assumption Projects* in the *Town of Castle Rock Transportation Master Plan, October 2017 (CRTMP).*
- It was assumed that the anticipated Castle Meadows development and associated roadway improvements will be in place prior to the 2050 (long-term) analysis horizon. The proposed Castle Meadows development was assumed to consist of 960 multi-family dwelling units, with approximately 30% of these dwelling units being built within the Millers Landing property. In addition, it was assumed that access will be provided via the proposed East/West Collector roadway.

Combining the "regional" and "local" background traffic volume components results in the 2050 (long-term) background traffic volume forecast for this study.

More specifically, the following describes the development of the 2027 (build-out) and 2050 (long-term) analysis horizons background traffic models.

- "Regional" Background Traffic Volumes:
  - Based on the current DRCOG 2020 and 2050 travel models for the roadways within the study area, Plum Creek Pkwy. and Wolfensberger Rd. are forecasting an average annual traffic volume growth rate (AGR) of approximately 0.61% and 1.1%, respectively. Based on this data an AGR of 1% was employed for all of the existing study area roadways. An AGR of 1% results in a 5-year (2022 to 2027) growth factor of 1.051 and a 23-year (2027 to 2050) growth factor of 1.257.
  - The appropriate AGR factors were applied to the 2022 (existing) traffic volumes in order to develop the forecast 2027 (build-out) and 2050 (long-term) "regional" background traffic volumes.
  - For the purposes of this study, it was assumed that the distribution of the regional intersection approach traffic (left turn, through, right turn) will remain static through the 2045 (long-term) analysis horizon.
  - Figure 5 graphically illustrates the forecast 2027 (build-out) analysis horizon "regional" background traffic volumes on the study area roadways and intersections.
  - Figure 6 graphically illustrates the forecast 2050 (long-term) analysis horizon "regional" background traffic volumes on the study area roadways and intersections.

- "Local" Background Traffic Volumes:
  - Since it is not anticipated that there would be any new developments in place by the 2027 (build-out) analysis horizon that would contribute to the "local" background component, a 2027 (build-out) analysis horizon "local" background traffic volume component was not developed.
  - A "local" background traffic component was developed for the 2050 (long-term) analysis horizon background traffic models based on the anticipated Miller's Landing development, Dawson Trails property development, and Castle Meadows multi-family development, as described above.
  - The proposed Miller's Landing development is situated immediately to the west of the proposed Brickyard development between the Industrial Tributary on the north, Plum Creek Pkwy. and the Industrial Tributary on the east , and Plum Creek Pkwy. to the south. The forecast site traffic generated by the proposed Miller's Landing development was assigned to the study area roadways and intersections utilizing the *LSC Study*, referenced above. For the 2050 (long-term) analysis horizon, the traffic generated by the anticipated full build-out of the proposed Miller's Landing development was taken directly from *Figure 8c – Year 2040 Assignment of Total Site-Generated Traffic* of the *LSC Study*.
  - The Dawson Trails property is situated to the west of I-25 south of Plum Creek Pkwy. to Tomah Rd. This property is assumed to have its primary northern access point via the extension of the realigned Prairie Hawk Dr. (referred to as Dawson Trails Blvd.) south from Plum Creek Pkwy. Other access points to the south will include the Tomah Rd./I-25 Interchange and the future I-25/Crystal Valley Pkwy. Interchange. The traffic forecast to be generated by the Dawson Trails property that would utilize the proposed Plum Creek Pkwy./Prairie Hawk Dr./Dawson Trails Blvd. intersection and the other study area roadways and intersections was developed as follows:
    - It was assumed that the Dawson Trails property will be fully developed by the 2050 (long-term analysis horizon.
    - Based on the *CRTMP, Figure 10 – 2040 Full Build Traffic Forecasts with all Base Assumption Projects*, Dawson Trails Blvd. is forecast to have an AADT of 37,200vpd between Plum Creek Pkwy. and Tomah Rd. Assuming that 25% of this traffic would access the Dawson Trails property via the proposed Plum Creek Pkwy./Prairie Hawk Dr./Dawson Trails Blvd. intersection it was projected that Dawson Trails Blvd. just south of the intersection would have an AADT of 9,300vpd. Assuming a "K" factor (proportion of AADT occurring in the peak hour) of 0.085 and a "D" factor (proportion of peak hour traffic in the peak direction) of 0.6 it was projected that Dawson Trails Blvd. just south of Plum creek Pkwy. would have an a.m. peak hour volume of 474vph northbound and 316vph southbound. During the p.m. peak hour, it was projected that Dawson Trails Blvd. just south of Plum creek Pkwy. would have a volume of 316vph northbound and 474vph southbound.
    - The projected peak hour traffic volumes on the proposed Dawson Trails Blvd. just south of Plum Creek Pkwy. was distributed to the study area roadways and intersections utilizing the same proportional distributions as the proposed Miller's Landing development site generated traffic.
  - The Castle Meadows property is situated immediately to the south of the proposed Brickyard development site, west of I-25, north of Plum Creek Pkwy., and east of the

proposed Miller's Landing development site. The traffic projected to be generated by Castle Meadows property was developed and distributed to the study area roadways and intersections as follows:

- It was assumed that the Castle Meadows property will be fully built out by the 2050 (long-term) analysis horizon as a 960-unit multi-family development, with approximately 30% of these dwelling units being built within the Millers Landing property.
- Traffic generated by the assumed Castle Meadows development was distributed to the study area roadways and intersections via the proposed East/West Collector roadway.

  - Figure 7 graphically illustrates the forecast 2050 (long-term) analysis horizon "local" background traffic volumes on the study area roadways and intersections, respectively.

- 2027 (build-out) Total Background Traffic Volumes:
  - The 2027 (build-out) total background traffic volumes for this study are the sum of the 2027 (build-out) "regional" background traffic volumes plus the 2027 (build-out) "local" background traffic volumes. Figure 8 graphically illustrates the 2027 (build-out) total background traffic volumes on the study area roadways and intersections.

- 2050 (Long-Term) Total Background Traffic Volumes
  - The 2050 (long-term) total background traffic volumes for this study are the sum of the 2050 (long-term) "regional" background traffic volumes plus the 2050 (long-term) "local" background traffic volumes. Figure 9 graphically illustrates the 2050 (long-term) total background traffic volumes on the study area roadways and intersections.

B. Background Traffic Roadway System

It was assumed that the existing roadway network within the study area of the proposed Brickyard development will be modified by the 2027 (build-out) and 2050 (long-term) analysis horizons as follows:

- **Study Area Roadways:**
  - **Prairie Hawk Dr. (Realignment)**
    - 2027 (Build-Out) Analysis Horizon – A new two-lane roadway (known as Praxis St.) will be constructed to extend west from the property boundary at the west site access intersection, then curve south at the future 2-lane roundabout location to intersect with Plum Creek Pkwy. at the Dawson Trails Blvd. intersection.
    - 2050 (Long-Term) Analysis Horizon – By 2050, Prairie Hawk Dr. is anticipated to be realigned and modified, per the CRTMP, from Wolfensberger Rd. south along its existing alignment and the existing Atchison Way alignment to the intersection of Topeka Way. From Wolfensberger Rd. to Atchison Way, the roadway section will be a 4-lane major arterial. From Atchison Way to Topeka Way, the roadway section will be a 2-lane minor arterial. From Topeka Way, the alignment will continue south through the Miller's Landing property to the proposed roundabout intersection with the proposed West Site Access Roadway for The Brickyard

development. From Topeka Way to Plum Creek Pkwy., the roadway section will be a 4-lane arterial.

- **Plum Creek Pkwy.**
  - 2027 (Build-Out) Analysis Horizon – It is not anticipated that any operational or capacity improvements will be made to Plum Creek Pkwy. within the study area through the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that Plum Creek Pkwy. will be improved to a 4-lane major arterial roadway from Wolfensberger Rd. to I-25 based on the CRTMP. It is also anticipated that a continuous westbound acceleration/deceleration lane from the I-25 SB Ramp intersection to the new Praxis St. intersection will be constructed. This lane will terminate into a free right turn lane at Praxis St. There will also be a continuous 3rd eastbound travel lane from the Praxis St. intersection to Wilcox St.
- **Wolfensberger Rd.**
  - 2027 (Build-Out) Analysis Horizon – By the 2027 (build-out) analysis horizon, the developer shall participate in funding the design and construction of the improvements to increase the available storage of the WB left turn lane from 150 feet to 225 feet at the Prairie Hawk Dr. intersection in order to accommodate the projected queue as a result of the addition of the Brickyard development site generated traffic. It is not anticipated that any other operational or capacity improvements will be made to Wolfensberger Rd. within the study area through the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that Wolfensberger Rd. will be improved, within the study area, to a 4-lane major arterial roadway from Plum Creek Pkwy. to Prairie Hawk Dr. based on the CRTMP.
- **Dawson Trails Blvd.**
  - 2027 (Build-Out) Analysis Horizon – By the 2027 (build-out) analysis horizon, it is assumed that with the construction of the Crystal Valley Interchange, an access roadway south of Plum Creek Pkwy. will be constructed to provide access at the new Praxis St./Plum Creek Pkwy intersection.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that Dawson Trails Blvd. will be fully in place as a 4-lane major arterial roadway extending south from the Plum Creek Pkwy./Praxis St. intersection based on the CRTMP.
- **East/West Collector**
  - 2027 (Build-Out) Analysis Horizon – It is assumed that the East/West Collector will not be constructed by the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the East/West Collector will be constructed as a 2-lane collector extending east from Praxis St. along the southern boundary of the proposed Brickyard development site. There is potential that this roadway may be connected to the existing Prairie Hawk Dr. at its southern terminus to provide emergency vehicle access only. No further connection is anticipated.

- **Study Area Intersections:**
  - **(1) Wolfensberger Rd./Prairie Hawk Dr.**
    - 2027 (Build-Out) Analysis Horizon – By the 2027 (build-out) analysis horizon, the developer shall participate in funding the design and construction of the improvements to increase the available storage of the WB left turn lane from 150 feet to 225 feet at the Prairie Hawk Dr. intersection in order to accommodate the projected queue as a result of the addition of the Brickyard development site generated traffic. No other major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be modified as follows in order to accommodate the anticipated Prairie Hawk Dr. roadway improvements. The intersection will remain under actuated/coordinated traffic signal control. The east leg of the intersection will be modified so that the westbound left turn storage length is increased to 225 feet. No other modifications will be made to the east leg. The west leg of the intersection will have one left turn lane, two through lanes, and one right turn lane on the eastbound approach, and two westbound departure lanes. The north leg of the intersection will have dual left turn lanes, one through lane and one shared through/right turn lane on the southbound approach, and two northbound departure lanes. The south leg of the intersection will have one left turn lane, two through lanes and one right turn lane on the northbound approach, and two southbound departure lanes.
  - **(2) Prairie Hawk Dr./Atchison Way**
    - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be reconstructed as a 1-lane roundabout to accommodate the anticipated Prairie Hawk Dr. roadway realignment and improvements. The intersection will have yield control on the eastbound, northbound, and southbound approaches. The west leg of the intersection will have one shared left turn/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one through lane and one free-flow bypass right turn lane on the southbound approach, and two northbound departure lanes. The south leg of the intersection will have one bypass through lane on the northbound approach, and one southbound departure lane.
  - **(3) Prairie Hawk Dr./Topeka Way**
    - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2050 (long-term) analysis horizon.
  - **(4) Atchison Way/Topeka Way**
    - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be modified as follows in order to accommodate the anticipated Prairie Hawk Dr. roadway realignment and improvements. The intersection will have two-way stop control on the eastbound and westbound approaches. The east leg of the intersection will have one left

turn lane and one shared through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one left turn lane and one shared through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one left turn lane, and one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane, one through lane and one right turn lane on the northbound approach, and two southbound departure lanes.

- **(5) Wolfensberger Rd./Plum Creek Pkwy./Coachline Rd.**
  - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2050 (long-term) analysis horizon.
- **(6) Plum Creek Pkwy./Auburn Dr.**
  - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be modified as follows in order to accommodate the anticipated Plum Creek Pkwy. roadway improvements. The intersection will have stop control on the southbound approach. The east leg of the intersection will have one right turn lane and two through lanes on the westbound approach, and two eastbound departure lanes. The west leg of the intersection will have one left turn lane and two through lanes on the eastbound approach, and two westbound departure lanes. The north leg of the intersection will have one shared left turn/right turn lane on the southbound approach, and one northbound departure lane.
- **(7) Plum Creek Pkwy./I-25 SB Ramps**
  - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be modified as follows. The northbound lanes will be removed at this intersection. The east leg of the intersection will remain unchanged. The west leg of the intersection will be modified to have three through lanes and a continuous free flow right turn lane with a raised channelizing island on the eastbound approach. The north leg will be modified to have dual left turn lanes, a shared left turn/through lane and a free flow right turn lane with a raised channelizing island on the southbound approach. The south leg will be modified to have only one southbound departure lane. Due to the westbound left turn queues at this intersection exceeding the capacity under the I-25 bridge, additional queueing capacity is needed beyond the northbound ramp intersection.
- **(8) Plum Creek Pkwy./I-25 NB Ramps**
  - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be modified as follows. The east leg of the intersection will be modified to have one dedicated right turn lane, one shared through/right turn lane, one through lane, and one through lane that will accommodate the queuing needed for the left turn lane at the adjacent SB ramp

intersection. The west leg of the intersection will be modified to include a second eastbound left turn lane to access northbound I-25. The north leg will be modified to have an additional northbound departure lane. The south leg will remain unchanged. Constructing these additional lanes will require widening Plum Creek Pkwy. to accommodate the additional roadway width needed.

- **(9) Plum Creek Pkwy./Wilcox St.**
  - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon, it is anticipated that the westbound right turn lane will be converted into a shared through/right turn lane. It is also recommended that right turn overlap be implemented for the northbound and southbound right turn movements. These modifications would help alleviate queueing issues and mitigate the potential operational issues for these movements in the 2050 (long-term) analysis horizon.
- **(10) Prairie Hawk Dr./Praxis St./West Site Access**
  - 2027 (Build-Out) Analysis Horizon – This intersection is not anticipated to be constructed by the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (Long-Term) analysis horizon it is anticipated that this intersection will constructed be as follows. The intersection is assumed to be a four-legged two-lane roundabout under yield control on all four approaches. The east and west legs of the roundabout will have one approach/entry lane and one departure/exit lane. The north and south legs of the roundabout will have two approach/entry lanes and two departure/exit lanes.
- **(11) Plum Creek Pkwy./Praxis St./Dawson Trails Blvd.**
  - 2027 (Build-Out) Analysis Horizon – The intersection is anticipated to be constructed by the 2027 (build-out) analysis horizon to include the following. The intersection will operate under traffic signal control with permitted left turn phasing on the northbound and southbound approaches and protected plus permitted phasing on the eastbound and westbound approaches. The east leg of the intersection will have one left turn lane with approximately 200 feet of storage, one through lane and one right turn lane with 100’ feet of storage on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one left turn lane with 150 feet of storage and one shared through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one left turn lane with 250’ feet of storage and one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane with a minimum of 100 feet of storage and one shared through/right turn lane on the northbound approach, and one southbound departure lane. The south leg of the intersection will be constructed by others as Dawson Trails Blvd. to provide access from the Crystal Valley interchange.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (Long-Term) analysis horizon it is anticipated that the following modifications will be made. The intersection will remain under actuated/coordinated traffic signal control. The east leg of the intersection will have dual left turn lanes, two through lanes and one continuous free-flow right turn lane on the westbound approach, and two eastbound departure lanes plus a northbound to eastbound right turn acceleration lane. The west leg of the intersection will have one left turn lane, two through lanes and

one right turn lane on the eastbound approach, and two westbound departure lanes. The north leg of the intersection will have dual left turn lanes, two through lanes and one right turn lane on the southbound approach, and two northbound departure lanes plus a westbound to northbound right turn auxiliary lane. The south leg of the intersection will be modified to have one left turn lane, two through lanes and one channelized continuous free-flow right turn lane on the northbound approach, and two southbound departure lanes.

- **(12) Prairie Hawk Dr./East/West Collector**
  - 2027 (Build-Out) Analysis Horizon – This intersection is not anticipated to be constructed by the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (Long-Term) analysis horizon it is anticipated that this intersection will be constructed to accommodate the Castle Meadows development. The intersection will be limited to a three-quarter movement access intersection. The intersection will be a "T" intersection with stop sign control on the east leg. The east leg of the intersection will have one right turn lane on the westbound approach, and one eastbound departure lane. The north leg of the intersection will have one left turn lane, two through lanes on the southbound approach, and two northbound departure lanes. The south leg of the intersection will have two through lanes and one channelized continuous free-flow right turn lane on the northbound approach, and two southbound departure lanes.

C. Background Traffic Operational Analysis

The following study area intersections were analyzed for the 2027 (build-out) and 2050 (long-term) total background traffic analysis horizons in order to provide a basis for comparison of their operational characteristics with and without the proposed Brickyard development:

1. Wolfensberger Rd./Prairie Hawk Dr. (Signalized)
2. Prairie Hawk Dr./Atchison Way (TWSC)
3. Prairie Hawk Dr./Topeka Way (TWSC)
4. Atchison Way/Topeka Way (TWSC)
5. Wolfensberger Rd./Plum Creek Pkwy./Coachline Rd. (2-Lane Roundabout)
6. Plum Creek Pkwy./Auburn Dr. (TWSC)
7. Plum Creek Pkwy./SB I-25 Ramps (Signalized)
8. Plum Creek Pkwy./NB I-25 Ramps (Signalized)
9. Plum Creek Pkwy./Wilcox St. (Signalized)
10. Prairie Hawk Dr./Praxis St./West Site Access (Proposed Roundabout)
11. Plum Creek Pkwy./Praxis St./Dawson Trails Blvd. (Proposed)
12. Praxis St./East/West Collector

The results of the background traffic operational analyses are summarized graphically for the 2027 (build-out) and 2050 (long-term) background traffic analysis horizons in Figures 10 and 11, respectively. A summary of the results of the intersection capacity analyses is provided in Table 3 and detailed *Synchro 12* software intersection capacity analysis reports in Appendix "C".

As shown in Table 3, all of the existing study area intersections as well as all of their individual lane groups are projected to operate at acceptable levels of service (LOS "D" or better), overall, during the 2027 (build-out) and 2050 (long-term) analysis horizon background traffic scenarios with the exception of the following:

- (6) Plum Creek Pkwy./Auburn Dr.
  - By the 2050 (long-term) analysis horizon, the southbound shared left turn/right turn lane is projected to experience a poor level of service (LOS “E”) during the p.m. peak hour.
- (8) Plum Creek Pkwy./NB I-25 Ramps
  - By the 2050 (long-term) analysis horizon, the westbound shared through/right turn lane is projected to experience a failing level of service (LOS “F”) during the p.m. peak hour.

D. Background Traffic Queuing Analysis

Queue lengths and associated storage requirements for auxiliary lanes (turn bays) at the existing study area intersections were computed for the 2027 (build-out) and 2050 (long-term) analysis horizon background traffic scenarios. Table 4 provides a summary of this analysis and comparison to the actual vehicle storage lengths provided for each of the existing study area intersections.

As shown in Table 4, there are no queue related issues projected to be experienced at the study area intersections based on the reported queues in the 2027 (build-out) and 2050 (long-term) analysis horizon background traffic analysis scenarios with the exception of the following:

- (1) Wolfensberger Rd./Prairie Hawk Dr.
  - 2027 (Build-Out) Analysis Horizon - During the p.m. peak hour the WB through lane group queue is projected to block the WB RT Lane group.
  - 2050 (Long-Term) Analysis Horizon – During the p.m. peak hour the WB through lane group queue is projected to continue to block the WB RT Lane group.
- (7) Plum Creek Pkwy./SB I-25 Ramps
  - 2027 (Build-Out) Analysis Horizon – During the p.m. peak hour, the SB left turn lane group queue is projected to block the shared left turn/through/right turn lane group, and the SB shared left turn/through/right turn lane group queue is projected to spill back into the SB left turn lane group.
  - 2050 (Long-Term) Analysis Horizon – During the a.m. peak hour, the WB through lane group queue is projected to spill back into the upstream intersection. During the p.m. peak hour, the SB left turn lane group queue is projected to block the shared left turn/through/right turn lane group, and the SB shared left turn/through/right turn lane group queue is projected to spill back into the SB left turn lane group. Additional queuing capacity will be needed on the east and north legs of the intersection in order to help alleviate the projected queuing issues.
- (8) Plum Creek Pkwy./NB I-25 Ramps
  - 2027 (Build-Out) Analysis Horizon - During the p.m. peak hour the WB shared through/right turn lane group queue is projected to spill back into the upstream intersection.
  - 2050 (Long-Term) Analysis Horizon – During the p.m. peak hour, the EB through lane group queue and WB shared through/right turn lane group queue are both projected to spill back into the upstream intersection. Additional queuing capacity will be needed on the east and west legs of the intersection in order to help alleviate the projected queuing issues.

- (9) Plum Creek Pkwy./Wilcox St.
  - 2027 (Build-Out) Analysis Horizon - During the p.m. peak hour, the EB through lane group queue is projected to block the EB left turn lane group and the WB through lane group queue is projected to block the WB left turn lane group.
  - 2050 (Long-Term) Analysis Horizon – During both the a.m. and p.m. peak hours the EB left turn lane queue is projected to spill back into the through lane group. During the p.m. peak hour, the EB through lane queue is projected to block the left turn lane group. During both the a.m. and p.m. peak hours the WB through lane group queue is projected to block the WB left turn lane group. During the p.m. peak hour, the NB left turn lane queue is projected to spill back into the NB through lane group and the SB left turn lane queue is projected to spill back into the SB through lane group.

TABLE 3
2027 (BUILD-OUT) & 2050 (LONG-TERM) BACKGROUND TRAFFIC
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2027 BACKGROUND TRAFFIC				2050 BACKGROUND TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
1. Prairie Hawk Dr. & E. Wolfensberger Rd.	**Signal**								
a. EB L (Prot+Perm)		C	28.7	C	33.9	C	25.8	C	32.3
b. EB TR		D	39.1	D	41.6	-	-	-	-
c. EB T		-	-	-	-	D	35.9	D	41.1
d. EB R		-	-	-	-	C	29.4	C	34.9
e. WB L (Prot+Perm)		C	29.4	D	35.0	C	29.2	C	32.8
f. WB T		C	31.0	D	39.3	C	26.3	C	32.0
g. WB R		C	34.4	D	43.3	C	29.3	C	34.1
h. NB L (Prot+Perm)		B	15.4	B	12.4	C	20.2	B	16.3
i. NB TR		B	17.2	B	17.5	-	-	-	-
j. NB T		-	-	-	-	C	21.7	B	19.0
k. NB R		-	-	-	-	C	28.7	C	27.0
l. SB L (Prot+Perm)		B	14.1	B	11.2	-	-	-	-
m. SB L (Prot+Perm) (Dual)		-	-	-	-	B	16.9	B	15.3
n. SB T		B	12.9	B	10.9	-	-	-	-
o. SB R		B	13.0	B	11.8	-	-	-	-
p. SB TR		-	-	-	-	B	18.6	B	18.2
q. INTERSECTION		**C**	**29.1**	**C**	**30.4**	**C**	**27.3**	**C**	**28.9**
2. Prairie Hawk Dr. & Atchison Way	**TWSC**								
a. EB LR	Stop	A	9.9	B	10.9	-	-	-	-
b. NB LT		A	7.6	A	7.6	-	-	-	-
c. INTERSECTION		**A**	**1.7**	**A**	**4.0**	**-**	**-**	**-**	**-**
2.A. Prairie Hawk Dr. & Atchison Way	**Roundabout**								
a. EB LR	Yield	-	-	-	-	A	5.8	A	6.4
b. NB T	Free	-	-	-	-	A	4.3	A	5.6
c. SB T	Yield	-	-	-	-	A	3.7	A	3.5
d. SB R	Free	-	-	-	-	A	0.0	A	0.0
e. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**3.3**	**A**	**4.0**
3. Prairie Hawk Dr. & Topeka Way	**TWSC**								
a. EB LTR	Stop	A	7.2	A	7.2	A	7.3	A	7.4
b. WB LTR	Stop	A	7.4	A	7.3	A	0.0	A	0.0
c. NB LTR		A	9.1	A	9.3	A	9.9	B	10.9
d. SB LTR		A	8.4	A	8.4	A	9.1	A	9.2
e. INTERSECTION		**A**	**3.5**	**A**	**5.8**	**A**	**8.2**	**A**	**7.9**

TABLE 3 (CONTINUED)
2027 (BUILD-OUT) & 2050 (LONG-TERM) BACKGROUND TRAFFIC
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2027 BACKGROUND TRAFFIC				2050 BACKGROUND TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
4. Atchison Way & Topeka Way	**TWSC**								
a. EB LT		A	7.3	A	7.3	-	-	-	-
b. EB L	Stop	-	-	-	-	B	12.7	B	11.8
c. EB TR	Stop	-	-	-	-	B	12.4	B	12.1
d. WB L	Stop	-	-	-	-	B	12.7	B	13.1
e. WB TR	Stop	-	-	-	-	B	12.7	B	11.5
f. NB L		-	-	-	-	A	0.0	A	0.0
g. SB LR	Stop	A	8.5	A	8.6	-	-	-	-
h. SB L		-	-	-	-	A	0.0	A	7.7
i. INTERSECTION		**A**	**1.3**	**A**	**2.1**	**A**	**2.0**	**A**	**3.7**
5. Plum Creek Pkwy./Coachline Rd. & W. Wolfensberger Rd.	**Roundabout**								
a. EB LT	Yield	A	4.9	A	4.5	A	8.9	A	6.7
b. EB TR	Yield	A	4.6	A	4.2	A	8.5	A	6.4
c. WB LT	Yield	A	3.7	A	4.8	A	5.1	A	7.2
d. WB TR	Yield	A	3.5	A	4.6	A	5.0	A	6.9
e. NB LT	Yield	A	4.4	A	4.5	A	7.7	A	7.0
f. NB TR	Yield	A	4.1	A	4.3	A	7.1	A	6.6
g. SB LT	Yield	A	4.4	A	4.5	A	6.9	A	7.1
h. SB TR	Yield	A	4.3	A	4.4	A	6.6	A	6.6
i. INTERSECTION		**A**	**4.3**	**A**	**4.5**	**A**	**7.0**	**A**	**6.8**
6. Plum Creek Pkwy. & Auburn Dr.	**TWSC**								
a. EB LT		A	7.6	A	8.2	-	-	-	-
b. EB L		-	-	-	-	A	8.5	A	9.5
c. SB LR	Stop	B	13.0	C	15.5	D	28.3	E	35.4
d. INTERSECTION		**A**	**2.5**	**A**	**1.9**	**A**	**3.1**	**A**	**2.9**
7. Plum Creek Pkwy. & I-25 SB Ramps	**Signal**								
a. EB TR		D	40.5	D	42.7	-	-	-	-
b. EB T		-	-	-	-	C	30.3	D	51.1
c. EB R (Free)		-	-	-	-	A	0.0	A	0.0
d. WB L (Prot+Perm)		D	42.9	D	40.4	C	32.1	D	43.7
e. WB T		B	19.3	B	14.0	B	17.9	B	14.4
f. NB L (Prot)		D	54.1	D	54.1	-	-	-	-
g. NB R		A	4.3	A	7.7	-	-	-	-
h. SB L (Prot) (Dual)		A	6.3	B	10.1	C	20.1	D	40.0
i. SB LTR		A	9.3	B	14.1	-	-	-	-
j. SB LT		-	-	-	-	C	27.2	C	33.4
k. SB R (Free)		-	-	-	-	A	0.0	A	0.0
l. INTERSECTION		**C**	**22.9**	**C**	**21.0**	**C**	**24.6**	**D**	**36.0**
8. Plum Creek Pkwy. & I-25 NB Ramps	**Signal**								
a. EB L (Prot+Perm)		D	42.3	D	36.7	-	-	-	-
b. EB L (Prot+Perm) (Dual)		-	-	-	-	D	37.3	D	42.6
c. EB T		A	5.3	A	6.1	A	6.7	A	6.9
d. WB TR		D	40.8	C	33.7	C	33.5	F	59.7
e. WB R		C	31.7	D	38.9	D	42.6	C	27.9
f. NB L (Prot)		C	28.8	C	29.0	D	43.9	D	42.4
g. NB LTR		C	28.8	C	29.0	D	43.9	D	42.4
h. NB R		C	30.0	C	30.1	D	40.7	D	40.8
i. INTERSECTION		**C**	**27.4**	**C**	**24.4**	**C**	**30.2**	**C**	**28.6**

TABLE 3 (CONTINUED)
2027 (BUILD-OUT) & 2050 (LONG-TERM) BACKGROUND TRAFFIC
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2027 BACKGROUND TRAFFIC				2050 BACKGROUND TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
9. Plum Creek Pkwy. & S. Wilcox St.	**Signal**								
a. EB L (Prot+Perm)		C	34.1	D	40.1	D	46.5	D	46.9
b. EB T		C	24.1	D	35.7	C	31.9	D	42.2
c. EB R (Free)		A	0.0	A	0.0	A	0.0	A	0.0
d. WB L (Prot+Perm)		C	21.8	C	27.2	B	19.5	D	38.3
e. WB T		D	38.4	D	40.1	-	-	-	-
f. WB R		C	25.4	C	26.4	-	-	-	-
g. WB TR		-	-	-	-	D	37.9	D	42.3
h. NB L (Prot+Perm) (Dual)		C	23.0	C	25.4	D	38.5	D	48.4
i. NB T		C	24.1	C	31.7	D	35.1	D	39.8
j. NB R		C	22.8	C	29.6	-	-	-	-
k. NB R (Perm+ov)		-	-	-	-	C	28.9	C	31.8
l. SB L (Prot+Perm)		C	21.4	C	24.7	C	31.9	D	51.7
m. SB T		C	24.7	C	31.5	D	37.7	D	52.7
n. SB R		C	27.0	D	41.9	-	-	-	-
o. SB R (Perm+ov)		-	-	-	-	C	29.2	D	43.8
p. INTERSECTION		**C**	**29.6**	**C**	**34.7**	**C**	**28.0**	**D**	**43.3**
10. Prairie Hawk Dr./Praxis St./West Site Access	**Roundabout**								
a. EB LTR	Yield	-	-	-	-	A	4.4	A	3.8
b. WB LTR	Yield	-	-	-	-	A	3.6	A	3.4
c. NB LT	Yield	-	-	-	-	A	4.0	A	3.8
d. NB TR	Yield	-	-	-	-	A	3.8	A	3.7
e. SB LT	Yield	-	-	-	-	A	3.5	A	3.6
f. SB TR	Yield	-	-	-	-	A	3.4	A	3.5
g. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**3.9**	**A**	**3.7**
11. Plum Creek Pkwy. & Praxis St./Dawson Trails Blvd.	**Signal**								
a. EB L (Prot+Perm)		-	-	-	-	C	25.2	C	24.0
b. EB T		-	-	-	-	C	33.6	D	39.7
c. EB R		-	-	-	-	C	26.3	C	26.8
d. WB L (Prot+Perm) (Dual)		-	-	-	-	C	23.9	C	24.7
e. WB T		-	-	-	-	C	33.4	C	29.5
f. WB R (Free)		-	-	-	-	A	0.0	A	0.0
g. NB L (Prot+Perm)		-	-	-	-	B	14.4	B	18.3
h. NB T		-	-	-	-	C	25.3	C	26.2
i. NB R (Free)		-	-	-	-	A	0.0	A	0.0
j. SB L (Prot+Perm) (Dual)		-	-	-	-	B	14.8	B	14.9
k. SB T		-	-	-	-	C	25.4	C	22.3
l. SB R		-	-	-	-	C	27.9	C	24.6
m. INTERSECTION		**-**	**-**	**-**	**-**	**C**	**27.9**	**C**	**28.5**
12. Praxis St. & East/West Collector	**TWSC**								
a. WB R	Stop	-	-	-	-	B	13.1	B	10.2
b. SB L		-	-	-	-	A	9.2	A	8.4
c. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**2.0**	**A**	**1.3**

TABLE 4
2027 (BUILD-OUT) & 2050 (LONG-TERM) BACKGROUND TRAFFIC
SUMMARY OF QUEUING ANALYSIS

INTERSECTION (# OF LANES IN LANE GROUP)	EXISTING/PROPOSED STORAGE (FT)	2027 BACKGROUND TRAFFIC QUEUE LENGTH (FT) 95TH%		2050 BACKGROUND TRAFFIC QUEUE LENGTH (FT) 95TH%	
		AM PEAK	PM PEAK	AM PEAK	PM PEAK
1. Prairie Hawk Dr./E. Wolfensberger Rd.					
a. EB L (1)	325	63	51	62	48
b. EB TR (2)	1100	319	304	-	-
c. EB T (2)	1100	-	-	367	355
d. EB R (1)	150	-	-	12	13
e. WB L (1)	225	91	88	128	151
f. WB T (2)	1850	156	310	163	344
g. WB R (1)	100	50	58	47	56
h. NB L (1)	250	7	20	16	41
i. NB TR (1)	250	49	79	-	-
j. NB T (2)	500	-	-	108	146
k. NB R (1)	150	-	-	63	74
l. SB L (1/2)	350/700	130	115	178	176
m. SB T (1)	875	36	31	-	-
n. SB R (1)	350	10	19	-	-
o. SB TR (2)	1225	-	-	133	125
2. Prairie Hawk Dr./Atchison Way (TWSC)					
a. EB LR (1)	700	5	20	-	-
b. NB LT (1)	425	0	0	-	-
2.A. Prairie Hawk Dr./Atchison Way (Roundabout)					
a. EB LR (1)	700	-	-	25	50
b. NB T (1)	425	-	-	25	25
c. SB T (1)	125	-	-	0	0
d. SB R (1)	150	-	-	0	25
3. Prairie Hawk Dr./Topeka Way					
a. EB LTR (1)	200	3	8	3	5
b. WB LTR (1)	-	0	0	0	0
c. NB LTR (1)	1100	0	0	13	8
d. SB LTR (1)	430	0	0	15	13
4. Atchison Way/Topeka Way					
a. EB LT (1)	150	0	0	-	-
b. EB L (1)	150	-	-	0	3
c. EB TR (1)	-	-	-	3	5
d. WB L (1)	150	-	-	5	13
e. WB TR (1)	-	-	-	5	5
f. NB L (1)	150	-	-	0	0
g. SB LR (1)	-	0	0	-	-
h. SB L (1)	150	-	-	0	0
5. Plum Creek Pkwy./Coachline Rd./W. Wolfensberger Rd.					
a. EB LT (1)	550	0	0	50	25
b. EB TR (1)	550	0	0	50	25
c. WB LT (1)	250	0	0	25	25
d. WB TR (1)	350	0	0	25	25
e. NB LT (1)	500	0	0	25	25
f. NB TR (1)	150	0	0	25	25
g. SB LT (1)	200	25	0	25	25
h. SB TR (1)	2450	25	25	25	25
6. Plum Creek Pkwy./Auburn Dr.					
a. EB LT (1)	800	0	0	-	-
b. EB L (1)	150	-	-	0	0
c. SB LR (1)	275	18	20	70	70

INTERSECTION (# OF LANES IN LANE GROUP)	EXISTING/PROPOSED STORAGE (FT)	2027 BACKGROUND TRAFFIC QUEUE LENGTH (FT) 95TH%		2050 BACKGROUND TRAFFIC QUEUE LENGTH (FT) 95TH%	
		AM PEAK	PM PEAK	AM PEAK	PM PEAK
7. Plum Creek Pkwy./I-25 SB Ramps					
a. EB TR (3)	2700	278	339	-	-
b. EB T (3)	2700	-	-	770	1278
c. EB R (1)	-	-	-	0	0
d. WB L (1)	675	139	208	204	289
e. WB T (2)	350	181	236	409	331
f. NB L (1)	375	31	31	-	-
g. NB R (1)	750	48	58	-	-
h. SB L (2)	3300	298	502	315	886
i. SB LTR (1)	225	179	318	-	-
j. SB LT (1)	225	-	-	203	551
k. SB R (1)	-	-	-	0	0
8. Plum Creek Pkwy./I-25 NB Ramps					
a. EB L (1/2)	650/800	145	121	464	341
b. EB T (3)	480	191	311	379	576
c. WB TR (1/2)	625/820	592	696	451	1269
d. WB R (1)	400	61	73	131	325
e. NB L (1)	400	43	52	235	191
f. NB LTR (1)	1700	37	39	234	196
g. NB R (1)	175	29	32	90	86
9. Plum Creek Pkwy./S. Wilcox St.					
a. EB L (1)	325	193	269	333	454
b. EB T (2)	1250	447	1028	295	1623
c. EB R (1)	600	0	0	0	0
d. WB L (1)	225	34	45	33	80
e. WB T (2)	880	718	697	-	-
f. WB R (1)	420	39	28	-	-
g. WB TR (3)	1300	-	-	1119	1193
h. NB L (2)	450	246	314	438	570
i. NB T (1)	250	104	146	154	195
j. NB R (1)	250	15	32	15	23
k. SB L (1)	200	55	135	85	246
l. SB T (1)	200	76	110	117	171
m. SB R (1)	200	46	63	111	153
10. Prairie Hawk Dr./Praxis St./West Site Access					
a. EB LTR (1)	-	-	-	25	0
b. WB LTR (1)	-	-	-	0	0
c. NB LT (1)	-	-	-	0	0
d. NB TR (1)	-	-	-	0	0
e. SB LT (1)	-	-	-	0	0
f. SB TR (1)	-	-	-	0	0
11. Plum Creek Pkwy./Praxis St./Dawson Trails Blvd.					
a. EB L (1)	250	-	-	78	62
b. EB T (2)	-	-	-	426	551
c. EB R (1)	250	-	-	40	51
d. WB L (2)	600	-	-	130	177
e. WB T (2)	-	-	-	428	471
f. WB R (1)	-	-	-	0	0
g. NB L (1)	200	-	-	78	54
h. NB T (2)	-	-	-	51	70
i. NB R (1)	-	-	-	0	0
j. SB L (2)	500	-	-	194	200
k. SB T (2)	-	-	-	60	80
l. SB R (1)	100	-	-	45	53
12. Praxis St./East/West Collector					
a. WB R (1)	-	-	-	35	10
b. SB L (1)	150	-	-	25	5

Legend

- Turn lane queue spills into thru lane
- Queue spills back into upstream intersection
- Through lane queue blocks LT lane
- Through lane queue blocks RT lane
- Through lane queue blocks LT & RT lanes

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IV. PROJECT DEVELOPMENT

A. Trip Generation

The trip generation projections for the proposed Brickyard development were forecast utilizing the publication *Trip Generation, 11th Edition*, by the Institute of Transportation Engineers (ITE). Estimates of total daily traffic volumes and a.m. and p.m. peak hour traffic volumes were calculated. Site generated vehicular trip reductions as a result of internal trip capture were considered and have been incorporated into the projections. Due to the location of the proposed development, site generated vehicular trip reductions as a result of transit use was not considered. Adjustments have also been incorporated into the assignment of the site generated vehicular trips on the study area roadways and intersections in order to account for the influence of pass-by trips.

Internal trip capture is that portion of trips generated by a mixed-use development that both begin and end within the development. The importance of internal trip capture is that those trips satisfy a portion of the total development's trip generation and they do so without using the external roadway system. The methodology presented in *Trip Generation Handbook, 3rd Edition,* by the ITE was utilized to estimate internal trip capture rates for the proposed Brickyard development. Based on the conceptual site plan for the proposed development, the projected site generated trips captured internally can be considered non-vehicular trips and therefore can be deducted from the overall site generated trip totals. Based on engineering judgement, the computed ITE internal trip capture rates were capped at a maximum of 20% to be more conservative and applicable to the nature of the proposed development and surrounding land uses. The unadjusted vehicular trip generation projections for the proposed Brickyard development are summarized in Table 5. The internal trip capture rates and resulting site generated vehicular trip reductions and adjusted vehicular trip generation projections are summarized in Table 5A. Appendix “D” provides detailed internal trip capture worksheets for the proposed Brickyard development.

Pass-by trips can be defined as an intermediate stop on the way from an origin to a primary trip destination (I.e., home to work) without route diversion. For example, a commuter whose primary trip is home to work makes an intermediate stop for vehicle fueling, fast-food, etc. and continues on their way without any route diversion. These site generated trips already exist in the background traffic volume and are only added to the sites access intersections with the external roadway network and internal roadway system. The methodology presented in *Trip Generation Handbook, 3rd Edition,* by the ITE was utilized to estimate pass-by trip rates and volumes for the proposed Brickyard development. For the purposes of this study, site generated pass-by trips were incorporated into the assignment of the site generated vehicular trips to the study area roadways and intersections utilizing the same trip distribution methodology as for the distribution of the site generated trips for each specific land use. Site generated pass-by trips for the proposed Brickyard development have been computed for the commercial/retail land use and summarized in Table 5B.

For the purposes of this study, it was assumed that the proposed Brickyard development will be fully built out by 2027 and will consist of 384 multi-family (mid-rise) housing units, a 123-room hotel, 8,500 square feet of commercial/retail space, 22,900 square feet of high turnover (sit-down) restaurant/food hall space, 56,000 total square feet of general office and medical office space, a 15,000 square foot supermarket, a bowling alley with 64 lanes, and a 145,000 square-foot community recreation center.

Based on these parameters, at buildout, the proposed Brickyard development is projected to generate 11,429 daily vehicle trips of which 888 will occur during the morning peak hour and 1,135 will occur during the evening peak hour.

TABLE 5
THE BRICKYARD – TRIP GENERATION SUMMARY

Land Use	Intensity		ITE Code	Daily (vpd)	AM Peak Hour (vph)			PM Peak Hour (vph)		
					Total	In	Out	Total	In	Out
Multi-family Housing (Mid-Rise) (4-10 floors)	384	DU	221	1785	157	36	121	150	92	58
Hotel	123	Rooms	310	910	54	30	24	63	32	31
Recreational Community Center	145	KSF	495	4013	277	183	94	345	162	183
Retail Plaza (<40k)	8.5	KSF	822	588	26	16	10	69	35	34
General Office Building	25	KSF	710	347	51	45	6	53	9	44
Medical-Dental Office Building	31	KSF	720	1224	84	66	18	123	37	86
High Turnover (Sit-Down) Restaurant	22.9	KSF	932	2455	219	120	99	207	126	81
Supermarket	15	KSF	850	1790	43	25	18	166	83	83
Bowling Alley	64	Lanes	437	-	95	90	5	133	86	47
Combined (Unadjusted) Total				**13,112**	**1,006**	**611**	**395**	**1,309**	**662**	**647**

TABLE 5A
THE BRICKYARD – ADJUSTED TRIP GENERATION SUMMARY

The Brickyard Mixed Use - Trip Generation (Adjusted for Internal Trip Capture)											
Land Use	**Intensity**		**ITE Code**	**Daily (vpd)**	**A.M. Peak Hour (vph)**			**P.M. Peak Hour (vph)**		
					Total	**In**	**Out**	**Total**	**In**	**Out**
Residential										
Residential - Total (Unadjusted)	384	DU	220	1785	157	36	121	150	92	58
Residential - Internal Trip Capture %*				17%		8%	20%		20%	20%
Residential - Internal Trip Capture**				303	27	3	24	30	18	12
Residential - Site Trips (Adjusted for Internal Trip Capture)				1,482	130	33	97	120	74	46
Residential - Total Adjusted Trips				**1,482**	**130**	**33**	**97**	**120**	**74**	**46**
Hotel										
Hotel - Total (Unadjusted)	123	Rooms	310	910	54	30	24	63	32	31
Hotel - Internal Trip Capture %*				16%		3%	20%		20%	20%
Hotel - Internal Trip Capture**				146	6	1	5	12	6	6
Hotel - Site Trips (Adjusted for Internal Trip Capture)				764	48	29	19	51	26	25
Hotel - Total Adjusted Trips				**764**	**48**	**29**	**19**	**51**	**26**	**25**
Recreational Community Center										
Rec Center - Total (Unadjusted)	145	KSF	495	4013	277	183	94	345	162	183
Rec - Internal Trip Capture %***				0%		0%	0%		0%	0%
Rec - Internal Trip Capture***				0	0	0	0	0	0	0
Rec Center - Site Trips (Adjusted for Internal Trip Capture)				4,013	277	183	94	345	162	183
Recreational Community Center - Total Adjusted Trips				**4,013**	**277**	**183**	**94**	**345**	**162**	**183**
Commercial/Retail										
Commercial/Retail - Total (Unadjusted)	8.5	KSF	822	588	26	16	10	69	35	34
Commercial/Retail - Internal Trip Capture %*				20%		20%	20%		20%	20%
Commercial/Retail - Internal Trip Capture**				118	5	3	2	14	7	7
Commercial/Retail - Site Trips (Adjusted for Internal Trip Capture)				470	21	13	8	55	28	27
Commercial/Retail - Total Adjusted Trips				**470**	**21**	**13**	**8**	**55**	**28**	**27**
Office										
Office - Total (Unadjusted)	56	KSF	710	1571	135	111	24	176	46	130
Office - Internal Trip Capture %*				17%		20%	20%		15%	12%
Office - Internal Trip Capture**				267	27	22	5	23	7	16
Office - Site Trips (Adjusted for Internal Trip Capture)				1,304	108	89	19	153	39	114
Office - Total Adjusted Trips				**1,304**	**108**	**89**	**19**	**153**	**39**	**114**
High Turnover (Sit-Down) Restaurant										
High Turnover (Sit-Down) Restaurant - Total (Unadjusted)	22.9	KSF	932	2455	219	120	99	207	126	81
High Turnover (Sit-Down) Restaurant - Internal Trip Capture %*				20%		20%	20%		20%	20%
High Turnover (Sit-Down) Restaurant - Internal Trip Capture**				491	44	24	20	41	25	16
High Turnover (Sit-Down) - Site Trips (Adjusted for Internal Trip Capture)				1,964	175	96	79	166	101	65
High Turnover (Sit-Down) Restaurant - Total Adjusted Trips				**1,964**	**175**	**96**	**79**	**166**	**101**	**65**
Supermarket										
Supermarket - Total (Unadjusted)	15	KSF	850	1790	43	25	18	166	83	83
Supermarket - Internal Trip Capture %*				20%		20%	20%		20%	20%
Supermarket - Internal Trip Capture**				358	9	5	4	34	17	17
Supermarket - Site Trips (Adjusted for Internal Trip Capture)				1,432	34	20	14	132	66	66
Supermarket - Total Adjusted Trips				**1,432**	**34**	**20**	**14**	**132**	**66**	**66**
Bowling Alley										
Bowling Alley - Total (Unadjusted)	64	Lanes	437	-	95	90	5	133	86	47
Bowling Alley - Internal Trip Capture %*				-		0%	0%		13%	20%
Bowling Alley - Internal Trip Capture**				-	0	0	0	20	11	9
Bowling Alley - Site Trips (Adjusted for Internal Trip Capture)				-	95	90	5	113	75	38
Bowling Alley - Total Adjusted Trips				**-**	**95**	**90**	**5**	**113**	**75**	**38**
Summary of Adjusted Site Generated Trips										
Brickyard - Total Trips (Unadjusted)				13,112	1,006	611	395	1,309	662	647
Brickyard - Total Internal Trip Capture & Multimodal Trips**				1,683	118	58	60	174	91	83
Total Adjusted Site Generated Trips				**11,429**	**888**	**553**	**335**	**1135**	**571**	**564**
% Reduction in Total Site Generated Trips				**12.8%**	**11.7%**	**9.5%**	**15.2%**	**13.3%**	**13.7%**	**12.8%**

* Internal trip capture % capped at 20%.

** Projections of daily internal trip capture utilizes the average of the a.m. and p.m. internal trip capture %.

*** ITE has no data or methodology that includes internal trip capture for a rec center as it relates to other land uses (residential, office, retail, etc.). Therefore, Internal trip capture is not included in the trip generation adjustments.

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TABLE 5B
THE BRICKYARD – SUMMARY OF PASS-BY TRIPS

Land Use	Intensity		ITE Code	Daily (vpd)	A.M. Peak Hour (vph)			P.M. Peak Hour (vph)		
					Total	In	Out	Total	In	Out
Retail Plaza (<40K) Pass-By Trips (% Based on Figure E.7 & Table E.9 - ITE Trip Generation Handbook, 3rd Edition)										
Commercial/Retail (Shopping Plaza) - Total Adjusted Trips	8.5	KSF	822	470	21	13	8	55	28	27
Commercial/Retail - Pass-By Trip %				-		0%	0%		34%	34%
Commercial/Retail - Pass-By Trips				-	0	0	0	19	10	9
Commercial/Retail - Non-Pass-By Trips				-	21	13	8	36	18	18
High Turnover (Sit-Down) Restaurant Pass-By Trips (% Based on Table E.30 - ITE Trip Generation Handbook, 3rd Edition)										
High Turnover (Sit Down) - Total Adjusted Trips	22.9	KSF	932	1964	175	96	79	166	101	65
High Turnover (Sit-Down) - Pass-By Trip %				-		0%	0%		43%	43%
High Turnover (Sit-Down) - Pass-By Trips (Rounded to nearest 5)				-	0	0	0	75	45	30
High Turnover (Sit-Down) - Non-Pass-By Trips				-	175	96	79	91	56	35

B. Trip Distribution

The distribution of the projected vehicular trips generated by the proposed Brickyard development was established based on the following:

- Current and projected future traffic patterns on the surrounding transportation system.
- Efficiency of access to principal transportation corridors such as Wolfensberger Rd., Plum Creek Pkwy., I-25, Prairie Hawk Dr., etc.
- Potential trip origins/destinations for the proposed land uses such as surrounding shopping centers, schools, and employment centers.

It was determined based on the traffic volume counts collected for this study and the observed traffic distribution patterns in the vicinity of the project site that the majority of the projected vehicular trips generated by the proposed development would utilize Plum Creek Pkwy. rather than Wolfensberger to access the project site. For this reason, the Wolfensberger interchange was not included in this analysis. Even without any improvements to Plum Creek Pkwy. or the Plum Creek Pkwy. and I-25 interchange, it would still be anticipated that the majority of the projected vehicular trips generated by the proposed development would utilize Plum Creek Pkwy. rather than Wolfensberger to access the project site as Plum Creek Pkwy. provides more direct and efficient access.

Figures 12 - 19 graphically illustrate the projected trip distribution patterns for the proposed Brickyard development residential, commercial/retail, hotel, recreation center, office space, restaurant, supermarket, and bowling alley land uses 2027 (build-out) analysis horizon, respectively. Figures 20 - 27 graphically illustrate the projected trip distribution patterns for the proposed Brickyard development residential, commercial/retail, hotel, recreation center, office space, restaurant, supermarket, and bowling alley land uses 2050 (long-term) analysis horizon, respectively.

C. Trip Assignment

The vehicular traffic volumes projected to be generated by the proposed Brickyard development, shown in Table 5A, were assigned to the study area roadways and intersections utilizing the trip distribution methodology described above. Figures 28 and 29 graphically illustrate the site generated trip assignment for the proposed Brickyard development 2027 (build-out) and 2050 (long-term) analysis horizons, respectively. Site generated pass-by trips, computed for the commercial/retail and restaurant land uses 2027 (build-out) and 2050 (long-term) analysis horizons are graphically illustrated in Figures 30 and 31, respectively.

V. TOTAL TRAFFIC

Total traffic forecasts for the 2027 (build-out) and 2050 (long-term) analysis horizons were computed by combining the associated 2027 (build-out) and 2050 (long-term) background traffic volumes with the projected site generated traffic volumes. Figures 32 & 33 graphically illustrate the total traffic projections for the study area intersections for the 2027 (build-out) and 2050 (long-term) analysis horizons, respectively.

VI. PROJECT ANALYSIS

A. Operational Analysis

In order to evaluate the impact of the proposed Brickyard development on the study area roadway system, peak hour intersection capacity analyses for the total traffic conditions were performed for the 2027 (build-out) and 2050 (long-term) analysis horizon total traffic scenarios at each of the study area intersections listed below:

1. Wolfensberger Rd./Prairie Hawk Dr. (Signalized)
2. Prairie Hawk Dr./Atchison Way (TWSC/Roundabout)
3. Prairie Hawk Dr./Topeka Way (TWSC)
4. Atchison Way/Topeka Way (TWSC)
5. Wolfensberger Rd./Plum Creek Pkwy./Coachline Rd. (2-Lane Roundabout)
6. Plum Creek Pkwy./Auburn Dr. (TWSC)
7. Plum Creek Pkwy./SB I-25 Ramps (Signalized)
8. Plum Creek Pkwy./NB I-25 Ramps (Signalized)
9. Plum Creek Pkwy./Wilcox St. (Signalized)
10. Prairie Hawk Dr./Praxis St./West Site Access (Proposed Roundabout)
11. Plum Creek Pkwy./Praxis St./Dawson Trails Blvd. (Proposed)
12. Praxis St./East/West Collector
13. Prairie Hawk Dr./Brickyard Cir. (North) (Proposed)
14. Prairie Hawk Dr./Brickyard Cir. (South) (Proposed)
15. West Site Access Roadway/Brickyard Cir. (Proposed)
16. Fifer St./Brickyard Cir. (North) (Proposed)
17. Fifer St./Brickyard Cir. (South) (Proposed)
18. Prairie Hawk Dr./Bowling Alley Access (Proposed)

The results of the total traffic operational analyses are summarized in Table 6, below. Figures 34 and 35 graphically illustrate the 2027 (build-out) and 2050 (long-term) analysis horizon total traffic scenarios operational analyses, respectively. Detailed *Synchro 12* software intersection capacity analysis reports are provided in Appendix “C”.

A comparative analysis of the 2027 (build-out) and 2050 (long-term) analysis horizons background and total traffic scenarios operational analyses was performed to evaluate the level of impact, as measured by level of service, the proposed Brickyard development will have on the study area intersections. Based on the comparative analyses, there are no study area intersections, overall, or individual lane groups that are projected to deteriorate from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the traffic projected to be generated by the proposed Brickyard development in either the 2027 (build-out) or 2050 (long-term) analysis horizons total traffic conditions scenarios. Those intersections with poor or failing overall or individual lane group levels of service in the background traffic scenarios are projected to remain with poor to failing levels of service in the total traffic scenarios. The developer will however be making intersection

and roadway improvements and contributing to improvements so that traffic impacts from the proposed development will not exceed Town LOS and roadway standards.

Table 7 provides a side-by-side comparative summary of the 2027 (build-out) and 2050 (long-term) analysis horizons background and total traffic scenarios operational analyses.

TABLE 6
2027 (BUILD-OUT) & 2050 (LONG-TERM) TOTAL TRAFFIC
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2027 TOTAL TRAFFIC				2050 TOTAL TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
1.* Prairie Hawk Dr. & E. Wolfensberger Rd.	**Signal**								
a. EB L (Prot+Perm)		C	27.6	C	34.1	C	25.7	C	32.2
b. EB TR		D	38.5	D	44.8	-	-	-	-
c. EB T		-	-	-	-	D	35.8	D	41.0
d. EB R		-	-	-	-	C	30.0	D	35.7
e. WB L (Prot+Perm)		D	43.1	D	40.6	D	39.7	D	40.7
f. WB T		C	29.5	D	35.9	C	25.3	C	29.4
g. WB R		C	32.4	D	38.4	C	28.0	C	31.3
h. NB L (Prot+Perm)		B	15.6	B	12.2	C	20.9	B	18.1
i. NB T		B	17.7	B	15.5	C	23.2	C	21.6
j. NB R		B	19.2	B	18.6	D	35.2	D	35.6
k. SB L (Prot+Perm)		B	15.9	B	13.7	-	-	-	-
l. SB L (Prot+Perm) (Dual)		-	-	-	-	B	18.2	B	17.2
m. SB T		B	16.0	B	14.2	-	-	-	-
n. SB R		B	14.9	B	14.2	-	-	-	-
o. SB TR		-	-	-	-	C	20.9	C	21.0
P. INTERSECTION		**C**	**29.2**	**C**	**29.1**	**C**	**29.2**	**C**	**30.5**
2. Prairie Hawk Dr. & Atchison Way	**TWSC**								
a. EB LR	Stop	B	13.2	C	18.7	-	-	-	-
b. NB LT		A	8.1	A	8.1	-	-	-	-
c. INTERSECTION		**A**	**1.0**	**A**	**3.3**	**-**	**-**	**-**	**-**
2.A." Prairie Hawk Dr. & Atchison Way	**Roundabout**								
a. EB LR	Yield	-	-	-	-	A	7.3	A	8.4
b. NB T	Free	-	-	-	-	A	5.4	A	8.1
c. SB T	Yield	-	-	-	-	A	4.5	A	4.4
d. SB R	Free	-	-	-	-	A	0.0	A	0.0
e. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**4.2**	**A**	**5.4**
3. Prairie Hawk Dr. & Topeka Way	**TWSC**								
a. EB LTR	Stop	A	7.5	A	7.4	A	7.3	A	7.4
b. WB LTR	Stop	A	7.9	A	7.3	A	0.0	A	0.0
c. NB L		B	12.4	B	13.2	B	10.6	B	12.7
d. SB L		A	9.0	B	13.5	B	11.1	B	12.4
e. INTERSECTION		**A**	**1.3**	**B**	**12.2**	**B**	**10.2**	**B**	**11.1**
4." Atchison Way & Topeka Way	**TWSC**								
a. EB LT		A	7.3	A	7.3	-	-	-	-
b. EB L	Stop	-	-	-	-	B	13.8	B	13.0
c. EB TR	Stop	-	-	-	-	B	13.3	B	13.2
d. WB L	Stop	-	-	-	-	B	13.9	B	14.9
e. WB TR	Stop	-	-	-	-	B	13.6	B	12.3
f. NB L		-	-	-	-	A	0.0	A	0.0
g. SB LR	Stop	A	8.5	A	8.6	-	-	-	-
h. SB L		-	-	-	-	A	0.0	A	7.8
i. INTERSECTION		**A**	**1.3**	**A**	**2.1**	**A**	**1.9**	**A**	**3.5**

TABLE 6 (CONTINUED)
2027 (BUILD-OUT) & 2050 (LONG-TERM) TOTAL TRAFFIC
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2027 TOTAL TRAFFIC				2050 TOTAL TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
5. Plum Creek Pkwy./Coachline Rd. & W. Wolfensberger Rd.	**Roundabout**								
a. EB LT	Yield	A	5.5	A	4.9	A	9.8	A	7.3
b. EB TR	Yield	A	5.2	A	4.6	A	9.4	A	7.0
c. WB LT	Yield	A	3.9	A	5.3	A	5.3	A	7.8
d. WB TR	Yield	A	3.8	A	5.1	A	5.2	A	7.5
e. NB LT	Yield	A	4.9	A	4.9	A	8.7	A	7.7
f. NB TR	Yield	A	4.6	A	4.8	A	7.8	A	7.2
g. SB LT	Yield	A	4.7	A	5.1	A	7.3	A	7.8
h. SB TR	Yield	A	4.6	A	4.8	A	7.0	A	7.3
i. INTERSECTION		**A**	**4.7**	**A**	**4.9**	**A**	**7.7**	**A**	**7.4**
6." Plum Creek Pkwy. & Auburn Dr.	**TWSC**								
a. EB LT		A	7.8	A	8.4	-	-	-	-
b. EB L		-	-	-	-	A	8.7	A	9.8
c. SB LR	Stop	C	15.8	C	20.0	D	34.6	E	49.9
d. INTERSECTION		**A**	**2.4**	**A**	**2.0**	**A**	**3.5**	**A**	**3.7**
7. " Plum Creek Pkwy. & I-25 SB Ramps	**Signal**								
a. EB TR		D	43.1	D	37.1	-	-	-	-
b. EB T		-	-	-	-	C	29.7	D	51.3
c. EB R (Free)		-	-	-	-	A	0.0	A	0.0
d. WB L (Prot+Perm)		D	39.3	D	47.2	C	25.2	D	54.1
e. WB T		B	15.9	B	10.7	B	17.3	B	12.1
f. NB L (Prot)		D	54.1	D	54.1	-	-	-	-
g. NB R		A	5.3	A	8.5	-	-	-	-
h. SB L (Prot) (Dual)		A	7.9	B	12.5	C	21.3	D	37.7
i. SB LTR		B	11.9	B	18.2	-	-	-	-
j. SB LT		-	-	-	-	C	29.5	D	36.9
k. SB R (Free)		-	-	-	-	A	0.0	A	0.0
l. INTERSECTION		**C**	**23.8**	**C**	**22.3**	**C**	**23.9**	**D**	**37.6**
8." Plum Creek Pkwy. & I-25 NB Ramps	**Signal**								
a. EB L (Prot+Perm)		D	48.2	D	52.7	-	-	-	-
b. EB L (Prot+Perm) (Dual)		-	-	-	-	D	49.8	D	50.3
c. EB T		A	4.1	A	3.9	A	5.9	A	5.9
d. WB TR		D	48.5	D	35.1	D	51.9	F	79.8
e. WB R		D	41.4	D	45.7	D	48.1	C	27.9
f. NB L (Prot)		C	33.2	D	35.7	D	51.2	D	52.5
g. NB LTR		C	33.2	D	35.7	D	51.2	D	52.5
h. NB R		D	35.3	D	38.9	D	43.8	D	44.9
i. INTERSECTION		**C**	**32.8**	**C**	**27.3**	**D**	**37.4**	**C**	**34.0**

TABLE 6 (CONTINUED)
2027 (BUILD-OUT) & 2050 (LONG-TERM) TOTAL TRAFFIC
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2027 TOTAL TRAFFIC				2050 TOTAL TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
9." Plum Creek Pkwy. & S. Wilcox St.	**Signal**								
a. EB L (Prot+Perm)		C	33.3	D	41.0	D	43.6	D	52.2
b. EB T		C	23.6	D	35.7	C	21.2	D	40.4
c. EB R (Free)		A	0.0	A	0.0	A	0.0	A	0.0
d. WB L (Prot+Perm)		C	21.5	C	27.3	B	19.2	D	42.1
e. WB T		D	39.0	D	42.6	-	-	-	-
f. WB R		C	24.9	C	26.3	-	-	-	-
g. WB TR		-	-	-	-	D	37.6	D	42.6
h. NB L (Prot+Perm) (Dual)		C	24.1	C	26.9	D	39.3	D	53.6
i. NB T		C	24.1	C	32.4	D	36.1	D	40.2
j. NB R		C	23.4	C	30.2	-	-	-	-
k. NB R (Perm+ov)		-	-	-	-	C	29.7	C	32.5
l. SB L (Prot+Perm)		C	21.9	C	25.1	D	35.1	D	52.5
m. SB T		C	28.1	C	32.1	D	42.0	D	53.4
n. SB R		C	28.1	D	44.8	-	-	-	-
o. SB R (Perm+ov)		-	-	-	-	C	33.1	D	45.5
p. INTERSECTION		**C**	**29.9**	**D**	**35.9**	**C**	**28.1**	**D**	**44.1**
10.^ Prairie Hawk Dr./Praxis St./West Site Access	**Roundabout**								
a. EB LTR	Yield	-	-	-	-	A	5.9	A	6.1
b. WB LTR	Yield	-	-	-	-	A	6.5	A	8.6
c. NB LT	Yield	-	-	-	-	A	5.6	A	5.2
d. NB TR	Yield	-	-	-	-	A	6.3	A	6.2
e. SB LT	Yield	-	-	-	-	A	4.7	A	6.0
f. SB TR	Yield	-	-	-	-	A	4.5	A	5.6
g. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**5.8**	**A**	**6.7**
11.^ Plum Creek Pkwy. & Praxis St./Dawson Trails Blvd.	**Signal**								
a. EB L (Prot+Perm)		C	26.7	C	24.8	D	37.3	C	26.8
b. EB TR		C	27.5	C	23.2	-	-	-	-
c. EB T		-	-	-	-	C	30.8	D	38.5
d. EB R		-	-	-	-	C	24.7	C	26.8
e. WB L (Prot+Perm)		A	0.0	A	0.0	-	-	-	-
f. WB L (Prot+Perm) (Dual)		-	-	-	-	C	23.2	C	26.2
g. WB T		D	37.2	D	35.6	C	33.2	C	34.9
h. WB R		D	35.8	C	30.6	-	-	-	-
i. WB R (Free)		-	-	-	-	A	0.0	A	0.0
j. NB L (Perm)		A	0.0	A	0.0	-	-	-	-
k. NB L (Prot+Perm)		-	-	-	-	B	15.7	B	14.9
l. NB TR		C	20.3	B	10.3	-	-	-	-
m. NB T		-	-	-	-	C	27.5	C	27.0
n. NB R (Free)		-	-	-	-	A	0.0	A	0.0
o. SB L (Perm)		C	24.6	B	13.6	-	-	-	-
p. SB L (Prot+Perm) (Dual)		-	-	-	-	B	17.3	B	17.9
q. SB TR		C	21.3	B	11.4	-	-	-	-
r. SB T		-	-	-	-	C	27.0	C	27.3
s. SB R		-	-	-	-	C	31.8	D	35.3
t. INTERSECTION		**C**	**30.4**	**C**	**24.9**	**C**	**28.1**	**C**	**29.7**
12.^ Praxis St. & East/West Collector	**TWSC**								
a. WB R	Stop	-	-	-	-	C	18.3	B	12.5
b. SB L		-	-	-	-	B	11.1	B	10.1
c. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**1.9**	**A**	**0.9**

TABLE 6 (CONTINUED)
2027 (BUILD-OUT) & 2050 (LONG-TERM) TOTAL TRAFFIC
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2027 TOTAL TRAFFIC				2050 TOTAL TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
13.^ Prairie Hawk Dr. & Brickyard Cir. (North)	**TWSC**								
a. EB L	Stop	B	10.2	B	10.9	B	10.4	B	10.7
b. EB R	Stop	A	0.0	A	0.0	A	0.0	A	0.0
c. NB L		A	0.0	A	0.0	A	0.0	A	0.0
d. INTERSECTION		**A**	**1.9**	**A**	**2.5**	**A**	**2.1**	**A**	**2.3**
14.^ Prairie Hawk Dr. & Brickyard Cir. (South)	**TWSC**								
a. EB L	Stop	A	9.2	A	9.4	A	8.9	A	9.0
b. EB R	Stop	A	0.0	A	0.0	A	0.0	A	0.0
c. NB L		A	0.0	A	0.0	A	0.0	A	0.0
d. INTERSECTION		**A**	**3.4**	**A**	**4.5**	**A**	**3.5**	**A**	**4.7**
15.^ West Site Access & Brickyard Cir.	**TWSC**								
a. EB L	Stop	B	12.8	C	20.9	B	14.3	D	34.5
b. EB R	Stop	A	9.7	A	9.7	B	10.3	A	10.2
c. NB LT		A	7.6	A	8.0	A	7.7	A	8.2
d. INTERSECTION		**A**	**8.7**	**A**	**9.8**	**A**	**9.1**	**B**	**12.6**
16. ^ Fifer St. & Brickyard Cir. (North)	**TWSC**								
a. EB LTR		A	7.4	A	7.4	A	7.3	A	7.4
b. WB LTR		A	7.3	A	7.3	A	7.3	A	7.3
c. NB LTR	Stop	A	8.5	A	8.7	A	9.4	A	9.2
d. SB LTR	Stop	B	10.2	A	9.4	A	9.1	A	8.7
e. INTERSECTION		**A**	**6.2**	**A**	**5.9**	**A**	**6.5**	**A**	**5.9**
17. ^ Fifer St. & Brickyard Cir. (South)	**TWSC**								
a. EB L		A	7.6	A	7.5	A	7.5	A	7.5
b. WB L		A	7.6	A	7.6	A	7.6	A	7.6
c. NB LTR	Stop	C	15.0	C	17.7	C	15.0	C	17.6
d. SB LTR	Stop	B	11.7	B	11.8	B	10.1	B	10.1
e. INTERSECTION		**A**	**7.1**	**A**	**9.4**	**A**	**6.5**	**A**	**8.8**
18.^ Prairie Hawk Dr. & Bowling Alley Access	**TWSC**								
a. EB LR	Stop	B	10.6	B	11.5	B	10.6	B	10.1
b. NB LT		A	0.0	A	0.0	A	0.0	A	0.0
c. INTERSECTION		**A**	**0.1**	**A**	**0.3**	**A**	**0.1**	**A**	**0.5**

*** = intersection to undergo multiple modifications. See text for details.**
" = intersection to be modified by 2050
^ = new proposed intersection

TABLE 7
2027 (BUILD-OUT) & 2050 (LONG-TERM) BACKGROUND & TOTAL TRAFFIC OPERATIONAL ANALYSIS COMPARISON

INTERSECTION	CONTROL	2027 (BUILD-OUT)								2050 (LONG-TERM)							
		BACKGROUND				TOTAL				BACKGROUND				TOTAL			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
1.* Prairie Hawk Dr. & E. Wolfensberger Rd.	**Signal**																
a. EB L (Prot+Perm)		C	28.7	C	33.9	C	27.6	C	34.1	C	25.8	C	32.3	C	25.7	C	32.2
b. EB TR		D	39.1	D	41.6	D	38.5	D	44.8	-	-	-	-	-	-	-	-
c. EB T		-	-	-	-	-	-	-	-	D	35.9	D	41.1	D	35.8	D	41.0
d. EB R		-	-	-	-	-	-	-	-	C	29.4	C	34.9	C	30.0	D	35.7
e. WB L (Prot+Perm)		C	29.4	D	35.0	D	43.1	D	40.6	C	29.2	C	32.8	D	39.7	D	40.7
f. WB T		C	31.0	D	39.3	C	29.5	D	35.9	C	26.3	C	32.0	C	25.3	C	29.4
g. WB R		C	34.4	D	43.3	C	32.4	D	38.4	C	29.3	C	34.1	C	28.0	C	31.3
h. NB L (Prot+Perm)		B	15.4	B	12.4	B	15.6	B	12.2	C	20.2	B	16.3	C	20.9	B	18.1
i. NB TR		B	17.2	B	17.5	-	-	-	-	-	-	-	-	-	-	-	-
j. NB T		-	-	-	-	B	17.7	B	15.5	C	21.7	B	19.0	C	23.2	C	21.6
k. NB R		-	-	-	-	B	19.2	B	18.6	C	28.7	C	27.0	D	35.2	D	35.6
l. SB L (Prot+Perm)		B	14.1	B	11.2	B	15.9	B	13.7	-	-	-	-	-	-	-	-
m. SB L (Prot+Perm) (Dual)		-	-	-	-	-	-	-	-	B	16.9	B	15.3	B	18.2	B	17.2
n. SB T		B	12.9	B	10.9	B	16.0	B	14.2	-	-	-	-	-	-	-	-
o. SB R		B	13.0	B	11.8	B	14.9	B	14.2	-	-	-	-	-	-	-	-
p. SB TR		-	-	-	-	-	-	-	-	B	18.6	B	18.2	C	20.9	C	21.0
q. INTERSECTION		**C**	**29.1**	**C**	**30.4**	**C**	**29.2**	**C**	**29.1**	**C**	**27.3**	**C**	**28.9**	**C**	**29.2**	**C**	**30.5**
2. Prairie Hawk Dr. & Atchison Way	**TWSC**																
a. EB LR	Stop	A	9.9	B	10.9	B	13.2	C	18.7	-	-	-	-	-	-	-	-
b. NB LT		A	7.6	A	7.6	A	8.1	A	8.1	-	-	-	-	-	-	-	-
c. INTERSECTION		**A**	**1.7**	**A**	**4.0**	**A**	**1.0**	**A**	**3.3**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
2.A." Prairie Hawk Dr. & Atchison Way	**Roundabout**																
a. EB LR	Yield	-	-	-	-	-	-	-	-	A	5.8	A	6.4	A	7.3	A	8.4
b. NB T	Free	-	-	-	-	-	-	-	-	A	4.3	A	5.6	A	5.4	A	8.1
c. SB T	Yield	-	-	-	-	-	-	-	-	A	3.7	A	3.5	A	4.5	A	4.4
d. SB R	Free	-	-	-	-	-	-	-	-	A	0.0	A	0.0	A	0.0	A	0.0
e. INTERSECTION		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**A**	**3.3**	**A**	**4.0**	**A**	**4.2**	**A**	**5.4**
3. Prairie Hawk Dr. & Topeka Way	**TWSC**																
a. EB LTR	Stop	A	7.2	A	7.2	A	7.5	A	7.4	A	7.3	A	7.4	A	7.3	A	7.4
b. WB LTR	Stop	A	7.4	A	7.3	A	7.9	A	7.3	A	0.0	A	0.0	A	0.0	A	0.0
c. NB L		A	9.1	A	9.3	B	12.4	B	13.2	A	9.9	B	10.9	B	10.6	B	12.7
d. SB L		A	8.4	A	8.4	A	9.0	B	13.5	A	9.1	A	9.2	B	11.1	B	12.4
e. INTERSECTION		**A**	**3.5**	**A**	**5.8**	**A**	**1.3**	**B**	**12.2**	**A**	**8.2**	**A**	**7.9**	**B**	**10.2**	**B**	**11.1**
4." Atchison Way & Topeka Way	**TWSC**																
a. EB LT		A	7.3	A	7.3	A	7.3	A	7.3	-	-	-	-	-	-	-	-
b. EB L	Stop	-	-	-	-	-	-	-	-	B	12.7	B	11.8	B	13.8	B	13.0
c. EB TR	Stop	-	-	-	-	-	-	-	-	B	12.4	B	12.1	B	13.3	B	13.2
d. WB L	Stop	-	-	-	-	-	-	-	-	B	12.7	B	13.1	B	13.9	B	14.9
e. WB TR	Stop	-	-	-	-	-	-	-	-	B	12.7	B	11.5	B	13.6	B	12.3
f. NB L		-	-	-	-	-	-	-	-	A	0.0	A	0.0	A	0.0	A	0.0
g. SB LR	Stop	A	8.5	A	8.6	A	8.5	A	8.6	-	-	-	-	-	-	-	-
h. SB L		-	-	-	-	-	-	-	-	A	0.0	A	7.7	A	0.0	A	7.8
i. INTERSECTION		**A**	**1.3**	**A**	**2.1**	**A**	**1.3**	**A**	**2.1**	**A**	**2.0**	**A**	**3.7**	**A**	**1.9**	**A**	**3.5**
5. Plum Creek Pkwy./Coachline Rd. & W. Wolfensberger Rd.	**Roundabout**																
a. EB LT	Yield	A	4.9	A	4.5	A	5.5	A	4.9	A	8.9	A	6.7	A	9.8	A	7.3
b. EB TR	Yield	A	4.6	A	4.2	A	5.2	A	4.6	A	8.5	A	6.4	A	9.4	A	7.0
c. WB LT	Yield	A	3.7	A	4.8	A	3.9	A	5.3	A	5.1	A	7.2	A	5.3	A	7.8
d. WB TR	Yield	A	3.5	A	4.6	A	3.8	A	5.1	A	5.0	A	6.9	A	5.2	A	7.5
e. NB LT	Yield	A	4.4	A	4.5	A	4.9	A	4.9	A	7.7	A	7.0	A	8.7	A	7.7
f. NB TR	Yield	A	4.1	A	4.3	A	4.6	A	4.8	A	7.1	A	6.6	A	7.8	A	7.2
g. SB LT	Yield	A	4.4	A	4.5	A	4.7	A	5.1	A	6.9	A	7.1	A	7.3	A	7.8
h. SB TR	Yield	A	4.3	A	4.4	A	4.6	A	4.8	A	6.6	A	6.6	A	7.0	A	7.3
i. INTERSECTION		**A**	**4.3**	**A**	**4.5**	**A**	**4.7**	**A**	**4.9**	**A**	**7.0**	**A**	**6.8**	**A**	**7.7**	**A**	**7.4**
6." Plum Creek Pkwy. & Auburn Dr.	**TWSC**																
a. EB LT		A	7.6	A	8.2	A	7.8	A	8.4	-	-	-	-	-	-	-	-
b. EB L		-	-	-	-	-	-	-	-	A	8.5	A	9.5	A	8.7	A	9.8
c. SB LR	Stop	B	13	C	15.5	C	15.8	C	20.0	D	28.3	E	35.4	D	34.6	E	49.9
d. INTERSECTION		**A**	**2.5**	**A**	**1.9**	**A**	**2.4**	**A**	**2.0**	**A**	**3.1**	**A**	**2.9**	**A**	**3.5**	**A**	**3.7**

TABLE 7 (CONTINUED)
2027 (BUILD-OUT) & 2050 (LONG-TERM) BACKGROUND & TOTAL TRAFFIC OPERATIONAL ANALYSIS COMPARISON

INTERSECTION	CONTROL	2027 (BUILD-OUT)								2050 (LONG-TERM)							
		BACKGROUND				TOTAL				BACKGROUND				TOTAL			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
7." Plum Creek Pkwy. & I-25 SB Ramps	**Signal**																
a. EB TR		D	40.5	D	42.7	D	43.1	D	37.1	-	-	-	-	-	-	-	-
b. EB T		-	-	-	-	-	-	-	-	C	30.3	D	51.1	C	29.7	D	51.3
c. EB R (Free)		-	-	-	-	-	-	-	-	A	0.0	A	0.0	A	0.0	A	0.0
d. WB L (Prot+Perm)		D	42.9	D	40.4	D	39.3	D	47.2	C	32.1	D	43.7	C	25.2	D	54.1
e. WB T		B	19.3	B	14.0	B	15.9	B	10.7	B	17.9	B	14.4	B	17.3	B	12.1
f. NB L (Prot)		D	54.1	D	54.1	D	54.1	D	54.1	-	-	-	-	-	-	-	-
g. NB R		A	4.3	A	7.7	A	5.3	A	8.5	-	-	-	-	-	-	-	-
h. SB L (Prot) (Dual)		A	6.3	B	10.1	A	7.9	B	12.5	C	20.1	D	40.0	C	21.3	D	37.7
i. SB LTR		A	9.3	B	14.1	B	11.9	B	18.2	-	-	-	-	-	-	-	-
j. SB LT		-	-	-	-	-	-	-	-	C	27.2	C	33.4	C	29.5	D	36.9
k. SB R (Free)		-	-	-	-	-	-	-	-	A	0.0	A	0.0	A	0.0	A	0.0
l. INTERSECTION		**C**	**22.9**	**C**	**21.0**	**C**	**23.8**	**C**	**22.3**	**C**	**24.6**	**D**	**36.0**	**C**	**23.9**	**D**	**37.6**
8." Plum Creek Pkwy. & I-25 NB Ramps	**Signal**																
a. EB L (Prot+Perm)		D	42.3	D	36.7	D	48.2	D	52.7	-	-	-	-	-	-	-	-
b. EB L (Prot+Perm) (Dual)		-	-	-	-	-	-	-	-	D	37.3	D	42.6	D	49.8	D	50.3
c. EB T		A	5.3	A	6.1	A	4.1	A	3.9	A	6.7	A	6.9	A	5.9	A	5.9
d. WB TR		D	40.8	C	33.7	D	48.5	D	35.1	C	33.5	F	59.7	D	51.9	F	79.8
e. WB R		C	31.7	D	38.9	D	41.4	D	45.7	D	42.6	C	27.9	D	48.1	C	27.9
f. NB L (Prot)		C	28.8	C	29.0	C	33.2	D	35.7	D	43.9	D	42.4	D	51.2	D	52.5
g. NB LTR		C	28.8	C	29.0	C	33.2	D	35.7	D	43.9	D	42.4	D	51.2	D	52.5
h. NB R		C	30.0	C	30.1	D	35.3	D	38.9	D	40.7	D	40.8	D	43.8	D	44.9
i. INTERSECTION		**C**	**27.4**	**C**	**24.4**	**C**	**32.8**	**C**	**27.3**	**C**	**30.2**	**C**	**28.6**	**D**	**37.4**	**C**	**34.0**
9." Plum Creek Pkwy. & S. Wilcox St.	**Signal**																
a. EB L (Prot+Perm)		C	34.1	D	40.1	C	33.3	D	41.0	D	46.5	D	46.9	D	43.6	D	52.2
b. EB T		C	24.1	D	35.7	C	23.6	D	35.7	C	31.9	D	42.2	C	21.2	D	40.4
c. EB R (Free)		A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
d. WB L (Prot+Perm)		C	21.8	C	27.2	C	21.5	C	27.3	B	19.5	D	38.3	B	19.2	D	42.1
e. WB T		D	38.4	D	40.1	D	39.0	D	42.6	-	-	-	-	-	-	-	-
f. WB R		C	25.4	C	26.4	C	24.9	C	26.3	-	-	-	-	-	-	-	-
g. WB TR		-	-	-	-	-	-	-	-	D	37.9	D	42.3	D	37.6	D	42.6
h. NB L (Prot+Perm) (Dual)		C	23.0	C	25.4	C	24.1	C	26.9	D	38.5	D	48.4	D	39.3	D	53.6
i. NB T		C	24.1	C	31.7	C	24.1	C	32.4	D	35.1	D	39.8	D	36.1	D	40.2
j. NB R		C	22.8	C	29.6	C	23.4	C	30.2	-	-	-	-	-	-	-	-
k. NB R (Perm+ov)		-	-	-	-	-	-	-	-	C	28.9	C	31.8	C	29.7	C	32.5
l. SB L (Prot+Perm)		C	21.4	C	24.7	C	21.9	C	25.1	C	31.9	D	51.7	D	35.1	D	52.5
m. SB T		C	24.7	C	31.5	C	28.1	C	32.1	D	37.7	D	52.7	D	42.0	D	53.4
n. SB R		C	27.0	D	41.9	C	28.1	D	44.8	-	-	-	-	-	-	-	-
o. SB R (Perm+ov)		-	-	-	-	-	-	-	-	C	29.2	D	43.8	C	33.1	D	45.5
p. INTERSECTION		**C**	**29.6**	**C**	**34.7**	**C**	**29.9**	**D**	**35.9**	**C**	**28.0**	**D**	**43.3**	**C**	**28.1**	**D**	**44.1**
10.^ Prairie Hawk Dr./Praxis St./West Site Access	**Roundabout**																
a. EB LTR	Yield	-	-	-	-	-	-	-	-	A	4.4	A	3.8	A	5.9	A	6.1
b. WB LTR	Yield	-	-	-	-	-	-	-	-	A	3.6	A	3.4	A	6.5	A	8.6
c. NB LT	Yield	-	-	-	-	-	-	-	-	A	4.0	A	3.8	A	5.6	A	5.2
d. NB TR	Yield	-	-	-	-	-	-	-	-	A	3.8	A	3.7	A	6.3	A	6.2
e. SB LT	Yield	-	-	-	-	-	-	-	-	A	3.5	A	3.6	A	4.7	A	6.0
f. SB TR	Yield	-	-	-	-	-	-	-	-	A	3.4	A	3.5	A	4.5	A	5.6
g. INTERSECTION		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**A**	**3.9**	**A**	**3.7**	**A**	**5.8**	**A**	**6.7**
11.^ Plum Creek Pkwy. & Praxis St./ Dawson Trails Blvd.	**Signal**																
a. EB L (Prot+Perm)		-	-	-	-	C	26.7	C	24.8	C	25.2	C	24.0	D	37.3	C	26.8
b. EB TR		-	-	-	-	C	27.5	C	23.2	-	-	-	-	-	-	-	-
c. EB T		-	-	-	-	-	-	-	-	C	33.6	D	39.7	C	30.8	D	38.5
d. EB R		-	-	-	-	-	-	-	-	C	26.3	C	26.8	C	24.7	C	26.8
e. WB L (Prot+Perm)		-	-	-	-	A	0.0	A	0.0	-	-	-	-	-	-	-	-
f. WB L (Prot+Perm) (Dual)		-	-	-	-	-	-	-	-	C	23.9	C	24.7	C	23.2	C	26.2
g. WB T		-	-	-	-	D	37.2	D	35.6	C	33.4	C	29.5	C	33.2	C	34.9
h. WB R		-	-	-	-	D	35.8	C	30.6	-	-	-	-	-	-	-	-
i. WB R (Free)		-	-	-	-	-	-	-	-	A	0.0	A	0.0	A	0.0	A	0.0
j. NB L (Perm)		-	-	-	-	A	0.0	A	0.0	-	-	-	-	-	-	-	-
k. NB L (Prot+Perm)		-	-	-	-	-	-	-	-	B	14.4	B	18.3	B	15.7	B	14.9
l. NB TR		-	-	-	-	C	20.3	B	10.3	-	-	-	-	-	-	-	-
m. NB T		-	-	-	-	-	-	-	-	C	25.3	C	26.2	C	27.5	C	27.0
n. NB R (Free)		-	-	-	-	-	-	-	-	A	0.0	A	0.0	A	0.0	A	0.0
o. SB L (Perm)		-	-	-	-	C	24.6	B	13.6	-	-	-	-	-	-	-	-
p. SB L (Prot+Perm) (Dual)		-	-	-	-	-	-	-	-	B	14.8	B	14.9	B	17.3	B	17.9
q. SB TR		-	-	-	-	C	21.3	B	11.4	-	-	-	-	-	-	-	-
r. SB T		-	-	-	-	-	-	-	-	C	25.4	C	22.3	C	27.0	C	27.3
s. SB R		-	-	-	-	-	-	-	-	C	27.9	C	24.6	C	31.8	D	35.3
t. INTERSECTION		**-**	**-**	**-**	**-**	**C**	**30.4**	**C**	**24.9**	**C**	**27.9**	**C**	**28.5**	**C**	**28.1**	**C**	**29.7**

TABLE 7 (CONTINUED)
2027 (BUILD-OUT) & 2050 (LONG-TERM) BACKGROUND & TOTAL TRAFFIC OPERATIONAL ANALYSIS COMPARISON

INTERSECTION	CONTROL	2027 (BUILD-OUT)								2050 (LONG-TERM)							
		BACKGROUND				TOTAL				BACKGROUND				TOTAL			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
12.^ Praxis St. & East/West Collector	**TWSC**																
a. WB R	Stop	-	-	-	-	-	-	-	-	B	13.1	B	10.2	C	18.3	B	12.5
b. SB L		-	-	-	-	-	-	-	-	A	9.2	A	8.4	B	11.1	B	10.1
c. INTERSECTION		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**A**	**2.0**	**A**	**1.3**	**A**	**1.9**	**A**	**0.9**
13.^ Prairie Hawk Dr. & Brickyard Cir. (North)	**TWSC**																
a. EB L	Stop	-	-	-	-	B	10.2	B	10.9	-	-	-	-	B	10.4	B	10.7
b. EB R	Stop	-	-	-	-	A	0.0	A	0.0	-	-	-	-	A	0.0	A	0.0
c. NB L		-	-	-	-	A	0.0	A	0.0	-	-	-	-	A	0.0	A	0.0
d. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**1.9**	**A**	**2.5**	**-**	**-**	**-**	**-**	**A**	**2.1**	**A**	**2.3**
14.^ Prairie Hawk Dr. & Brickyard Cir. (South)	**TWSC**																
a. EB L	Stop	-	-	-	-	A	9.2	A	9.4	-	-	-	-	A	8.9	A	9.0
b. EB R	Stop	-	-	-	-	A	0.0	A	0.0	-	-	-	-	A	0.0	A	0.0
c. NB L		-	-	-	-	A	0.0	A	0.0	-	-	-	-	A	0.0	A	0.0
d. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**3.4**	**A**	**4.5**	**-**	**-**	**-**	**-**	**A**	**3.5**	**A**	**4.7**
15.^ West Site Access & Brickyard Cir.	**TWSC**																
a. EB L	Stop	-	-	-	-	B	12.8	C	20.9	-	-	-	-	B	14.3	D	34.5
b. EB R	Stop	-	-	-	-	A	9.7	A	9.7	-	-	-	-	B	10.3	A	10.2
c. NB LT		-	-	-	-	A	7.6	A	8.0	-	-	-	-	A	7.7	A	8.2
d. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**8.7**	**A**	**9.8**	**-**	**-**	**-**	**-**	**A**	**9.1**	**B**	**12.6**
16.^ Fifer St. & Brickyard Cir. (North)	**TWSC**																
a. EB LTR		-	-	-	-	A	7.4	A	7.4	-	-	-	-	A	7.3	A	7.4
b. WB LTR		-	-	-	-	A	7.3	A	7.3	-	-	-	-	A	7.3	A	7.3
c. NB LTR	Stop	-	-	-	-	A	8.5	A	8.7	-	-	-	-	A	9.4	A	9.2
d. SB LTR	Stop	-	-	-	-	B	10.2	A	9.4	-	-	-	-	A	9.1	A	8.7
e. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**6.2**	**A**	**5.9**	**-**	**-**	**-**	**-**	**A**	**6.5**	**A**	**5.9**
17.^ Fifer St. & Brickyard Cir. (South)	**TWSC**																
a. EB L		-	-	-	-	A	7.6	A	7.5	-	-	-	-	A	7.5	A	7.5
b. WB L		-	-	-	-	A	7.6	A	7.6	-	-	-	-	A	7.6	A	7.6
c. NB LTR	Stop	-	-	-	-	C	15.0	C	17.7	-	-	-	-	C	15.0	C	17.6
d. SB LTR	Stop	-	-	-	-	B	11.7	B	11.8	-	-	-	-	B	10.1	B	10.1
e. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**7.1**	**A**	**9.4**	**-**	**-**	**-**	**-**	**A**	**6.5**	**A**	**8.8**
18.^ Prairie Hawk Dr. & Bowling Alley Access	**TWSC**																
a. EB LR	Stop	-	-	-	-	B	10.6	B	11.5	-	-	-	-	B	10.6	B	10.1
b. NB LT		-	-	-	-	A	0.0	A	0.0	-	-	-	-	A	0.0	A	0.0
c. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**0.1**	**A**	**0.3**	**-**	**-**	**-**	**-**	**A**	**0.1**	**A**	**0.5**

*** = intersection to undergo multiple modifications. See text for details.**
" = intersection to be modified by 2050
^ = new proposed intersection

B. Queuing Analysis

Queue lengths and associated storage requirements for through and auxiliary lanes (turn bays) at the study area intersections were computed utilizing the *Synchro 12* 95%tile reported queues for the 2027 (build-out) and 2050 (long-term) analysis horizons total traffic scenarios. Queue length calculations are based on a 25-foot vehicle length and reported as the total cumulative computed queue length for all traffic lanes in the lane group. Table 8 provides a summary of this analysis and comparison to the actual vehicle storage lengths provided for each of the existing study area intersections.

As shown in Table 8, the following additional queue related issues, beyond those identified in the background traffic scenarios, are projected to be experienced at the study area intersections, based on the reported queues, with the addition of the site generated traffic from the proposed Brickyard development in the 2027 (build-out) and 2050 (long-term) analysis horizons total traffic scenarios:

- **(7) Plum Creek Pkwy./I-25 SB Ramps**
  - 2050 (Long-Term) Analysis Horizon:
    - The WB through lane group queue is projected to exceed its capacity and spill back into the upstream intersection during the p.m. peak hour. The ability to increase the WB through lane group storage is limited due to the location of the I-25 NB Ramps intersection. Optimizing the traffic signal timings for actual traffic conditions will be the most effective means to mitigate this issue.

TABLE 8
2027 (BUILD-OUT) & 2050 (LONG-TERM) TOTAL TRAFFIC
SUMMARY OF QUEUING ANALYSIS

INTERSECTION (# OF LANES IN LANE GROUP)	EXISTING/PROPOSED STORAGE (FT)	2027 TOTAL TRAFFIC QUEUE LENGTH (FT) 95TH%		2050 TOTAL TRAFFIC QUEUE LENGTH (FT) 95TH%	
		AM PEAK	PM PEAK	AM PEAK	PM PEAK
1. Prairie Hawk Dr./E. Wolfensberger Rd.					
a. EB L (1)	325	61	48	62	48
b. EB TR (2)	1100	334	319	-	-
c. EB T (2)	1100	-	-	367	353
d. EB R (1)	150	-	-	18	20
e. WB L (1)	225	137	148	217	223
f. WB T (2)	1850	152	304	163	334
g. WB R (1)	100	49	58	47	56
h. NB L (1)	250	20	41	25	57
i. NB T (1/2)	250/500	76	132	137	201
j. NB R (1)	150	30	61	76	132
k. SB L (1/2)	350/700	134	127	178	176
l. SB T (1)	875	109	99	-	-
m. SB R (1)	350	15	21	-	-
n. SB TR (2)	1225	-	-	200	179
2. Prairie Hawk Dr./Atchison Way (TWSC)					
a. EB LR (1)	700	8	43	-	-
b. NB LT (1)	425	0	0	-	-
2.A. Prairie Hawk Dr./Atchison Way (Roundabout)					
a. EB LR (1)	700	-	-	50	50
b. NB T (1)	425	-	-	25	50
c. SB T (1)	125	-	-	25	25
d. SB R (1)	150	-	-	25	25
3. Prairie Hawk Dr./Topeka Way					
a. EB LTR (1)	200	8	5	3	5
b. WB LTR (1)	-	0	0	0	0
c. NB L (1)	100	0	40	10	25
d. SB L (1)	100	0	50	35	43
4. Atchison Way/Topeka Way					
a. EB LT (1)	150	0	0	-	-
b. EB L (1)	150	-	-	0	3
c. EB TR (1)	-	-	-	3	8
d. WB L (1)	150	-	-	5	15
e. WB TR (1)	-	-	-	8	5
f. NB L (1)	150	-	-	0	0
g. SB LR (1)	-	0	0	-	-
h. SB L (1)	150	-	-	0	0
5. Plum Creek Pkwy./Coachline Rd./W. Wolfensberger Rd.					
a. EB LT (1)	550	25	0	50	25
b. EB TR (1)	550	25	0	50	25
c. WB LT (1)	250	0	25	25	50
d. WB TR (1)	350	0	25	25	50
e. NB LT (1)	500	0	25	25	25
f. NB TR (1)	150	0	25	25	25
g. SB LT (1)	200	25	25	25	25
h. SB TR (1)	2450	25	25	25	25
6. Plum Creek Pkwy./Auburn Dr.					
a. EB LT (1)	800	0	0	-	-
b. EB L (1)	150	-	-	0	0
c. SB LR (1)	275	25	30	83	95
7. Plum Creek Pkwy./I-25 SB Ramps					
a. EB TR (3)	2700	420	336	-	-
b. EB T (3)	2700	-	-	854	1496
c. EB R (1)	-	-	-	0	0
d. WB L (1)	675	135	235	210	347
e. WB T (2)	350	258	321	475	504
f. NB L (1)	375	31	31	-	-
g. NB R (1)	750	54	57	-	-
h. SB L (2)	3300	331	703	315	906
i. SB LTR (1)	225	172	417	-	-
j. SB LT (1)	225	-	-	203	563
k. SB R (1)	-	-	-	0	0

INTERSECTION (# OF LANES IN LANE GROUP)	EXISTING/PROPOSED STORAGE (FT)	2027 TOTAL TRAFFIC QUEUE LENGTH (FT) 95TH%		2050 TOTAL TRAFFIC QUEUE LENGTH (FT) 95TH%	
		AM PEAK	PM PEAK	AM PEAK	PM PEAK
8. Plum Creek Pkwy./I-25 NB Ramps					
a. EB L (1/2)	650/800	220	246	590	508
b. EB T (3)	480	168	276	377	579
c. WB TR (1/2)	625/820	614	751	679	1350
d. WB R (1)	400	194	209	331	297
e. NB L (1)	400	86	92	286	248
f. NB LTR (1)	1700	54	47	309	254
g. NB R (1)	175	37	41	95	91
9. Plum Creek Pkwy./S. Wilcox St.					
a. EB L (1)	325	180	271	349	476
b. EB T (2)	1250	443	1039	334	1644
c. EB R (1)	600	0	0	0	0
d. WB L (1)	225	32	44	33	87
e. WB T (2)	880	747	760	-	-
f. WB R (1)	420	39	28	-	-
g. WB TR (3)	1300	-	-	1136	1218
h. NB L (2)	450	275	341	541	607
i. NB T (1)	250	111	147	154	195
j. NB R (1)	250	15	32	15	23
k. SB L (1)	200	57	137	85	248
l. SB T (1)	200	79	112	121	172
m. SB R (1)	200	49	65	125	165
10. Prairie Hawk Dr./Praxis St./West Site Access					
a. EB LTR (1)	-	-	-	25	25
b. WB LTR (1)	-	-	-	25	50
c. NB LT (1)	-	-	-	25	25
d. NB TR (1)	-	-	-	50	50
e. SB LT (1)	-	-	-	0	25
f. SB TR (1)	-	-	-	0	25
11. Plum Creek Pkwy./Praxis St./Dawson Trails Blvd.					
a. EB L (1)	150/200	66	59	189	137
b. EB TR (1)	-	226	197	-	-
c. EB T (2)	-	-	-	424	534
d. EB R (1)	250	-	-	50	22
e. WB L (1/2)	200/600	0	0	105	175
f. WB T (1/2)	-	174	672	444	488
g. WB R (1)	100/-	24	36	0	0
h. NB L (1)	-	0	0	80	53
i. NB TR (1)	-	22	28	-	-
j. NB T (2)	-	-	-	124	129
k. NB R (1)	150	-	-	0	0
l. SB L (1/2)	250/500	106	174	279	305
m. SB TR (1)	-	25	45	-	-
n. SB T (2)	-	-	-	96	152
o. SB R (1)	100	-	-	35	57
12. Praxis St./East/West Collector					
a. WB R (1)	-	-	-	55	15
b. SB L (1)	150	-	-	5	8
13. Prairie Hawk Dr./Brickyard Cir. (North)					
a. EB L (1)	-	8	13	5	5
b. EB R (1)	100	0	0	0	0
c. NB L (1)	100	0	0	0	0
14. Prairie Hawk Dr./Brickyard Cir. (South)					
a. EB L (1)	-	8	10	8	5
b. EB R (1)	100	0	0	0	0
c. NB L (1)	100	0	0	0	0
15. West Site Access/Brickyard Cir.					
a. EB L (1)	-	15	43	23	90
b. EB R (1)	100	28	25	38	33
c. NB LT (1)	-	10	18	10	23
16. Fifer St./Brickyard Cir. (North)					
a. EB LTR (1)	-	3	3	3	3
b. WB LTR (1)	-	3	3	3	3
c. NB LTR (1)	-	3	5	5	5
d. SB LTR (1)	-	0	3	3	3
17. Fifer St./Brickyard Cir. (South)					
a. EB L (1)	100	8	5	8	8
b. WB L (1)	100	3	3	5	5
c. NB LTR (1)	-	20	50	20	50
d. SB LTR (1)	-	20	28	13	20
18. Prairie Hawk Dr./Bowling Alley Access					
a. EB LR (1)	-	0	3	0	3
b. NB LT (1)	-	0	0	0	0

Legend

- Turn lane queue spills into thru lane
- Queue spills back into upstream intersection
- Through lane queue blocks LT lane
- Through lane queue blocks RT lane
- Through lane queue blocks LT & RT lanes

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C. Multimodal Assessment

The proposed Brickyard development has the potential to incorporate various multimodal and travel demand management (TDM) strategies and amenities that encourage and promote multimodal travel options. Incorporating multimodal and TDM strategies and amenities can help offset the impacts of the traffic generated by the development, as well enhance the overall safety, mobility, and environment of the surrounding transportation system. Some of the options may include:

- Enhanced Wayfinding – Enhanced route/guide signing to existing/proposed pedestrian, bicycle, transit, commercial/retail and recreational facilities.
    - The abutting Industrial Tributary Trail will connect the proposed development to the MAC and to downtown Castle Rock
- Resident Communications System – On-site resident communication system that provide residents with a conduit to share information on a variety of topics including ridesharing, car sharing, and bike sharing. The format of the system may incorporate on-site kiosks, newsletters, web site, etc.
- Electric Vehicle Charging Stations – On-site electric vehicle charging stations.
- Bicycle Amenities – On-site bicycle amenities such as long-term storage, bike racks, repair/maintenance shop, and wash areas.
- Bike, Scooter, Car Share Station(s) – Bike, scooter, and/or car sharing station(s) adjacent to or near the proposed development to encourage multimodal travel among residents.
- Improving existing and/or adding ADA compliant sidewalks and accessible routes.
- Adding crosswalk markings at strategic locations.
- Adding pavement markings and signage for on-street bicycle lanes.
- Adding a crosswalk to Prairie Hawk Dr. at one of the site accesses with RRFB's to enhance pedestrian safety.

As the development process moves forward, the Confluence development team looks forward to working collaboratively with Town staff to develop a plan that provides appropriate and beneficial on-site amenities, as well as off-site enhancements to encourage and promote multimodal options in the travel decisions made by the residents of the proposed Brickyard development.

D. Summary of Operational Analysis & Recommended Improvements

The following is a summary of analysis and recommendations for improvements to the existing and proposed study area intersections and roadways based on the proposed Brickyard development:

Study Area Roadways:

- **Prairie Hawk Dr. (Realignment)** - The following describes the geometric or operational improvements recommended for the Prairie Hawk Dr. (Realignment):
    - 2027 (Build-Out) Analysis Horizon – A new two-lane roadway (known as Praxis St.) will be constructed to extend west from the property boundary at the west site access intersection, then curve south at the future 2-lane roundabout location to intersect with Plum Creek Pkwy. at the Dawson Trails Blvd. intersection.

- 2050 (Long-Term) Analysis Horizon – By 2050, Prairie Hawk Dr. is anticipated to be realigned and modified, per the CRTMP, from Wolfensberger Rd. south along its existing alignment and the existing Atchison Way alignment to the intersection of Topeka Way. From Wolfensberger Rd. to Atchison Way, the roadway section will be a 4-lane major arterial. From Atchison Way to Topeka Way, the roadway section will be a 2-lane minor arterial. From Topeka Way, the alignment will continue south through the Miller's Landing property to the proposed roundabout intersection with the proposed West Site Access Roadway for The Brickyard development. From Topeka Way to Plum Creek Pkwy. the roadway section will be a 4-lane arterial.

- **Prairie Hawk Dr. (Existing Alignment)** – The following describes the geometric or operational modifications recommended for the existing Prairie Hawk Dr. alignment:
  - 2027 (Build-Out) Analysis Horizon – The existing alignment of Prairie Hawk Dr. adjacent to the frontage of the proposed Brickyard development shall be modified to a two-lane residential collector roadway with on-street bicycle lanes and on-street angled parking adjacent to the project site. From the north end of the project site to E. Wolfensberger Rd., Prairie Hawk Dr. will be reconstructed, with new curb and gutter installed along both sides of the roadway.
  - 2050 (Long-Term) Analysis Horizon – There are no other geometric or operational modifications or improvements anticipated through the 2050 (long-term) analysis horizon.
- **Plum Creek Pkwy.** - There are no geometric or operational modifications recommended for Plum Creek Pkwy. within the study area as a result of the proposed Brickyard development. It is anticipated that the following improvements will be implemented on Plum Creek Pkwy. within the study area:
  - 2027 (Build-Out) Analysis Horizon – It is not anticipated that any operational or capacity improvements will be made to Plum Creek Pkwy. within the study area through the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that Plum Creek Pkwy. will be improved to a 4-lane major arterial roadway from Wolfensberger Rd. to I-25 based on the CRTMP. It is also anticipated that a continuous westbound acceleration/deceleration lane from the I-25 SB Ramp intersection to the new Praxis St. intersection will be constructed. This lane will terminate into a free right turn lane at Praxis St. There will also be a continuous 3rd eastbound travel lane from the Praxis St./Dawson Trails intersection to Wilcox St.
- **Wolfensberger Rd.** – There are no geometric or operational modifications recommended for Wolfensberger Rd. within the study area as a result of the proposed Brickyard development. It is anticipated that the following regional improvements will be implemented on Wolfensberger Rd. within the study area:
  - 2027 (Build-Out) Analysis Horizon – It is not anticipated that any operational or capacity improvements will be made to Wolfensberger Rd. within the study area through the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that Wolfensberger Rd. will be improved, within the study area, to a 4-lane major arterial roadway from Plum Creek Pkwy. to Prairie Hawk Dr. based on the CRTMP.
- **Dawson Trails Blvd. -** It is anticipated that the following regional improvements will be implemented on Dawson Trails Blvd. within the study area:

- 2027 (Build-Out) Analysis Horizon – By the 2027 (build-out) analysis horizon, it is assumed that with the construction of the Crystal Valley Interchange, Dawson Trails Blvd. will be constructed as an access roadway south of Plum Creek Pkwy.
- 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that Dawson Trails Blvd. will be fully constructed and in place as a 4-lane major arterial roadway extending south from the Plum Creek Pkwy./Praxis St. intersection based on the CRTMP.

- **East/West Collector -** It is anticipated that the following improvements will be implemented on the East/West Collector within the study area:
  - 2027 (Build-Out) Analysis Horizon – It is assumed that the East/West Collector will not be constructed by the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the East/West Collector will be constructed as a 2-lane collector extending east from Praxis St. along the southern boundary of the proposed Brickyard development site. There is potential that this roadway may be connected to the existing Prairie Hawk Dr. at its southern terminus to provide emergency vehicle access only. No further connection is anticipated.

Study Area Intersections:

- **(1) Wolfensberger Rd./Prairie Hawk Dr.** – The following summarizes the geometric and operational conditions anticipated for the Wolfensberger Rd./Prairie Hawk Dr. intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site generated traffic.
  - 2027 (Build-Out) Analysis Horizon – By the 2027 (build-out) analysis horizon, it is anticipated that the south leg of the intersection will be modified to include a right turn lane with approximately 150 feet of storage. The south leg of the intersection will then have one left turn lane with a minimum of 250 feet of storage, one through lane, and one right turn lane with approximately 150 feet of storage on the northbound approach, and one southbound departure lane. Additionally, the westbound left turn lane storage will be increased from 150 feet to 225 feet in order to accommodate the projected queue as a result of the addition of the Brickyard development site generated traffic. No additional intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be modified as follows in order to accommodate the anticipated Prairie Hawk Dr. roadway improvements. The intersection will remain under actuated/coordinated traffic signal control with protected/permitted left turn phasing on all four approaches. The east leg of the intersection will have one left turn lane with approximately 225 feet of storage, two through lanes, and one right turn lane with approximately 100 feet of storage on the westbound approach, and two eastbound departure lanes. The west leg of the intersection will have one left turn lane with approximately 325 feet of storage, two through lanes, and one right turn lane with a minimum of 150 feet of storage on the eastbound approach, and two westbound departure lanes. The north leg of the intersection will have dual left turn lanes with a total of approximately 700 feet of storage, one through lane and one shared through/right turn lane on the southbound approach, and two northbound departure lanes. The south leg of the intersection will have one left turn lane with a

minimum of 250 feet of storage, two through lanes, and one right turn lane with approximately 150 feet of storage on the northbound approach, and two southbound departure lanes.

Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenario. Based on the queuing analysis, there are no additional projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic. Based on the queuing analysis, the available storage for the WB left turn queue will need to be increased from 150 feet to a minimum of 225 feet in order to accommodate the projected queue as a result of the addition of the Brickyard development site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(2) Prairie Hawk Dr./Atchison Way** – The following summarizes the geometric and operational conditions anticipated for the Prairie Hawk Dr./Atchison Way intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site generated traffic.
    - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be reconstructed as a 1-lane roundabout. The intersection will have yield control on the eastbound, northbound, and southbound approaches. The west leg of the intersection will have one shared left turn/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one through lane and one free-flow bypass right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one bypass through lane on the northbound approach, and one southbound departure lane. There are no other geometric or operational modifications or improvements anticipated through the 2050 (long-term) analysis horizon.

  Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no additional projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

  By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic. There are no additional projected queue related issues

associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(3) Prairie Hawk Dr./Topeka Way** – The following summarizes the geometric and operational conditions anticipated for the Prairie Hawk Dr./Topeka Way intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site generated traffic.
    - 2027 (Build-Out) Analysis Horizon – By the 2027 (build-out) analysis horizon, it is anticipated that the intersection will be restriped to include left turn lanes with 100' feet of storage on the northbound and southbound approaches. No other intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2050 (long-term) analysis horizon.

  Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS "D" or better) to a poor or failing level of service (LOS "E" or "F") with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

  By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS "D" or better) to a poor or failing level of service (LOS "E" or "F") with the addition of the site generated traffic. There are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(4) Atchison Way/Topeka Way** – The following summarizes the geometric and operational conditions anticipated for the Atchison Way/Topeka Way intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site generated traffic.
    - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be modified as follows in order to accommodate the anticipated Prairie Hawk Dr. roadway realignment and improvements. The intersection will have two-way stop control on the eastbound and westbound approaches. The east leg of the intersection will have one left turn lane with a minimum of 150 feet of storage and one shared through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one left turn lane with a minimum of 150 feet of storage and one shared through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one left turn lane with a minimum of 150 feet of storage, one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane and one shared through/right turn lane on the northbound approach, and two southbound departure lanes.

Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic. There are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(5) Wolfensberger Rd./Plum Creek Pkwy./Coachline Rd.** – The following summarizes the geometric and operational conditions anticipated for the Wolfensberger Rd./Plum Creek Pkwy./Coachline Rd. intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site generated traffic.
    - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2050 (long-term) analysis horizon.

  Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

  By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic. There are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(6) Plum Creek Pkwy./Auburn Dr.** – The following summarizes the geometric and operational conditions anticipated for the Plum Creek Pkwy./Auburn Dr. intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site generated traffic.
    - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be modified as follows, in order to accommodate the anticipated Plum Creek Pkwy. roadway improvements. The intersection will have stop control on the southbound approach. The east leg of the intersection will have one right turn lane and two through lanes on the westbound approach, and two

eastbound departure lanes. The west leg of the intersection will have one left turn lane with a minimum of 150 feet of storage and two through lanes on the eastbound approach, and two westbound departure lanes. The north leg of the intersection will have one shared left turn/right turn lane on the southbound approach, and one northbound departure lane.

Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no additional projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic. However, it is projected that the SB shared left turn/right turn lane group will experience a poor level of service (LOS “E”) during the p.m. peak hour in both the background and total traffic scenarios. This is a typical situation when a side street intersects a busy arterial roadway under stop-controlled conditions. There are no additional projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenario.

- **(7) Plum Creek Pkwy./I-25 SB Ramps** – The following summarizes the geometric and operational conditions anticipated for the Plum Creek Pkwy./I-25 SB Ramps intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site traffic.
  - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be modified as follows. The intersection will remain under actuated/coordinated signalized control with protected/permitted left turn phasing on the westbound approach. The northbound lanes will be removed at this intersection. The east leg of the intersection will have one left turn lane with approximately 675 feet of storage and two through lanes on the westbound approach, and three eastbound departure lanes. The west leg of the intersection will be modified to have three through lanes and a continuous free flow right turn lane extending back to Dawson Trails Blvd. with a raised channelizing island on the eastbound approach. The north leg will be modified to have dual left turn lanes, one shared left turn/through lane and one free flow right turn lane with a raised channelizing island on the southbound approach. The south leg will be modified to have only one southbound departure lane.

  Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenario.

By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic. However, the WB through lane group queue is projected to exceed its capacity and spill back into the upstream intersection during the p.m. peak hour. The ability to increase the WB through lane group storage is limited due to the location of the I-25 NB Ramps intersection. Optimizing the traffic signal timings for actual traffic conditions will be the most effective means to mitigate this issue.

- **(8) Plum Creek Pkwy./I-25 NB Ramps** – The following summarizes the geometric and operational conditions anticipated for the Plum Creek Pkwy./I-25 NB Ramps intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site traffic.
    - 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon it is anticipated that the intersection will be modified as follows. The intersection will remain a four-legged intersection operating under actuated/coordinated traffic signal control with protected/permitted left turn phasing on the eastbound approach. The east leg of the intersection will be modified to have one dedicated right turn lane, one shared through/right turn lane, one through lane, and one through lane that will accommodate the queuing needed for the left turn lane at the adjacent SB ramp intersection. The west leg of the intersection will be modified to have dual left turn lanes with a total of approximately 800 feet of storage and three through lanes on the eastbound approach, and two westbound departure lanes. The north leg will be modified to have an additional northbound departure lane. The south leg will remain unchanged.

  Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no additional projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

  By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic. However, it is projected that the westbound shared through/ right turn lane group will experience a failing level of service (LOS “F”) during both the background and total traffic scenarios in the PM peak hour. Optimizing the traffic signal timing for actual traffic conditions will be the most effective means to mitigate this issue. There are no additional projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(9) Plum Creek Pkwy./Wilcox St.** – The following summarizes the geometric and operational conditions anticipated for the Plum Creek Pkwy./Wilcox St. intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site traffic.

- 2027 (Build-Out) Analysis Horizon – No major intersection modifications or improvements are anticipated by the 2027 (build-out) analysis horizon.
- 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon, it is anticipated that the westbound right turn lane will be converted into a shared through/right turn lane. It is also recommended that right turn overlap be implemented for the northbound and southbound right turn movements. These modifications would help alleviate queueing issues and mitigate the potential operational issues for these movements in the 2050 (long-term) analysis horizon.

Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS "D" or better) to a poor or failing level of service (LOS "E" or "F") with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no additional projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS "D" or better) to a poor or failing level of service (LOS "E" or "F") with the addition of the site generated traffic. Based on the queuing analysis, there are no additional projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(10) Prairie Hawk Dr./Praxis St./West Site Access** – The following summarizes the geometric and operational conditions anticipated for the Prairie Hawk Dr./Praxis St./West Site Access Roadway Intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site traffic.
  - 2027 (Build-Out) Analysis Horizon – This intersection is not anticipated to be constructed by the 2027 (build-out) analysis horizon. In its place will be the new two-lane roadway segment referred to as Praxis St., constructed from the west site access intersection to extend west from the property boundary, then curve south at the future 2-lane roundabout location to then intersect with Plum Creek Pkwy. at the Dawson Trails Blvd. intersection.
  - 2050 (Long-Term) Analysis Horizon – By the 2050 (long-term) analysis horizon, it is anticipated that the intersection will be constructed as follows. The intersection is assumed to be a four-legged two-lane roundabout under yield control on all four approaches. The east and west legs of the roundabout will have one approach/entry lane and one departure/exit lane. The north and south legs of the roundabout will have two approach/entry lanes and two departure/exit lanes. No additional modifications or improvements are anticipated by the 2050 (long-term) analysis horizon.

  By the 2050 (long-term) analysis horizon it is projected that the roundabout, overall, as well as all lane groups will operate with acceptable levels of service (LOS "D" or better) with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(11) Plum Creek Pkwy./Praxis St./Dawson Trails Blvd.** – The following summarizes the geometric and operational conditions anticipated for the Plum Creek Pkwy./Praxis St./Dawson Trails Blvd. intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site traffic.

    - 2027 (Build-Out) Analysis Horizon – The intersection is anticipated to be constructed by the 2027 (build-out) analysis horizon to include the following. The intersection will operate under traffic signal control with permitted left turn phasing on the northbound and southbound approaches and protected plus permitted phasing on the eastbound and westbound approaches. The east leg of the intersection will have one left turn lane with approximately 200 feet of storage, one through lane and one right turn lane with 100' feet of storage on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one left turn lane with 150 feet of storage and one shared through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one left turn lane with 250' feet of storage and one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane with a minimum of 100 feet of storage and one shared through/right turn lane on the northbound approach, and one southbound departure lane. The south leg of the intersection will be constructed by others, as Dawson Trails Blvd. in order to provide access from the Crystal Valley interchange.
    - 2050 (Long-Term) Analysis Horizon – By the 2050 (Long-Term) Analysis Horizon it is anticipated the following additional improvements will be in place. The intersection will operate under actuated/coordinated traffic signal control with protected plus permitted left turn phasing on all four approaches. The east leg of the intersection will have dual left turn lanes with a minimum total of 600 feet of storage, two through lanes and one continuous free-flow right turn lane extending back to the I-25 SB Ramps with a raised channelizing island on the westbound approach, and two eastbound departure lanes plus a northbound to eastbound right turn auxiliary lane from Dawson Trails Blvd. to the I-25 SB ramp. The west leg of the intersection will have one left turn lane with a minimum of 200 feet of storage, two through lanes and one right turn lane with a minimum of 250 feet of storage on the eastbound approach, and two westbound departure lanes. The north leg of the intersection will have dual left turn lanes with a minimum total of 500 feet of storage, two through lanes, and one right turn lane with approximately 100 feet of storage on the southbound approach, and two northbound departure lanes plus a westbound to northbound right turn auxiliary lane from Plum Creek Pkwy. to the East/West Collector roadway. The south leg of the intersection will have one left turn lane with a minimum of 200 feet of storage, two through lanes and one channelized free-flow right turn lane with a minimum of 150 feet of storage on the northbound approach, and two southbound departure lanes.

    Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS "D" or better) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

    By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service

(LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic. Based on the queuing analysis, there are no additional projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(12) Praxis St./East/West Collector** – The following summarizes the geometric and operational conditions anticipated for the Praxis St./East/West Collector intersection. They include both any planned regional improvements, as well as any recommended as a result of the addition of the proposed Brickyard development site traffic.
    - 2027 (Build-Out) Analysis Horizon – This intersection is not anticipated to be constructed by the 2027 (build-out) analysis horizon.
    - 2050 (Long-Term) Analysis Horizon – By the 2050 (Long-Term) analysis horizon it is anticipated that this intersection will be constructed to accommodate the Castle Meadows development. The intersection will be limited to three-quarter movement access. The intersection will be a “T” intersection with stop sign control on the east leg. The east leg of the intersection will have one right turn lane on the westbound approach, and one eastbound departure lane. The north leg of the intersection will have one left turn lane, and two through lanes on the southbound approach, and two northbound departure lanes. The south leg of the intersection will have two through lanes and one channelized continuous free-flow right turn lane extending to Plum Creek Pkwy. on the northbound approach, and two southbound departure lanes.

  Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS “D” or better) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

  By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS “D” or better) with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(13) Prairie Hawk Dr./Brickyard Cir. (North)** – The following summarizes the geometric and operational conditions anticipated for the Prairie Hawk Dr./Brickyard Cir. (North) intersection.
    - 2027 (Build-Out) Analysis Horizon – The intersection will be constructed concurrently with the Brickyard development by the developer to include the following. The intersection will have stop sign control on the eastbound approach. The west leg of the intersection will have one left turn lane and one right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane with a minimum of 100 feet of storage and one through lane on the northbound approach, and one southbound departure lane.
    - 2050 (Long-Term) Analysis Horizon – No additional modifications or improvements are anticipated by the 2050 (long-term) analysis horizon.

Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS “D” or better) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS “D” or better) with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenario. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(14) Prairie Hawk Dr./Brickyard Cir. (South)** – The following summarizes the geometric and operational conditions anticipated for the Prairie Hawk Dr./Brickyard Cir. (South) intersection.
    - 2027 (Build-Out) Analysis Horizon – The intersection will be constructed concurrently with the Brickyard development by the developer to include the following. The intersection will have stop sign control on the eastbound approach. The west leg of the intersection will have one left turn lane and one right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane with a minimum of 100 feet of storage and one through lane on the northbound approach, and one southbound departure lane.
    - 2050 (Long-Term) Analysis Horizon – No additional modifications or improvements are anticipated by the 2050 (long-term) analysis horizon.

  Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS “D” or better) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

  By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS “D” or better) with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenario. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(15) West Site Access/Brickyard Cir.** – The following summarizes the geometric and operational conditions anticipated for the West Site Access/Brickyard Cir. intersection.
    - 2027 (Build-Out) Analysis Horizon – The intersection will be constructed with the Brickyard development by the developer to include the following. The intersection will have stop sign control on the eastbound approach. The west leg of the intersection will have one left turn lane and one right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure

lane. The south leg of the intersection will have one shared left turn/through lane on the northbound approach, and one southbound departure lane.

- 2050 (Long-Term) Analysis Horizon – No additional modifications or improvements are anticipated by the 2050 (long-term) analysis horizon.

Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS "D" or better) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS "D" or better) with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(16) Fifer St./Brickyard Cir. (North)** – The following summarizes the geometric and operational conditions anticipated for the Fifer St./Brickyard Cir. (North) intersection.

  - 2027 (Build-Out) Analysis Horizon – The intersection will be constructed concurrently with the Brickyard development by the developer to include the following. The intersection will have stop sign control on the northbound and southbound approaches. The east leg of the intersection will have one shared left turn/through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one shared left turn/through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one shared left turn /through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one shared left turn/through/right turn lane on the northbound approach, and one southbound departure lane.

  - 2050 (Long-Term) Analysis Horizon – No additional modifications or improvements are anticipated by the 2050 (long-term) analysis horizon.

  Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS "D" or better) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

  By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS "D" or better) with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(17) Fifer St./Brickyard Cir. (South)** – The following summarizes the geometric and operational conditions anticipated for the Fifer St./Brickyard Cir. (South) intersection.

- 2027 (Build-Out) Analysis Horizon – The intersection will be constructed concurrently with the Brickyard development by the developer to include the following. The intersection will have stop sign control on the northbound and southbound approaches. The east leg of the intersection will have one left turn lane and one shared through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one left turn lane and one shared through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one shared left turn/through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one shared left turn/through/right turn lane on the northbound approach, and one southbound departure lane.
- 2050 (Long-Term) Analysis Horizon – No additional modifications or improvements are anticipated by the 2050 (long-term) analysis horizon.

Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS “D” or better) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS “D” or better) with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

- **(18) Prairie Hawk Dr./Bowling Alley Access** – The following summarizes the geometric and operational conditions anticipated for the Prairie Hawk Dr./Bowling Alley Access intersection.
  - 2027 (Build-Out) Analysis Horizon – The intersection will be constructed concurrently with the Brickyard development by the developer to include the following. The intersection will have stop sign control on the eastbound approach. The west leg of the intersection will have one shared left/right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one shared left turn/through lane on the northbound approach, and one southbound departure lane.
  - 2050 (Long-Term) Analysis Horizon – No additional modifications or improvements are anticipated by the 2050 (long-term) analysis horizon.

  Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS “D” or better) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will operate with acceptable levels of service (LOS “D” or better) with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenario. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

VII. CONCLUSIONS

Confluence Companies is proposing to redevelop a property containing approximately 31.18 acres of land within the jurisdictional limits of the Town of Castle Rock, Colorado. The subject property is currently developed as the now defunct Acme Brick Company. More specifically, the subject property is bound by industrial properties with access to Topeka Way on the north, Prairie Hawk Dr. and several residential properties on the east, undeveloped land to the south, and the proposed Miller’s Landing development to the west, which is currently undeveloped. At buildout, the proposed Brickyard development will consist of 384 multi-family (mid-rise) housing units, a 123-room hotel, 8,500 square feet of commercial/retail space, 22,900 square feet of high turnover (sit-down) restaurant/food hall space, 56,000 total square feet of general office and medical office space, a 15,000 square foot supermarket, a bowling alley with 64 lanes, and a 145,000 square-foot community recreation center.

Vehicular access for the proposed Brickyard development will be provided via an internal roadway network providing connectivity to the external transportation system at the following locations:

- West Access Roadway– A two-lane roadway extending from the west property boundary to intersect with the proposed extension of the realigned Prairie Hawk Dr. through the proposed Miller’s Landing development via a proposed two-lane roundabout. Prior to the construction of the roundabout, this two-lane roadway (to be known as Praxis St.) will extend west from the property boundary, then south to intersect with Plum Creek Pkwy. at the Dawson Trails Blvd. intersection.
- NE Site Access (Brickyard Cir. North) - A full movement access driveway intersecting the existing Prairie Hawk Dr. approximately 620 feet south of the NE property boundary of the development site.
- SE Site Access (Brickyard Cir. South) – A full movement access driveway intersecting the existing Prairie Hawk Dr. approximately 650 feet south of the proposed NE Access Roadway.
- Bowling Alley Access – A full movement access driveway intersecting the existing Prairie Hawk Dr. north of the NE Site Access will be constructed to provide direct access to the proposed bowling alley.

Based on these parameters, at buildout, the proposed Brickyard development is projected to generate 11,429 daily vehicle trips of which 888 will occur during the morning peak hour and 1,135 will occur during the evening peak hour.

The purpose of this study is to evaluate the impact of the vehicular trips projected to be generated by the proposed Brickyard development on the study area intersections and roadway system. The study includes 2022 (existing), 2027 (year of anticipated project build-out), and 2050 (long-term) analysis horizons.

Based on the analyses contained herein, recommendations for intersection improvements to accommodate the addition of the proposed Brickyard development traffic were developed, while considering the proposed Miller's Landing development, anticipated Dawson Trails development on the property south of Plum Creek Pkwy., the assumed Castle Meadows development on the property immediately to the south of the proposed Brickyard development, regional traffic volume growth, the construction of the new Crystal Valley Interchange, and planned/anticipated transportation system improvements for the study are roadways and intersections, based on the CRTMP.

The following is a summary of the recommendations to be the responsibility of the developer in order to mitigate the impact of the traffic projected to be generated by the proposed Brickyard development by the 2027 (build-out) analysis horizon:

- **Prairie Hawk Dr. (Existing Alignment)** - The existing alignment of Prairie Hawk Dr. adjacent to the frontage of the proposed Brickyard development shall be modified to a two-lane residential collector roadway with on-street bicycle lanes and on-street angled parking adjacent to the project site. From the north end of the project site to E. Wolfensberger Rd., Prairie Hawk Dr. will be reconstructed, with new curb and gutter installed along both sides of the roadway.
- **Praxis St.** – A new two-lane roadway will be constructed to extend west from the property boundary at the west site access intersection, then curve south at the future 2-lane roundabout location to intersect with Plum Creek Pkwy. at the Dawson Trails Blvd. intersection.
- **(1) Wolfensberger Rd./Prairie Hawk Dr. Intersection** – The Brickyard developer shall participate in funding the design and construction of the improvements to increase the available storage of the WB left turn lane from 150 feet to 225 feet in order to accommodate the projected queue as a result of the addition of the Brickyard development site generated traffic. The developer will also participate in funding the design and construction of a northbound right turn lane with a minimum of 150 feet of storage.
- **(3) Prairie Hawk Dr./Topeka Way** - The Brickyard developer will be responsible for funding and implementing the restriping of the intersection to include left turn lanes with 100' feet of storage on the northbound and southbound approaches.
- **(11) Plum Creek Pkwy./Praxis St./Dawson Trails Blvd.** – The Brickyard developer will share responsibility for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will operate under traffic signal control with permitted left turn phasing on the northbound and southbound approaches and protected plus permitted phasing on the eastbound and westbound approaches. The east leg of the intersection will have one left turn lane with approximately 200 feet of storage, one through lane and one right turn lane with 100' feet of storage on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one left turn lane with 150 feet of storage and one shared through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one left turn lane with 250' feet of storage and one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane with a minimum of 100 feet of storage and one shared through/right turn lane on the northbound approach, and one southbound departure lane. The south leg of the intersection will be constructed by others, as Dawson Trails Blvd. in order to provide access from the Crystal Valley interchange.

- **(13) Prairie Hawk Dr./Brickyard Cir (North) Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign control on the eastbound approach. The west leg of the intersection will have one left turn lane and one right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane with a minimum of 100 feet of storage and one through lane on the northbound approach, and one southbound departure lane.
- **(14) Prairie Hawk Dr./Brickyard Cir (South) Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign control on the eastbound approach. The west leg of the intersection will have one left turn lane and one right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one left turn lane with a minimum of 100 feet of storage and one through lane on the northbound approach, and one southbound departure lane.
- **(15) West Site Access/Brickyard Cir. Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign control on the eastbound approach. The west leg of the intersection will have one left turn lane and one right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one shared left turn/through lane on the northbound approach, and one southbound departure lane.
- **(16) Fifer St./Brickyard Cir. (North) Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign control on the northbound and southbound approaches. The east leg of the intersection will have one shared left turn/through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one shared left turn/through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one shared left turn/through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one shared left turn/through/right turn lane on the northbound approach, and one southbound departure lane.
- **(17) Fifer St./Brickyard Cir. (South) Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign control on the northbound and southbound approaches. The east leg of the intersection will have one left turn lane and one shared through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one left turn lane and one shared through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one shared left turn/through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one shared left

turn/through/right turn lane on the northbound approach, and one southbound departure lane.

- **(18) Prairie Hawk Dr./Bowling Alley Access Intersection** – The Brickyard developer will be responsible for the design and construction of the intersection concurrently with the Brickyard development to include the following. The intersection will have stop sign control on the eastbound approach. The west leg of the intersection will have one shared left/right turn lane on the eastbound approach and one westbound departure lane. The north leg of the intersection will have one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one shared left turn/through lane on the northbound approach, and one southbound departure lane.

The following is a summary of the recommendations to be the responsibility of others in order to mitigate future traffic impacts caused by existing and future background traffic growth within the study area. These improvements will be needed by the 2050 (long-term) analysis horizon:

- **Prairie Hawk Dr. (Realignment)** - By 2050, Prairie Hawk Dr. is anticipated to be realigned and modified, per the CRTMP, from Wolfensberger Rd. south along its existing alignment and the existing Atchison Way alignment to the intersection of Topeka Way. From Wolfensberger Rd. to Topeka Way, the roadway section will be a 4-lane major arterial. From Topeka Way, the alignment will continue south through the Miller's Landing property to the proposed roundabout intersection with the proposed West Site Access Roadway for The Brickyard development. From Topeka Way to Plum Creek Pkwy., the roadway section will be a 4-lane arterial.

- **(2) Prairie Hawk Dr./Atchison Way** – By 2050, a new 1-lane roundabout will be constructed at this intersection. The intersection will have yield control on the eastbound, northbound, and southbound approaches. The west leg of the intersection will have one shared left turn/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will have one through lane and one free-flow bypass right turn lane on the southbound approach, and two northbound departure lanes. The south leg of the intersection will have one bypass through lane on the northbound approach, and one southbound departure lane.
- **(7) Plum Creek Pkwy./I-25 SB Ramps** – By 2050, a new southbound free-flow right turn lane on the north leg of the intersection will be constructed that will include a continuous acceleration/deceleration lane on Plum Creek Pkwy. which will terminate into a free flow right turn lane onto the new Praxis St. roadway extension.
- **(8) Plum Creek Pkwy./I-25 NB Ramps** – By 2050, the intersection will be modified to include the following. The east leg of the intersection will be modified to have one dedicated right turn lane, one shared through/right turn lane, one through lane, and one through lane that will accommodate the queuing needed for the left turn lane at the adjacent SB ramp intersection. The west leg of the intersection will be modified to include a second eastbound left turn lane to access northbound I-25.
- **(9) Plum Creek Pkwy./S Wilcox St. –** By 2050, it is anticipated that the westbound right turn lane will be converted into a shared through/right turn lane. It is also recommended that right turn overlap be implemented for the northbound and southbound right turn movements.
- **(10) Prairie Hawk Dr./Praxis St./West Site Access –** By 2050, this intersection will be constructed with the realigned Prairie Hawk Dr. and Praxis St. extension to the south.

The intersection is assumed to be a four-legged two-lane roundabout under yield control on all four approaches. The east and west legs of the roundabout will have one approach/entry lane and one departure/exit lane. The north and south legs of the roundabout will have two approach/entry lanes and two departure/exit lanes.

- **(11) Plum Creek Pkwy./Praxis St./Dawson Trails Blvd. –** By 2050, it is anticipated that the following additional improvements will be in place. The east leg of the intersection will have dual left turn lanes with a minimum total of 600 feet of storage, two through lanes and one continuous free-flow right turn lane extending back to the I-25 SB Ramps with a raised channelizing island on the westbound approach, and two eastbound departure lanes plus a northbound to eastbound right turn auxiliary lane from Dawson Trails Blvd. to the I-25 SB ramp. The west leg of the intersection will have one left turn lane with a minimum of 200 feet of storage, two through lanes and one right turn lane with a minimum of 250 feet of storage on the eastbound approach, and two westbound departure lanes. The north leg of the intersection will have dual left turn lanes with a minimum total of 500 feet of storage, two through lanes, and one right turn lane with approximately 100 feet of storage on the southbound approach, and two northbound departure lanes plus a westbound to northbound right turn auxiliary lane from Plum Creek Pkwy. to the East/West Collector roadway. The south leg of the intersection will have one left turn lane with a minimum of 200 feet of storage, two through lanes and one channelized free-flow right turn lane with a minimum of 150 feet of storage on the northbound approach, and two southbound departure lanes.
- **(12) Praxis St./East/West/Collector –** By 2050, it is anticipated that this intersection will be constructed to accommodate the Castle Meadows/Millers Landing development projects. The intersection will be limited to three-quarter movement access. The intersection will be a “T” intersection with stop sign control on the east leg. The east leg of the intersection will have one right turn lane on the westbound approach, and one eastbound departure lane. The north leg of the intersection will have one left turn lane, and two through lanes on the southbound approach, and two northbound departure lanes. The south leg of the intersection will have two through lanes and one channelized continuous free-flow right turn lane on the northbound approach, and two southbound departure lanes.



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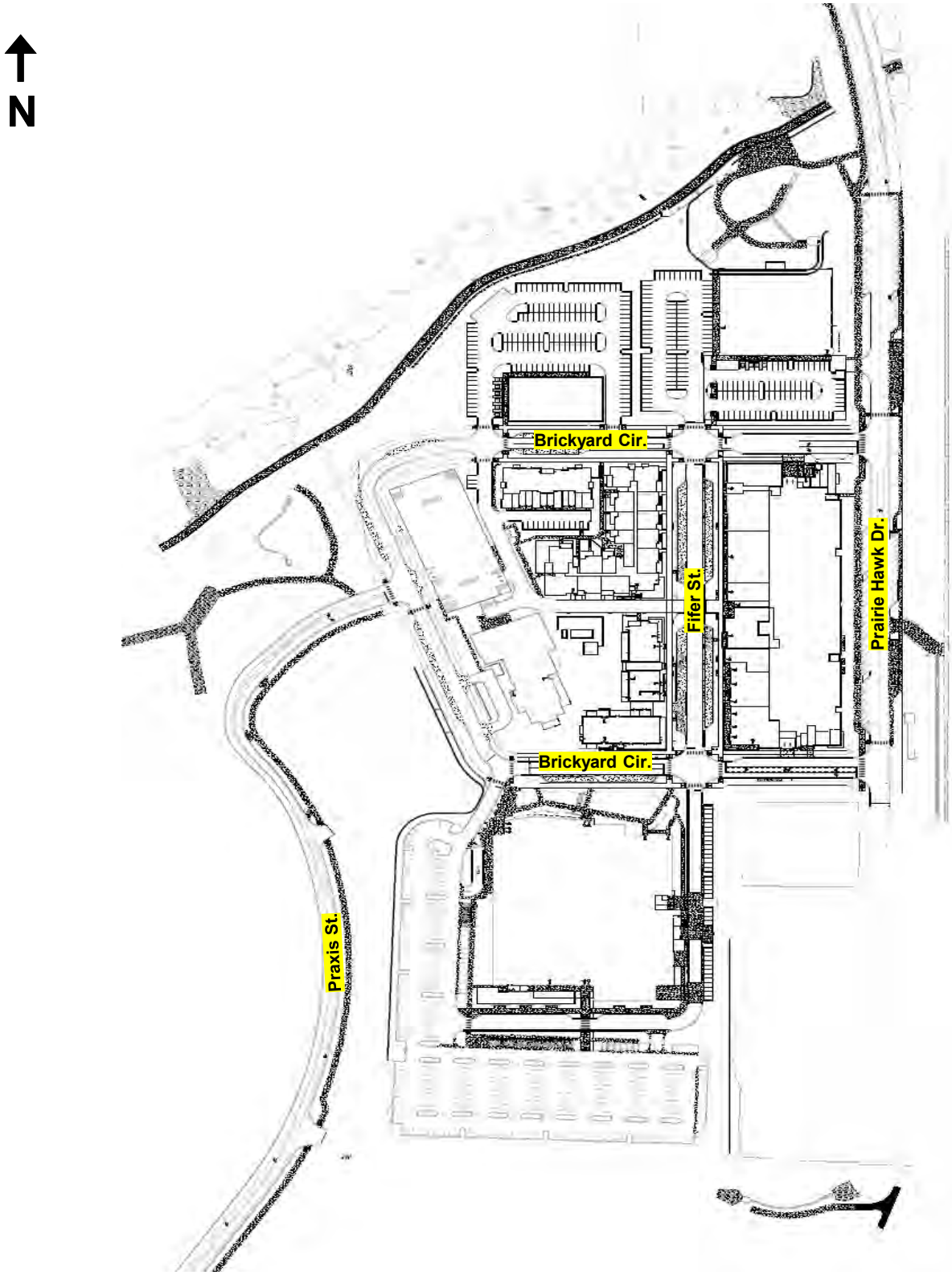
Vicinity Map

The Brickyard

Confluence Companies

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Figure 1



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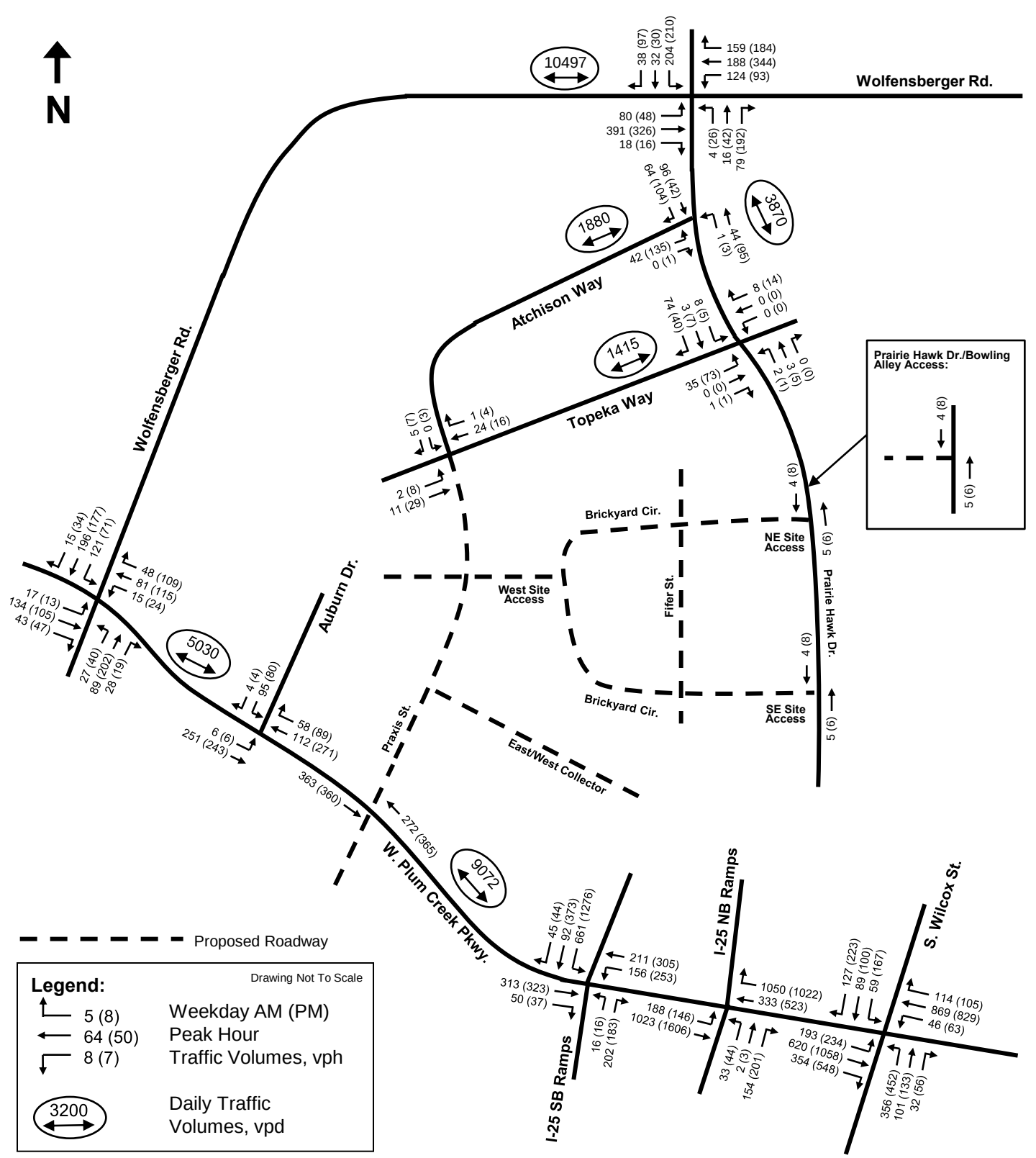
Conceptual Site Plan

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Figure 2



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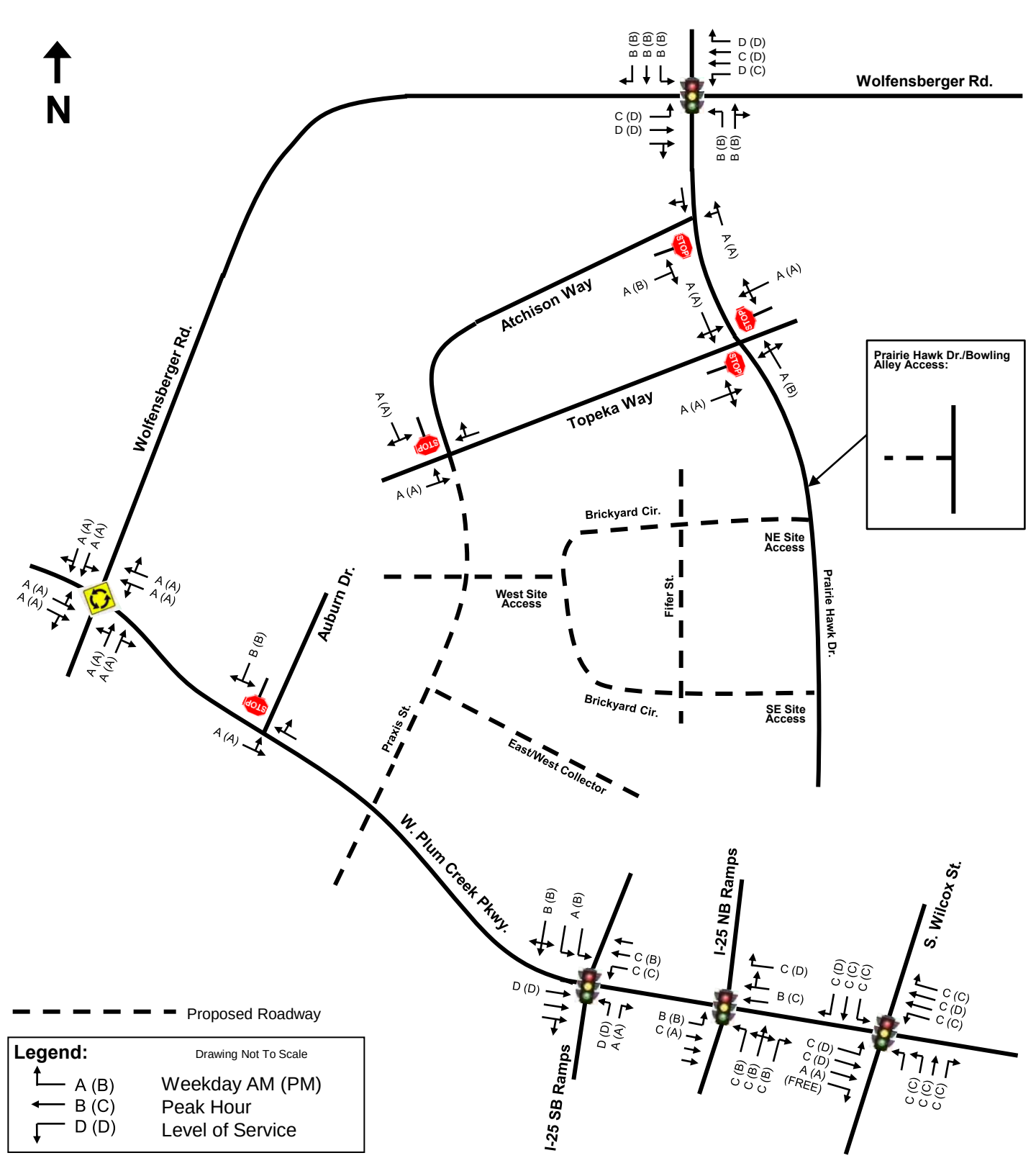
2022 (Existing) Traffic Volumes

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Figure 3



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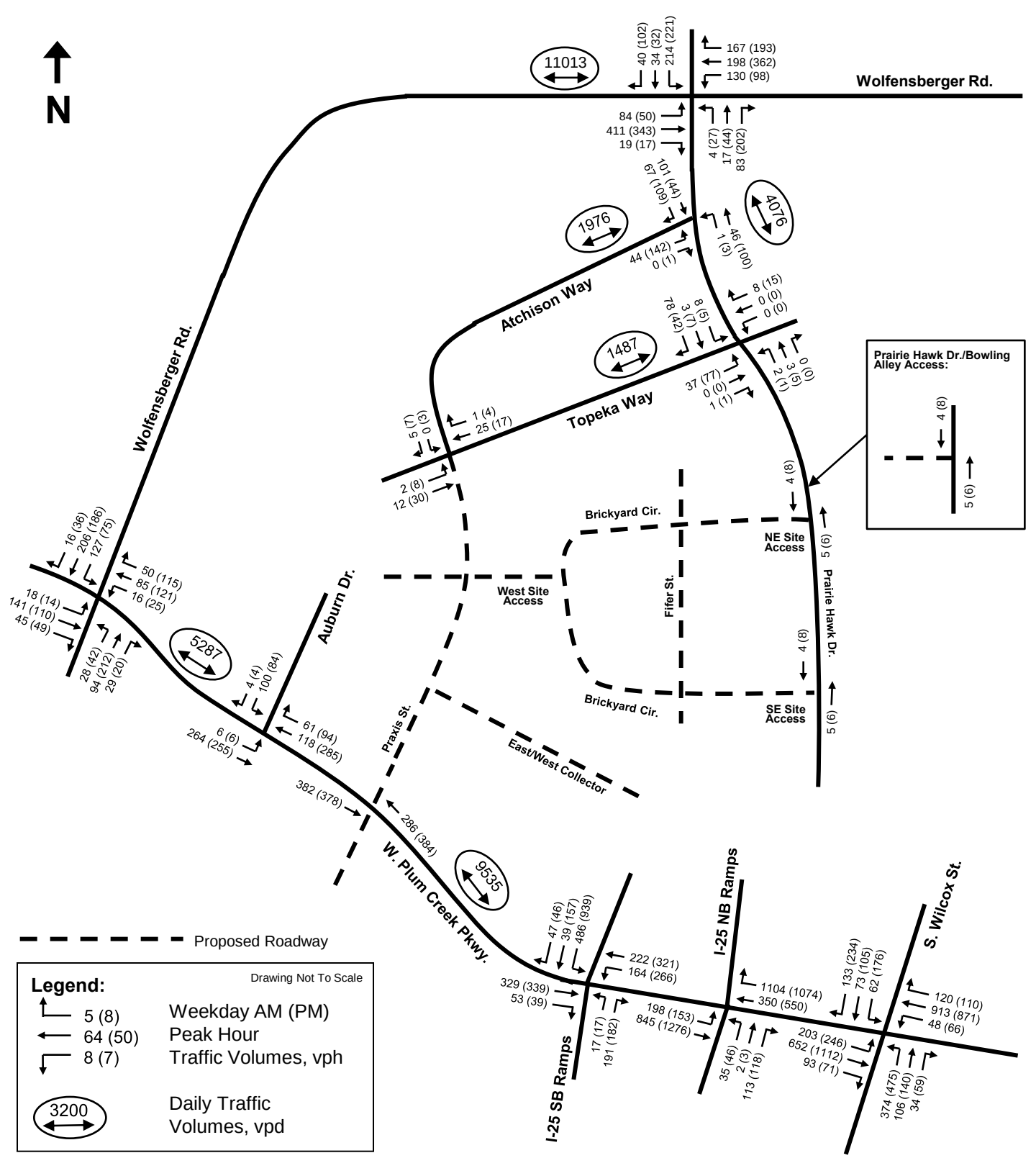
2022 (Existing) Traffic Operational Conditions

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Figure 4



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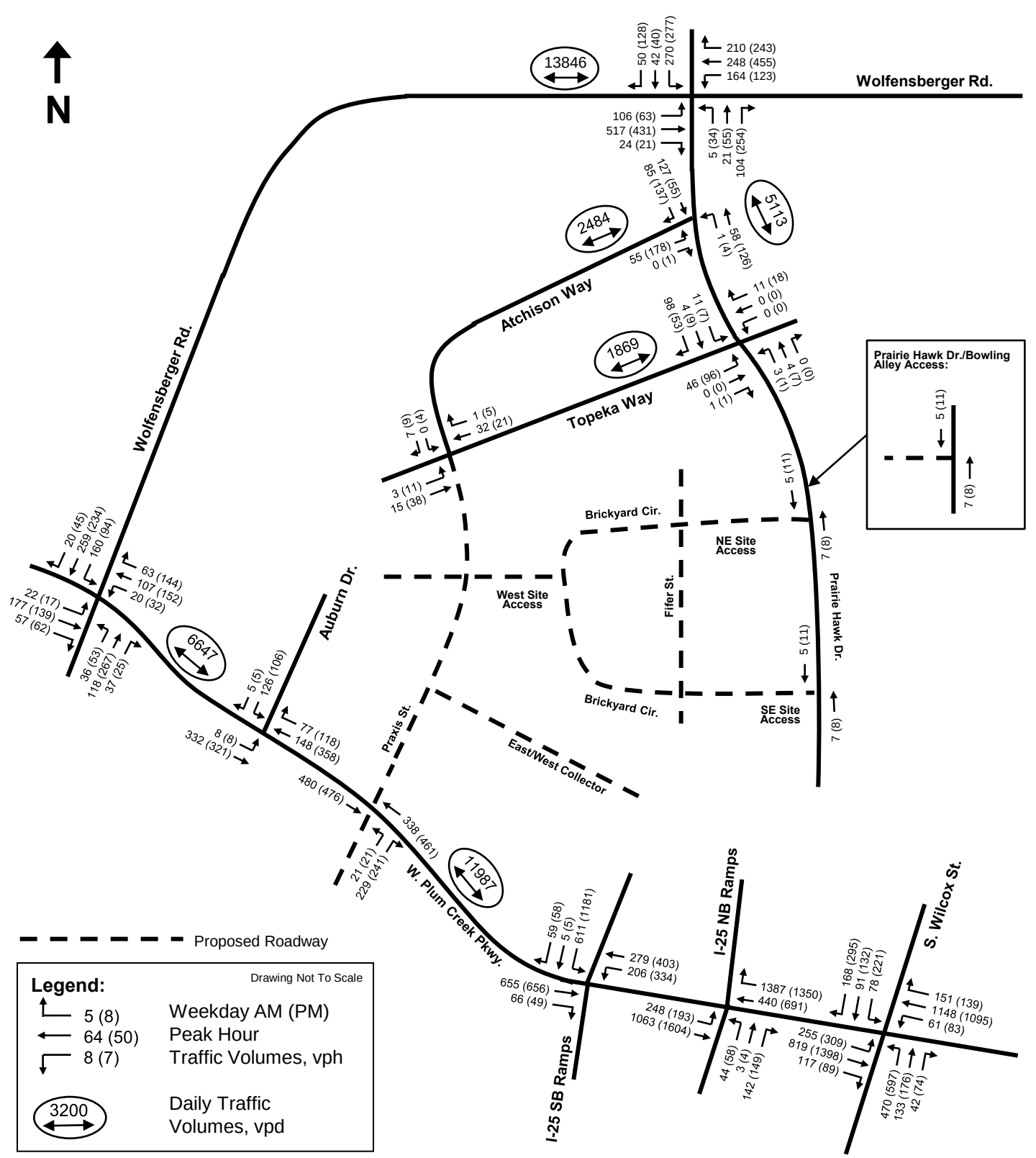
2027 (Build-Out) Analysis Horizon
Regional Background Traffic Volumes

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Figure 5



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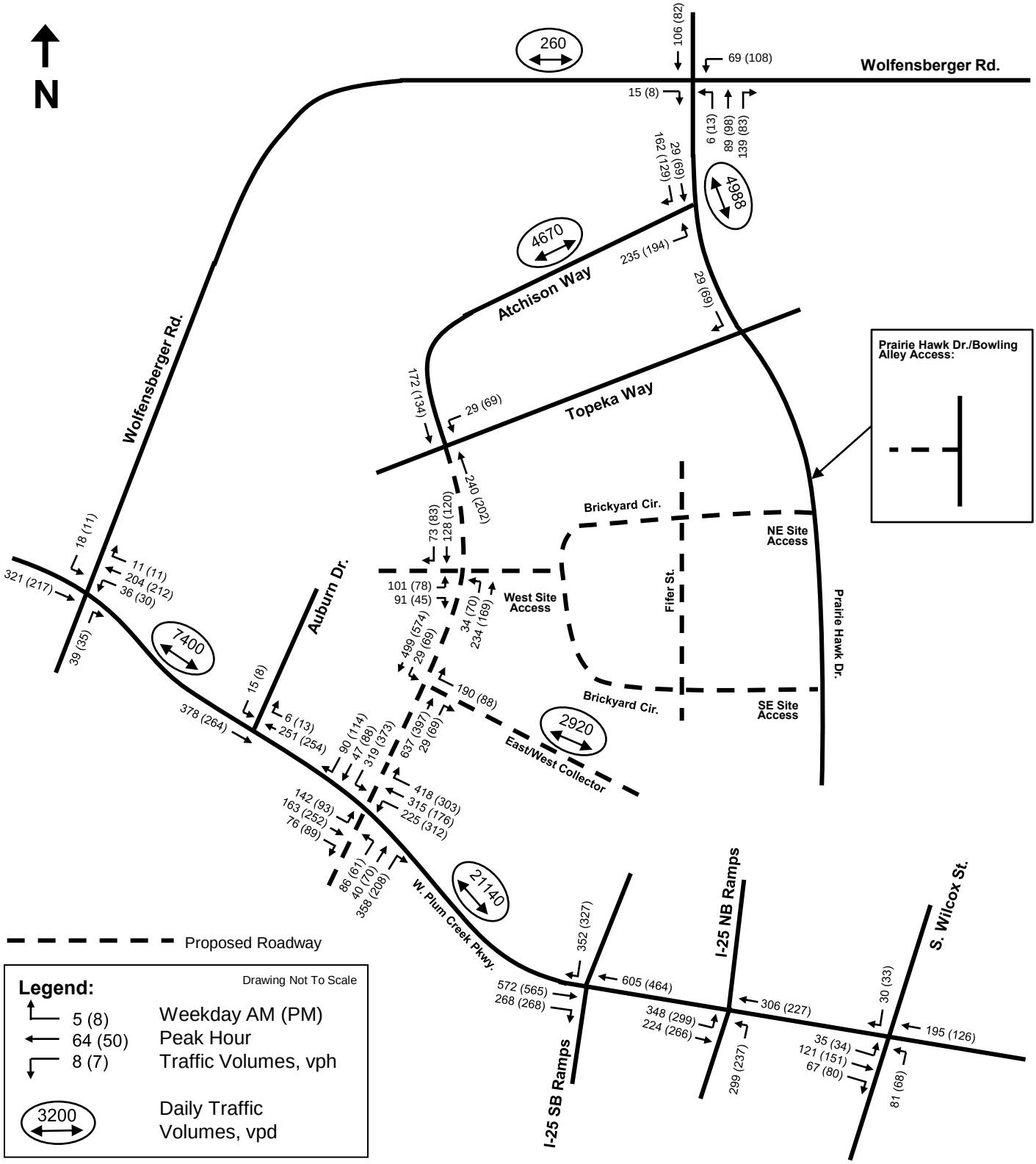
2050 (Long-Term) Analysis Horizon
Regional Background Traffic Volumes

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Figure 6



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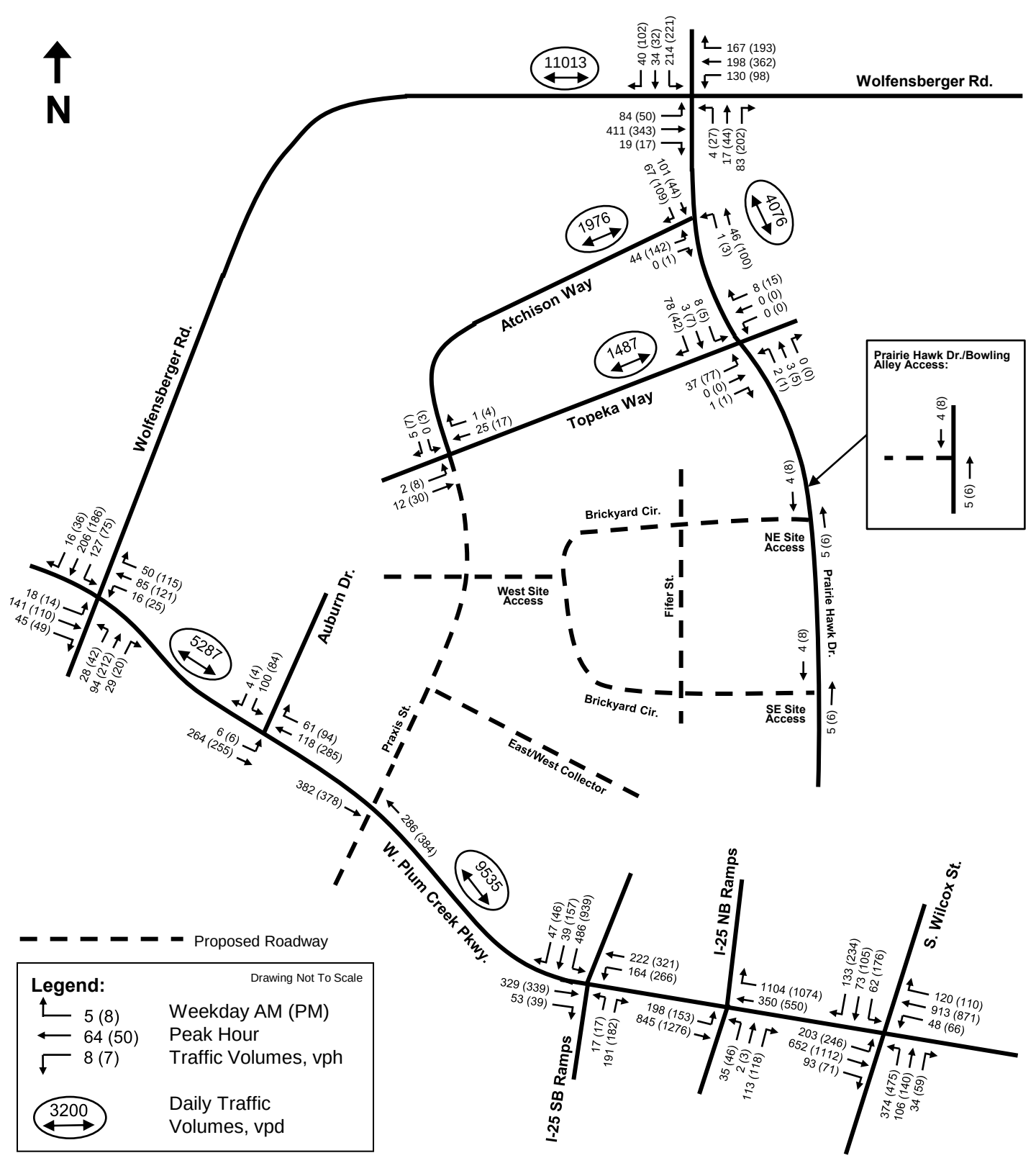
2050 (Long-Term) Analysis Horizon
Local Background Traffic Volumes

The Brickyard

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Figure 7



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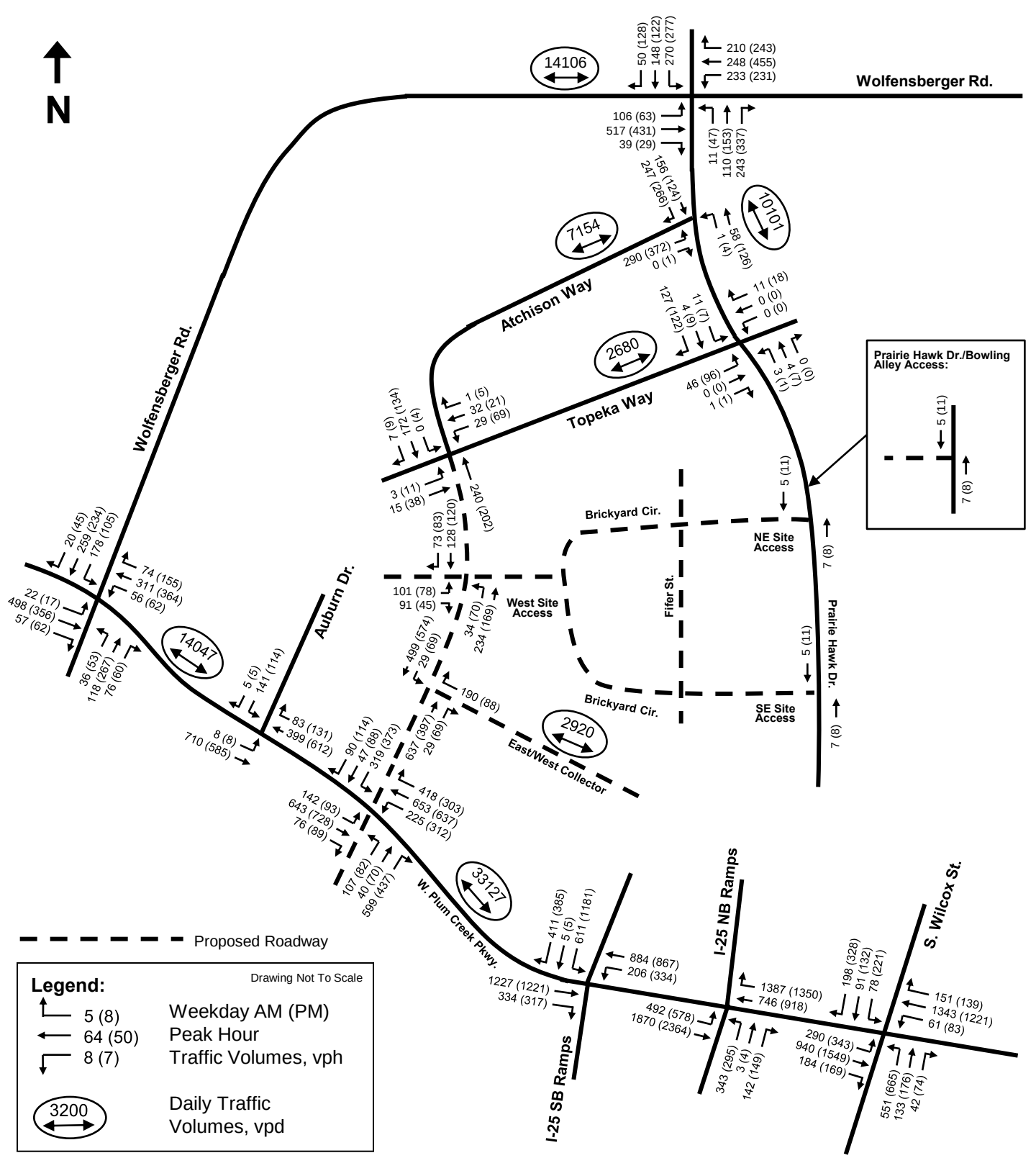
2027 (Build-Out) Analysis Horizon
Total Background Traffic Volumes

The Brickyard

Confluence Companies

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Figure 8



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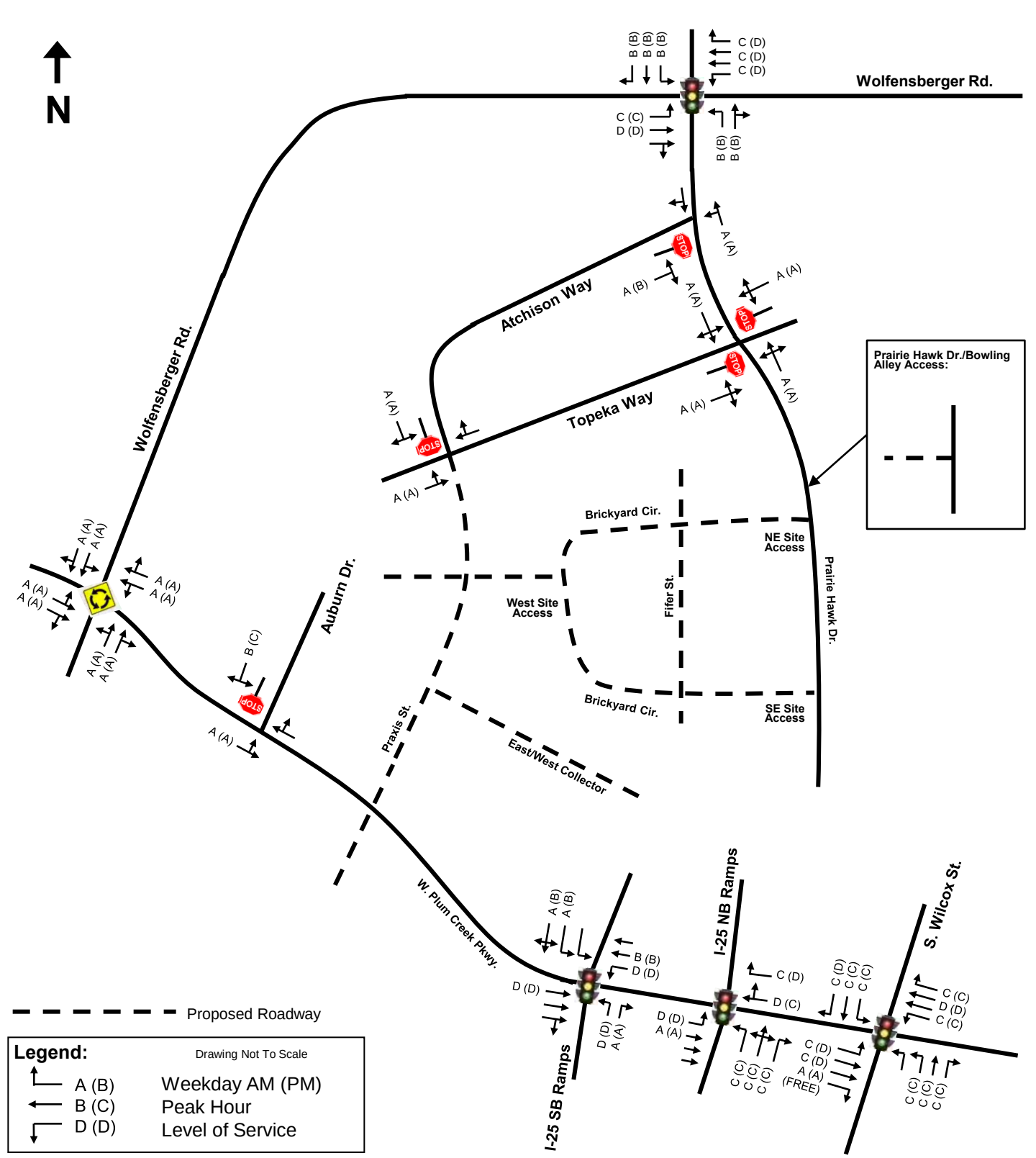
2050 (Long-Term) Analysis Horizon
Total Background Traffic Volumes

The Brickyard

Confluence Companies

HKS #200726

Figure 9

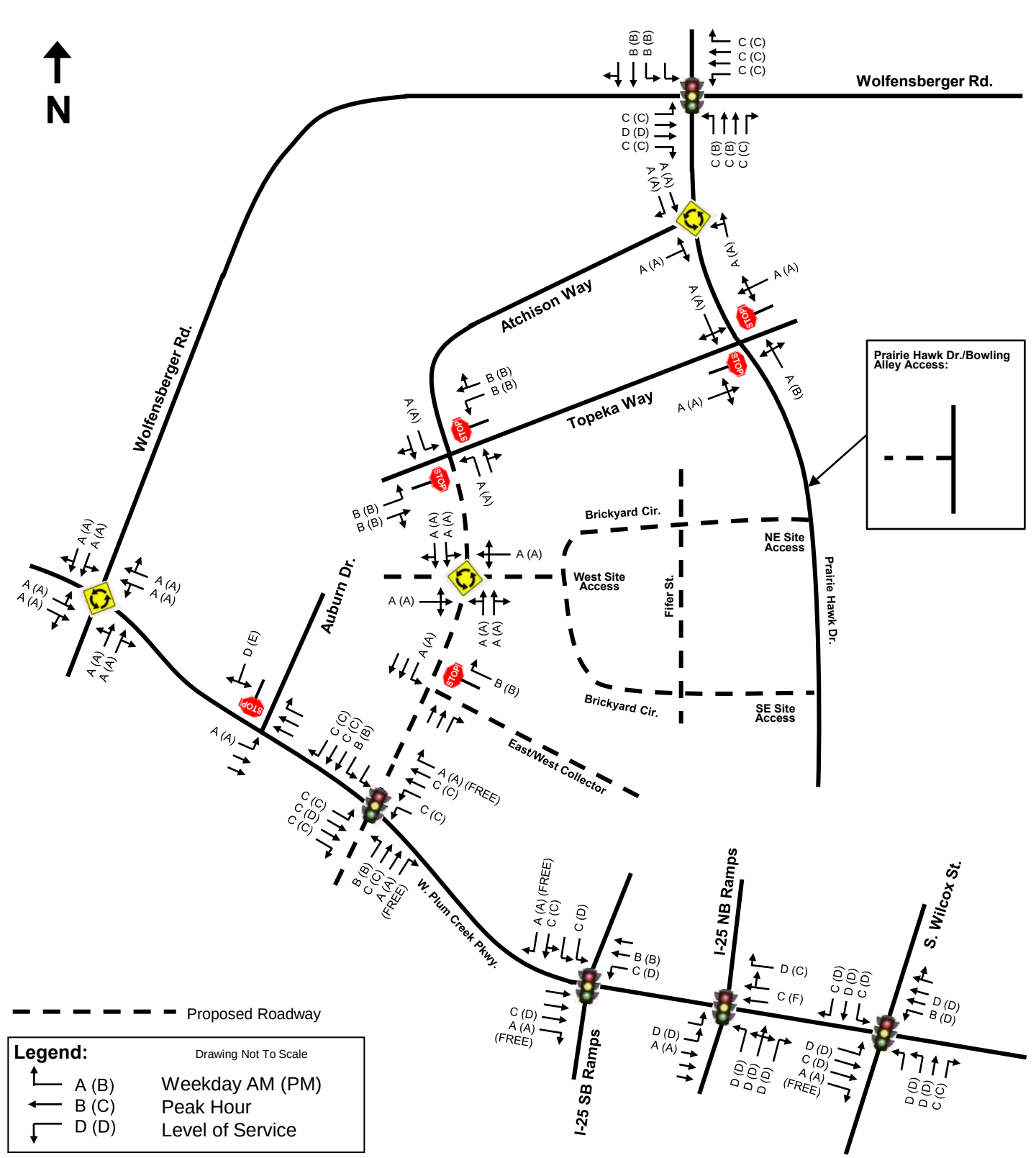


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2027 (Build-Out) Analysis Horizon
Background Traffic Operational Conditions

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Figure 10

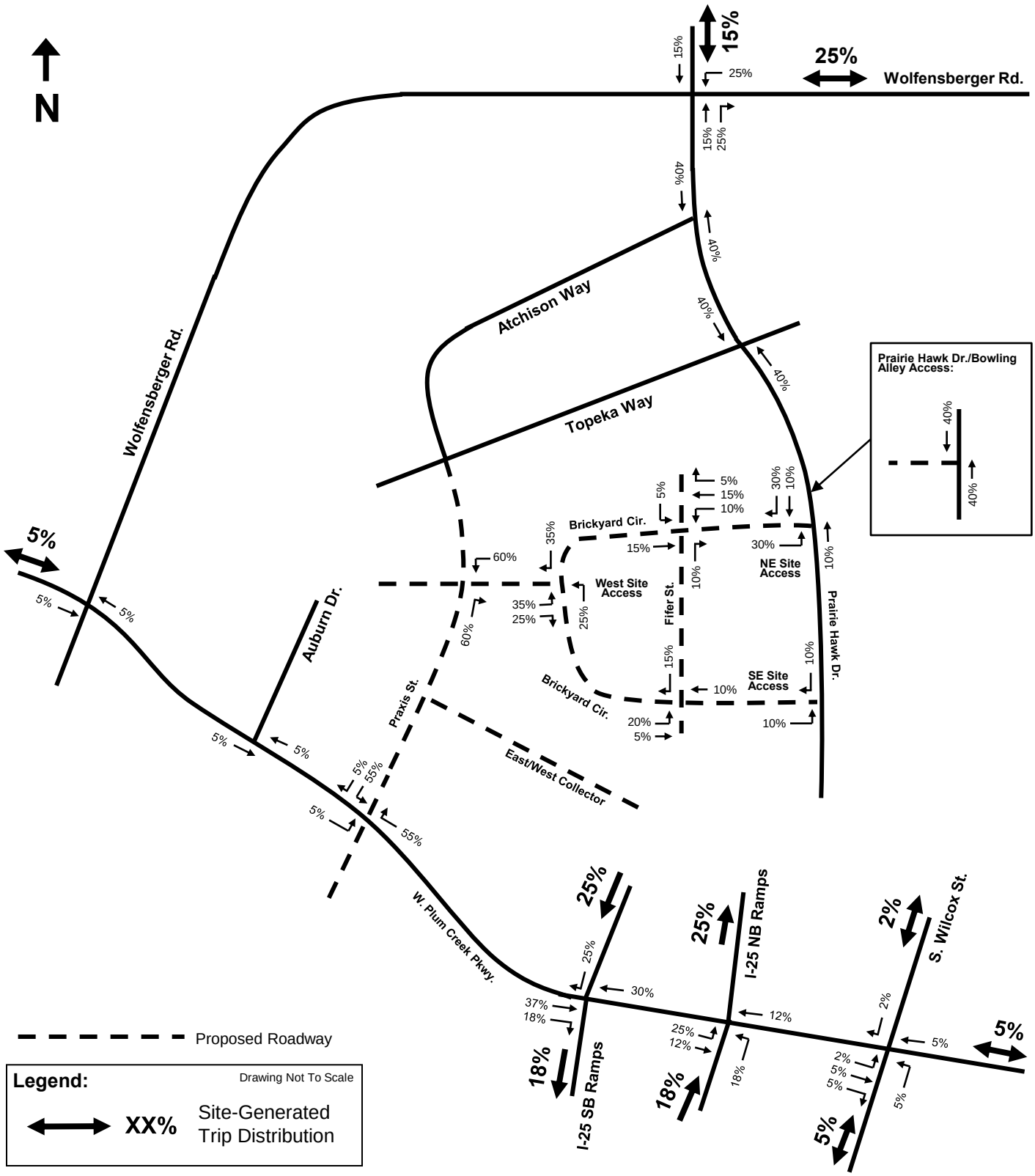


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2050 (Long-Term) Analysis Horizon
Background Traffic Operational Conditions

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Figure 11

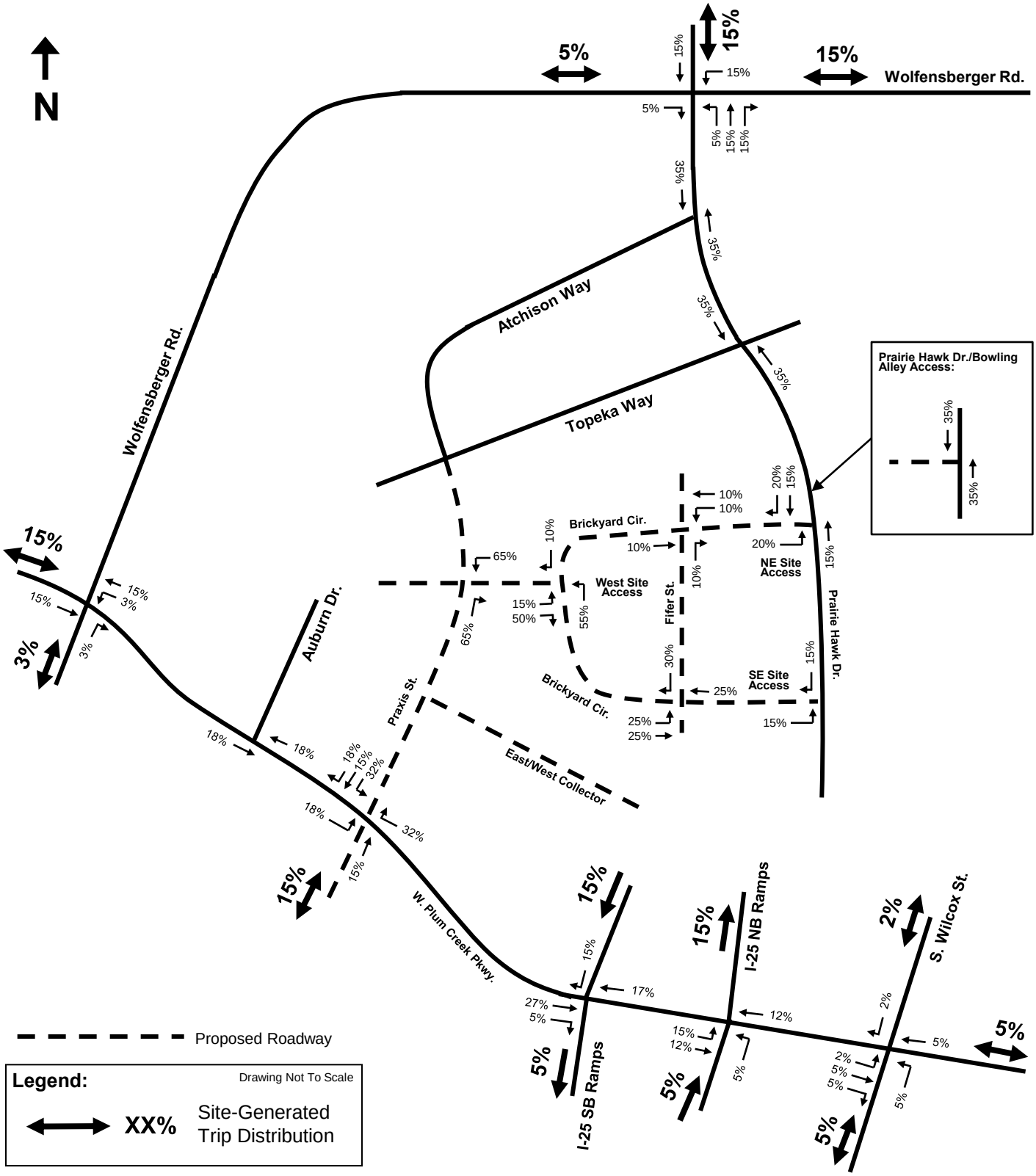


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The Brickyard
Confluence Companies
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2027 (Build-Out) Analysis Horizon
Site Generated Trip Distribution: Residential Land Use

Figure 12

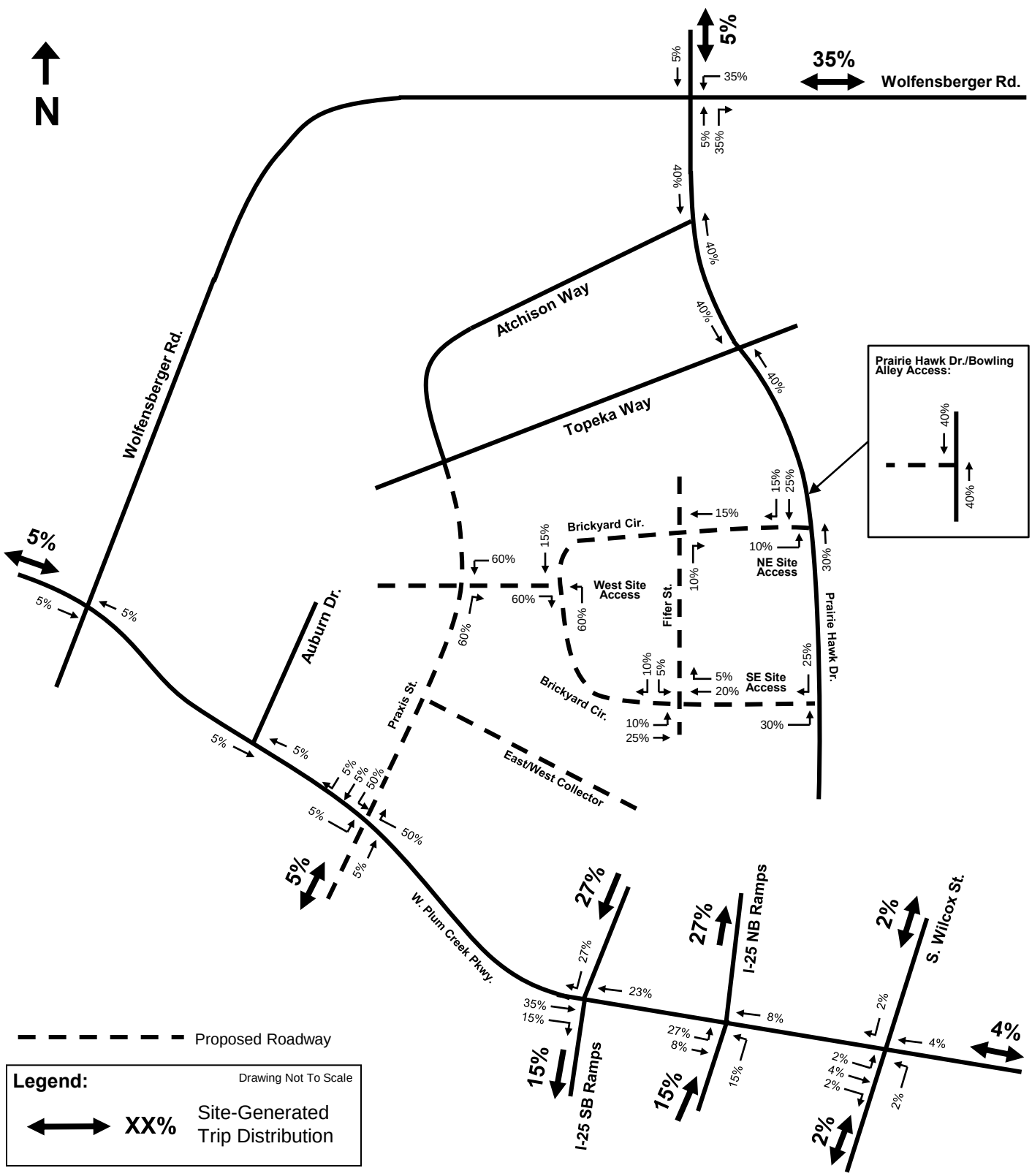


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Confluence Companies
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2027 (Build-Out) Analysis Horizon
Site Generated Trip Distribution: Commercial/Retail Land Use

Figure 13

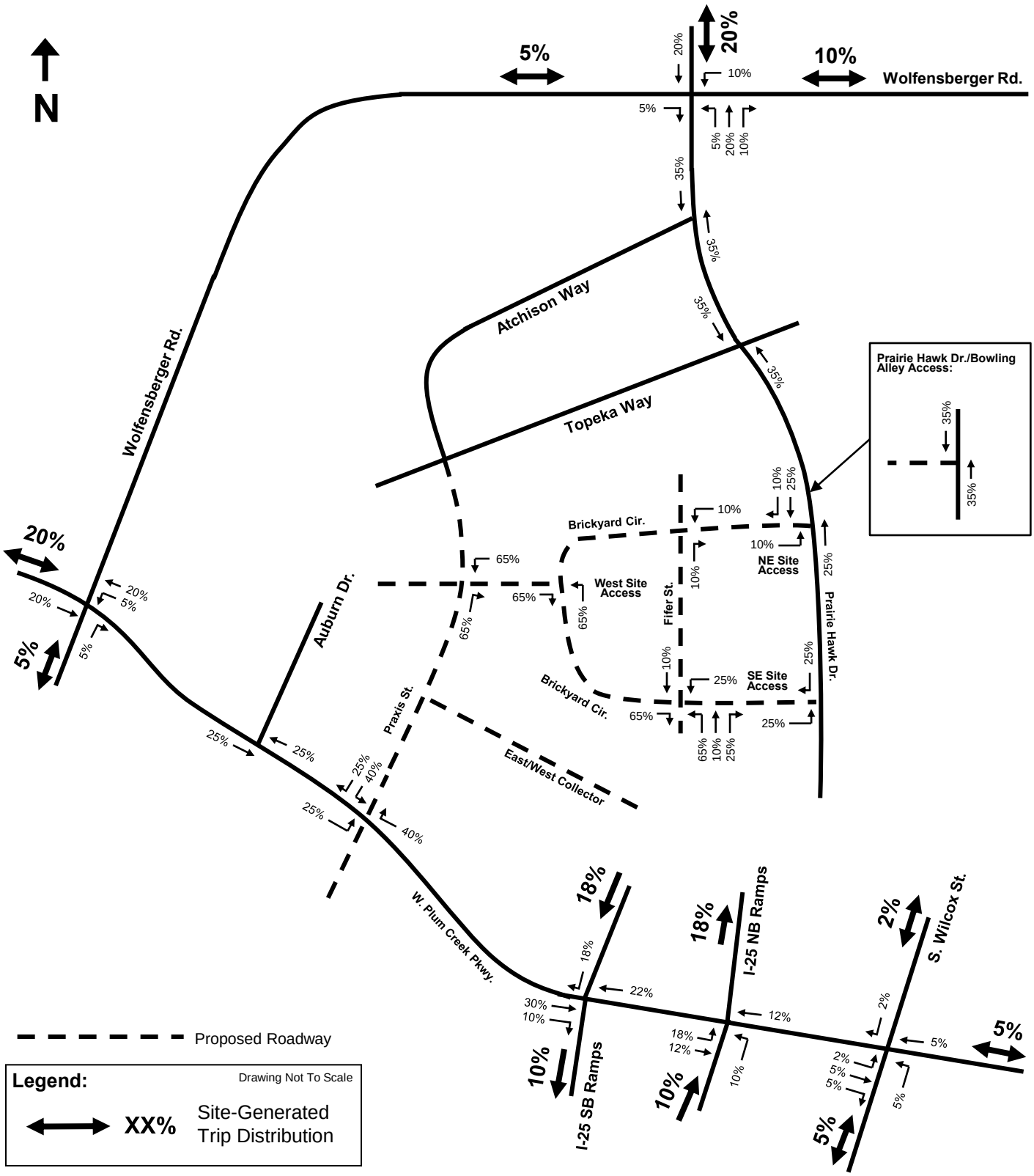


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2027 (Build-Out) Analysis Horizon
Site Generated Trip Distribution:
Hotel Land Use

Figure 14

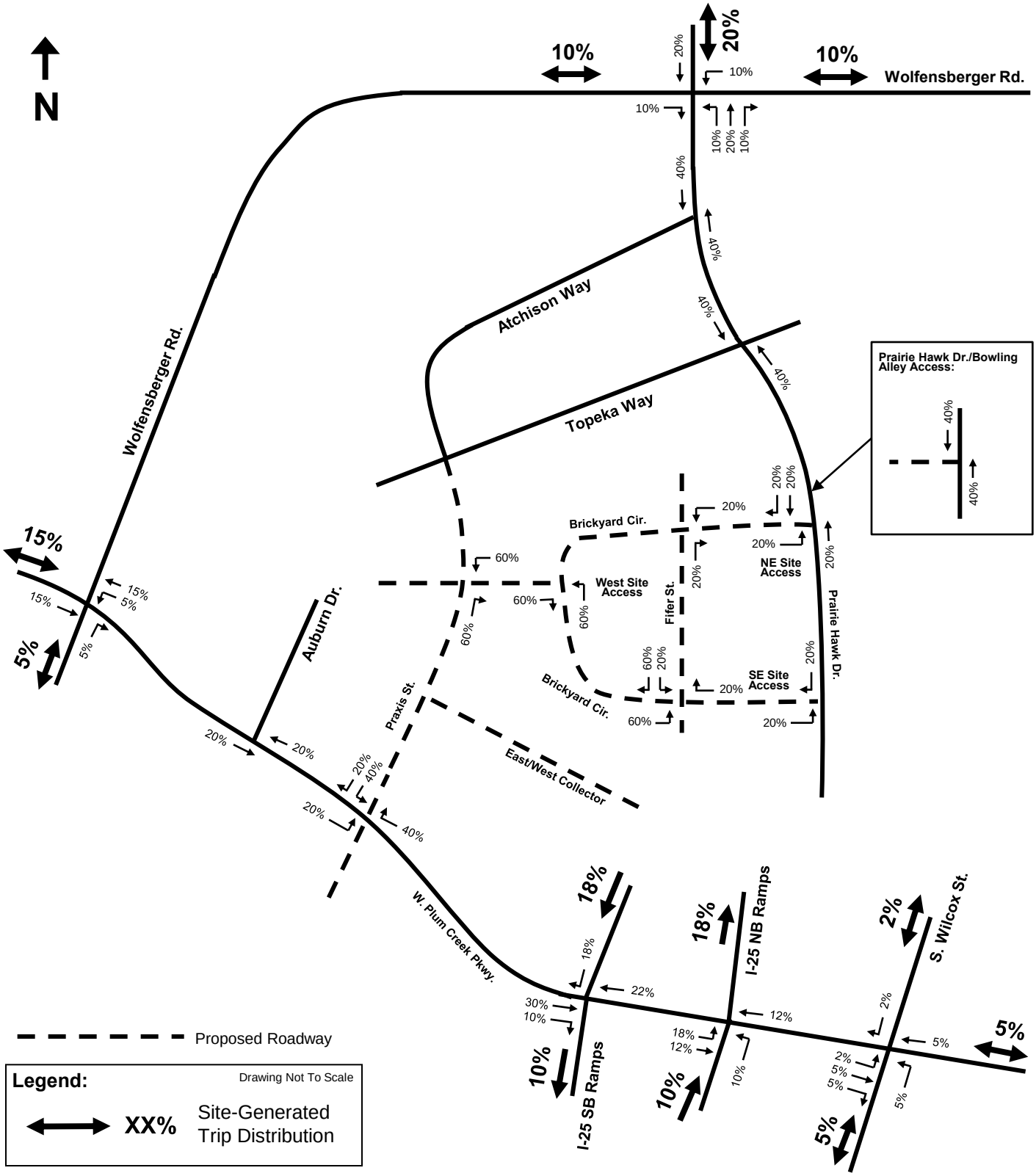


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2027 (Build-Out) Analysis Horizon
Site Generated Trip Distribution:
Rec Center Land Use

Figure 15

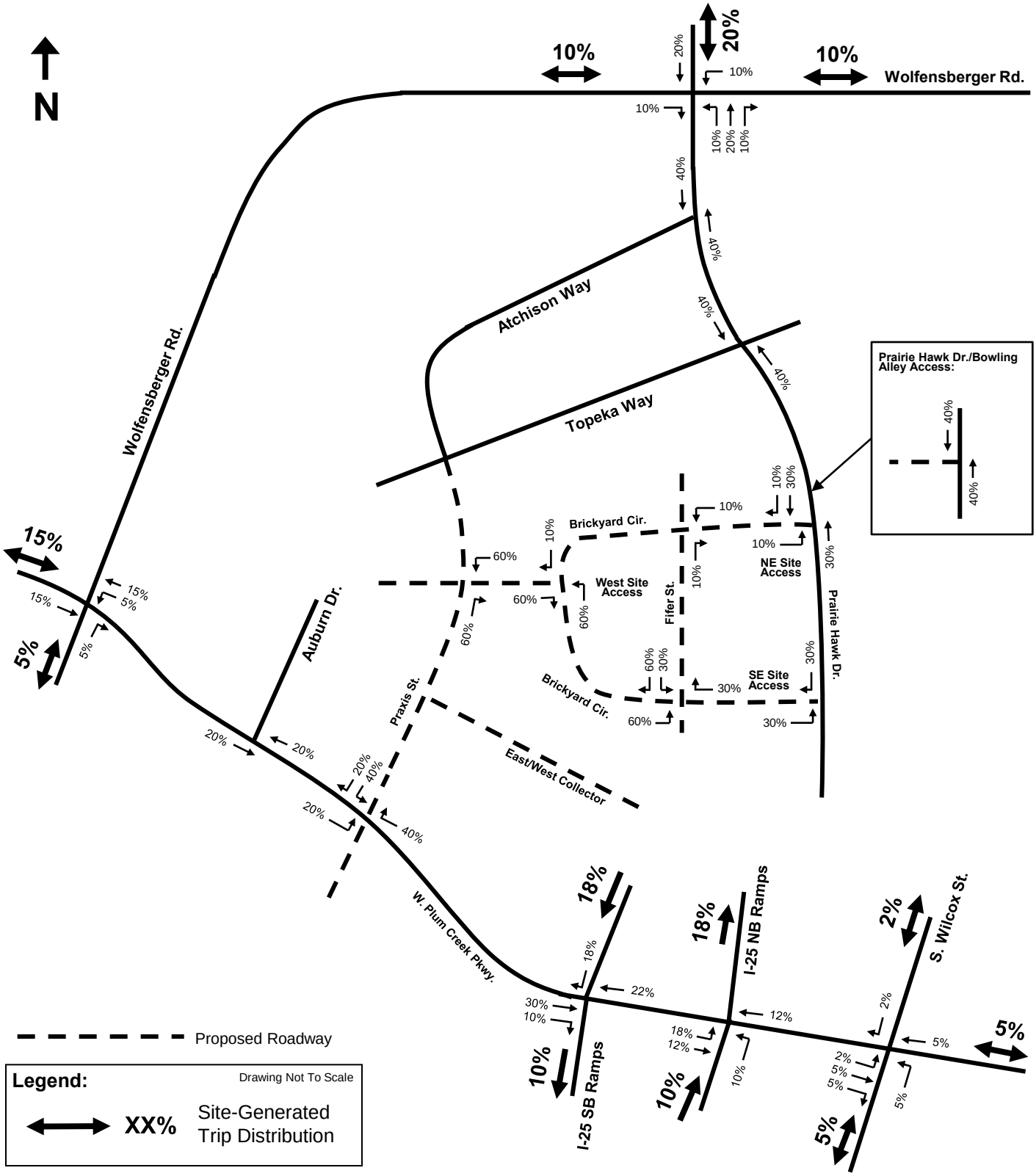


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2027 (Build-Out) Analysis Horizon
Site Generated Trip Distribution: General Office Land Use

Figure 16

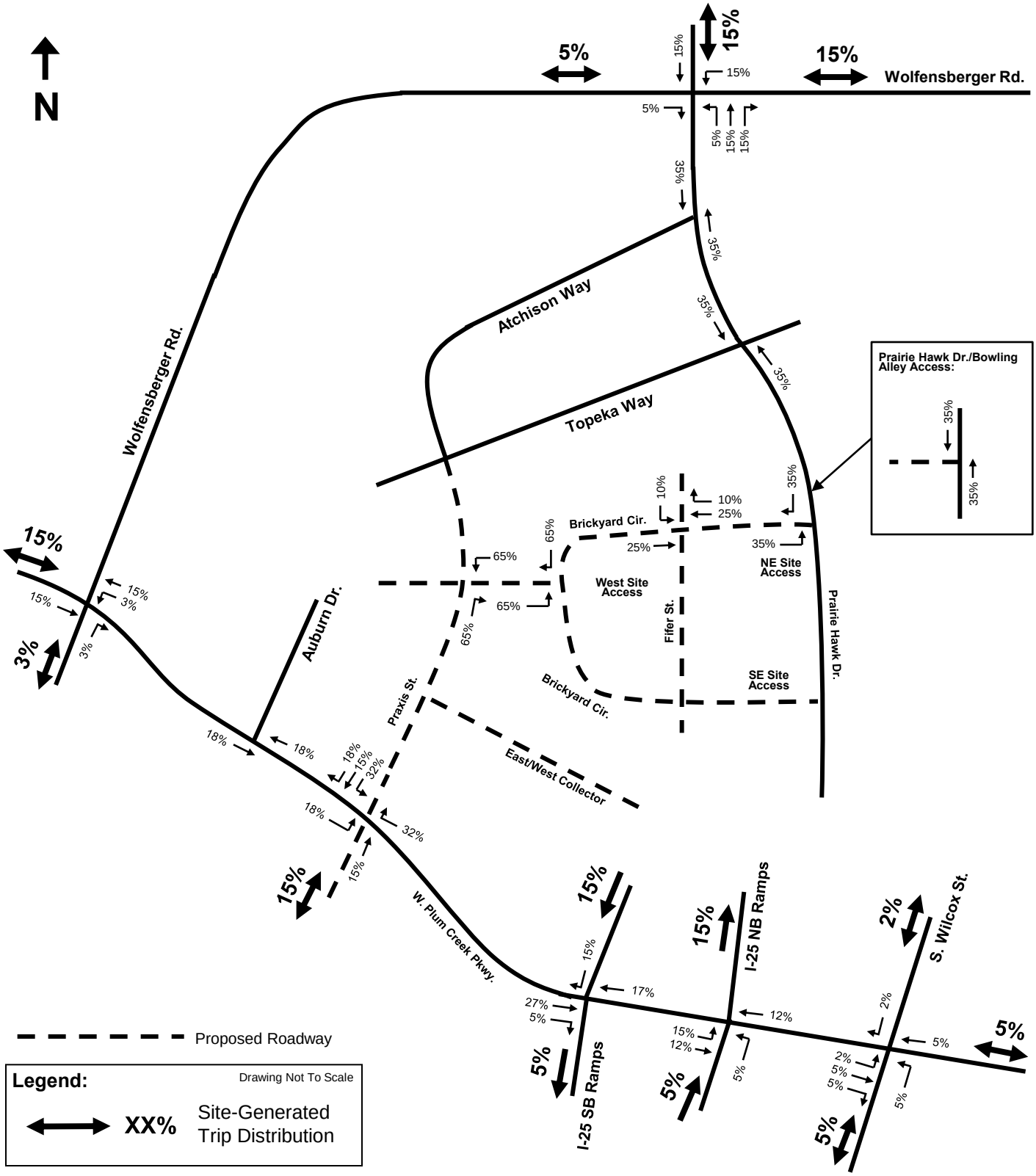


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HKS #200726

2027 (Build-Out) Analysis Horizon
Site Generated Trip Distribution:
High Turnover (Sit-Down) Restaurant Land Use

Figure 17

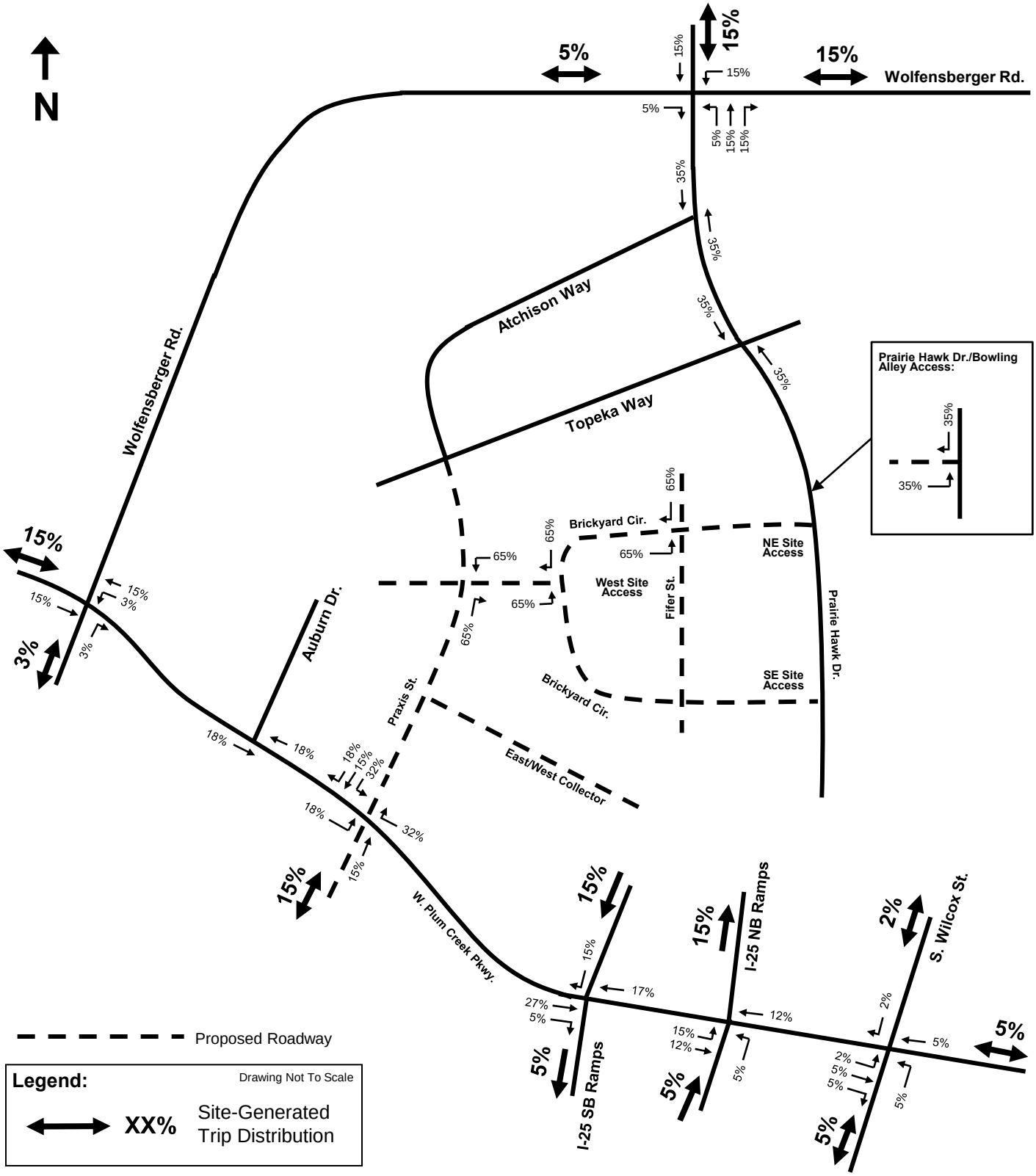


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2027 (Build-Out) Analysis Horizon
Site Generated Trip Distribution: Supermarket Land Use

Figure 18

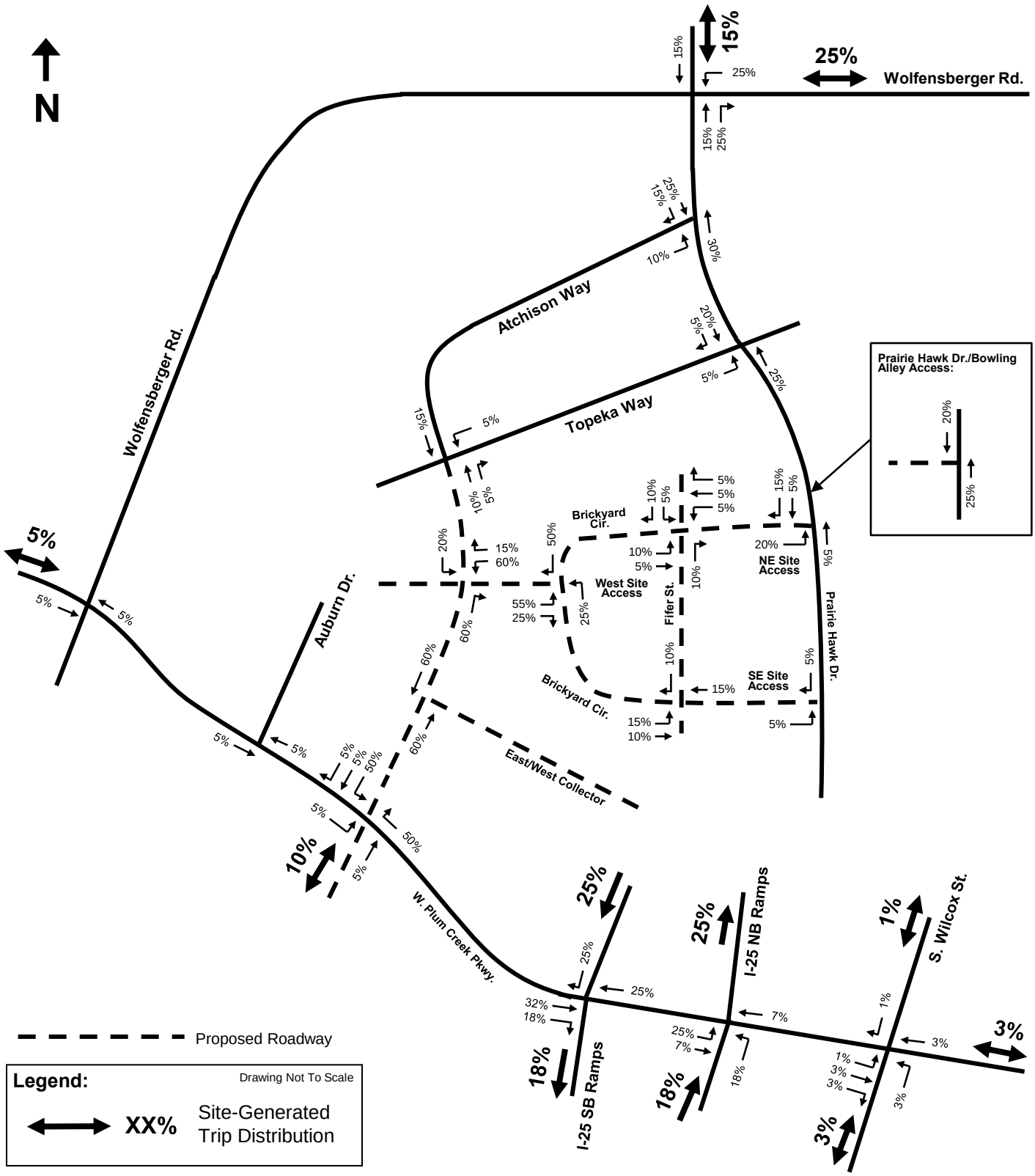


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The Brickyard
Confluence Companies
HKS #200726

2027 (Build-Out) Analysis Horizon
Site Generated Trip Distribution:
Bowling Alley Land Use

Figure 19

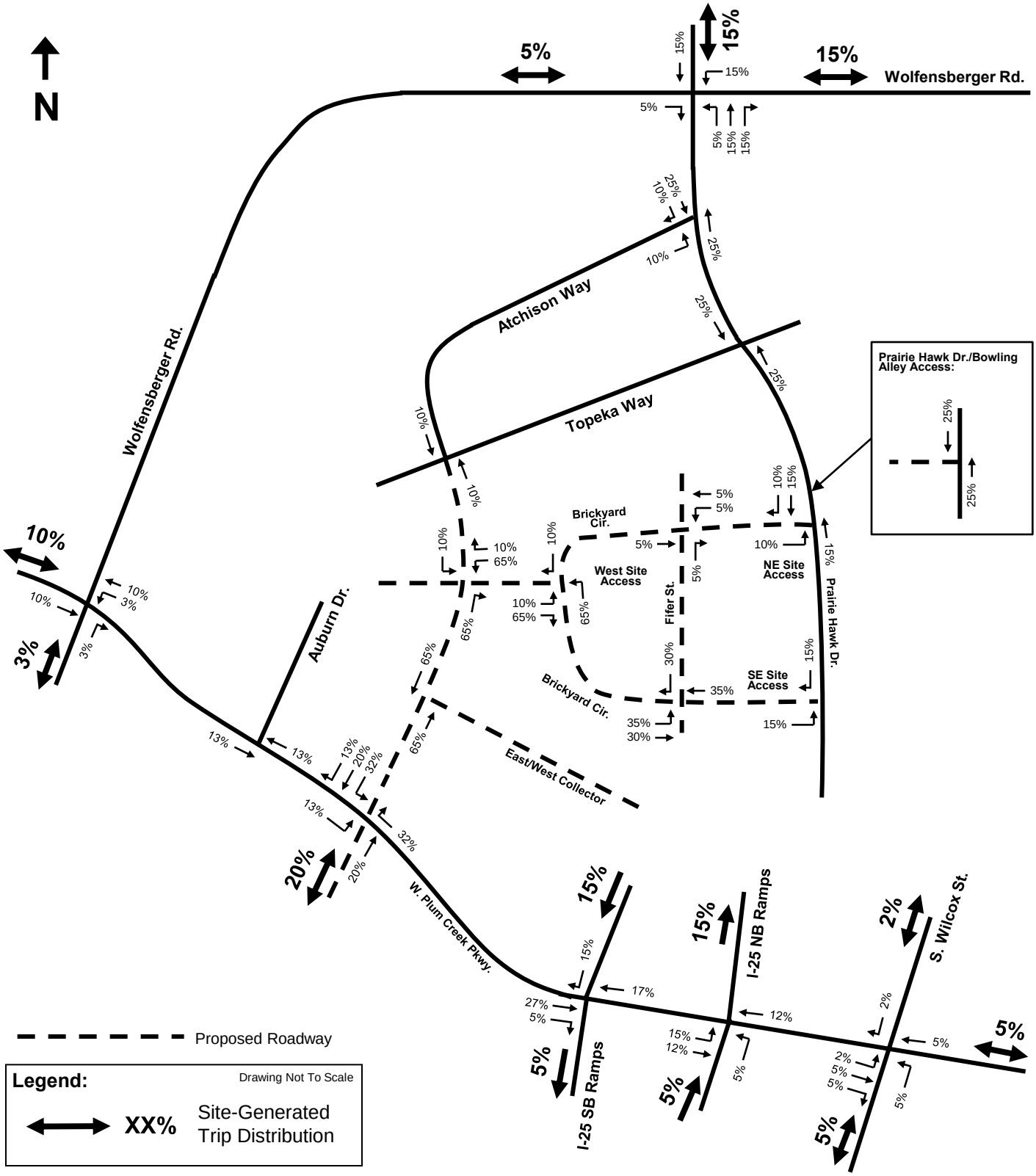


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The Brickyard
Confluence Companies
HKS #200726

2050 (Long-Term) Analysis Horizon
Site Generated Trip Distribution: Residential Land Use

Figure 20

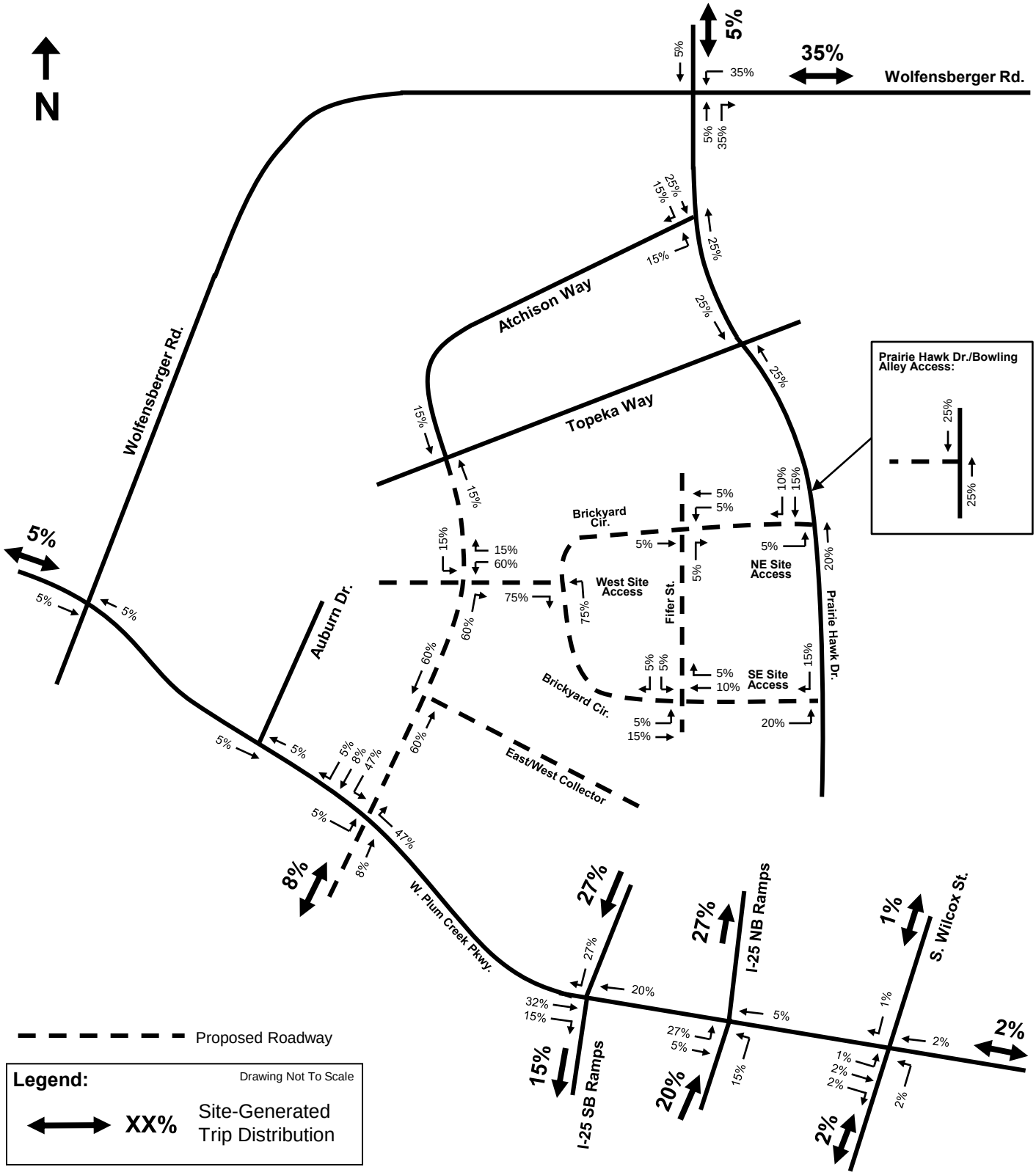


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The Brickyard
Confluence Companies
HKS #200726

2050 (Long-Term) Analysis Horizon
Site Generated Trip Distribution: Commercial/Retail Land Use

Figure 21

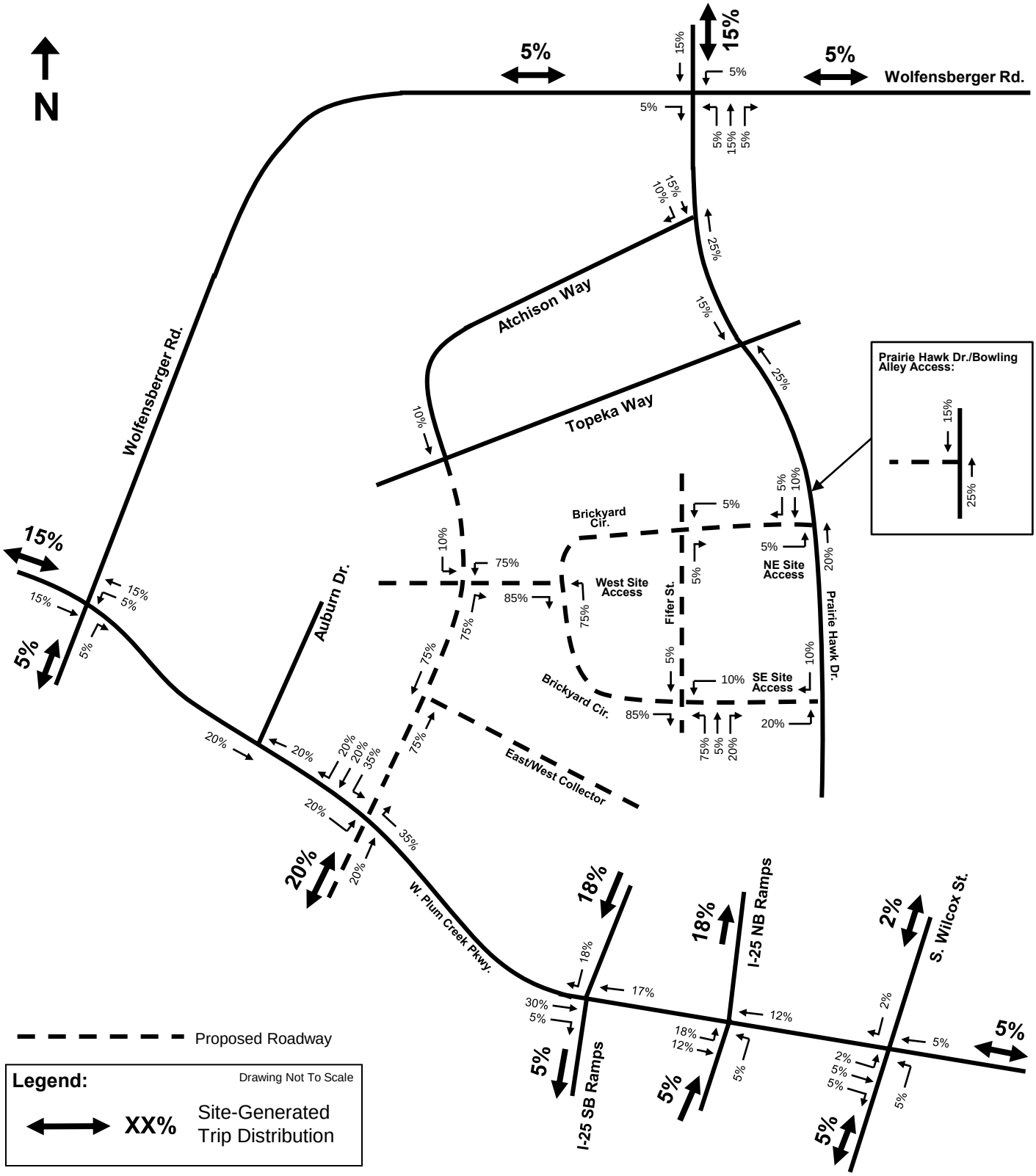


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The Brickyard
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2050 (Long-Term) Analysis Horizon
Site Generated Trip Distribution: Hotel Land Use

Figure 22

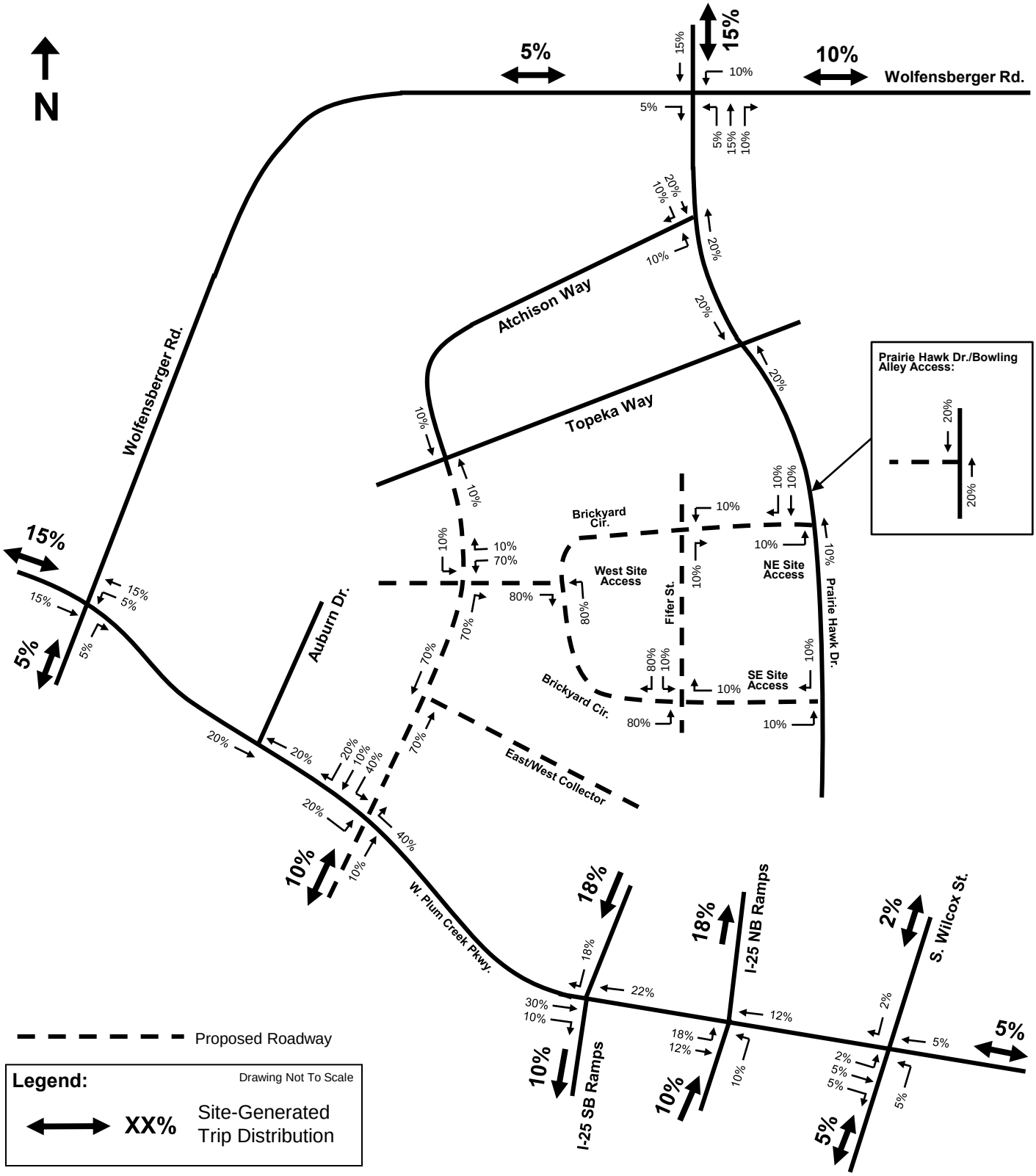


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The Brickyard
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2050 (Long-Term) Analysis Horizon
Site Generated Trip Distribution:
Rec Center Land Use

Figure 23

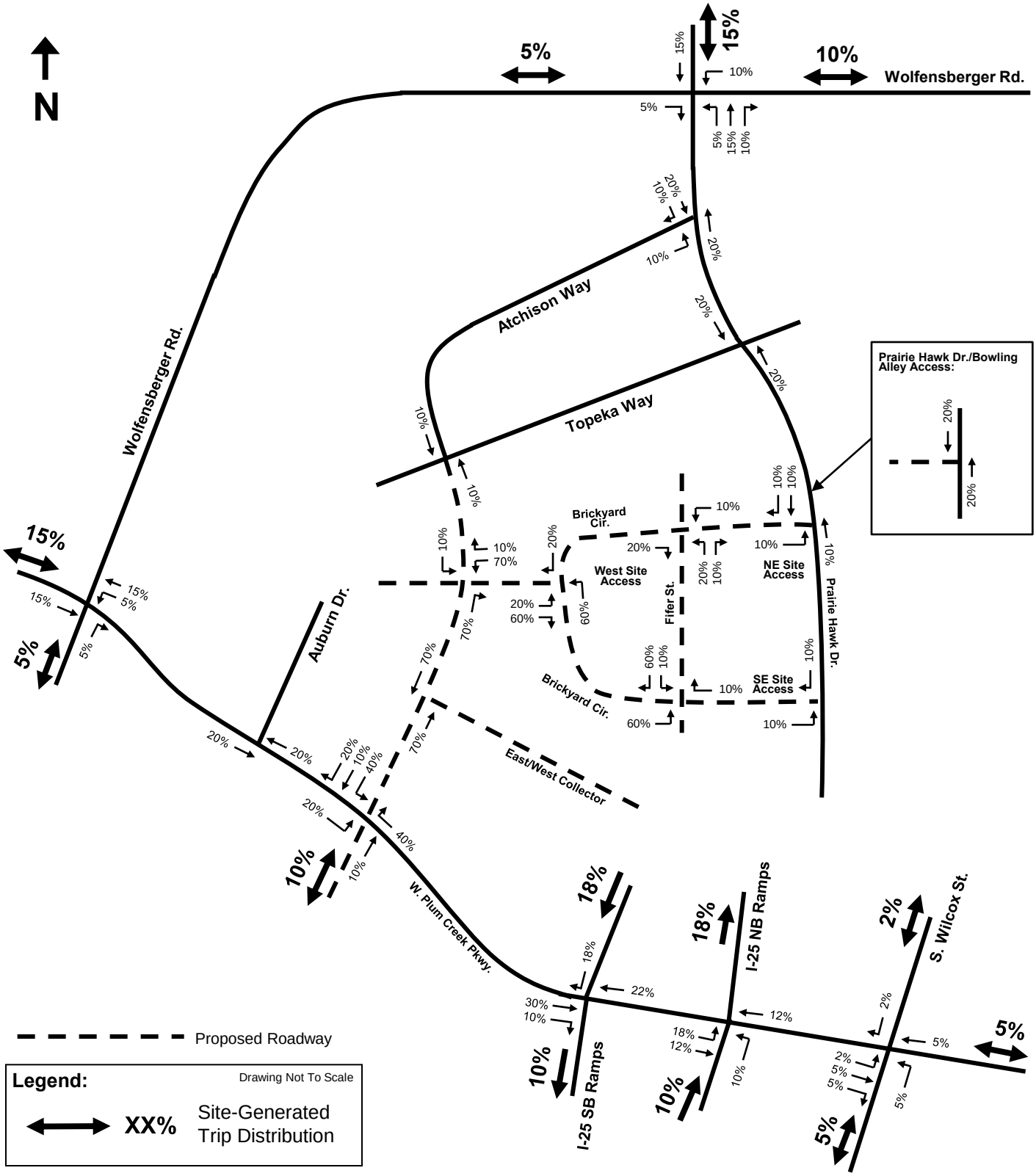


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Confluence Companies
HKS #200726

2050 (Long-Term) Analysis Horizon
Site Generated Trip Distribution: General Office Land Use

Figure 24

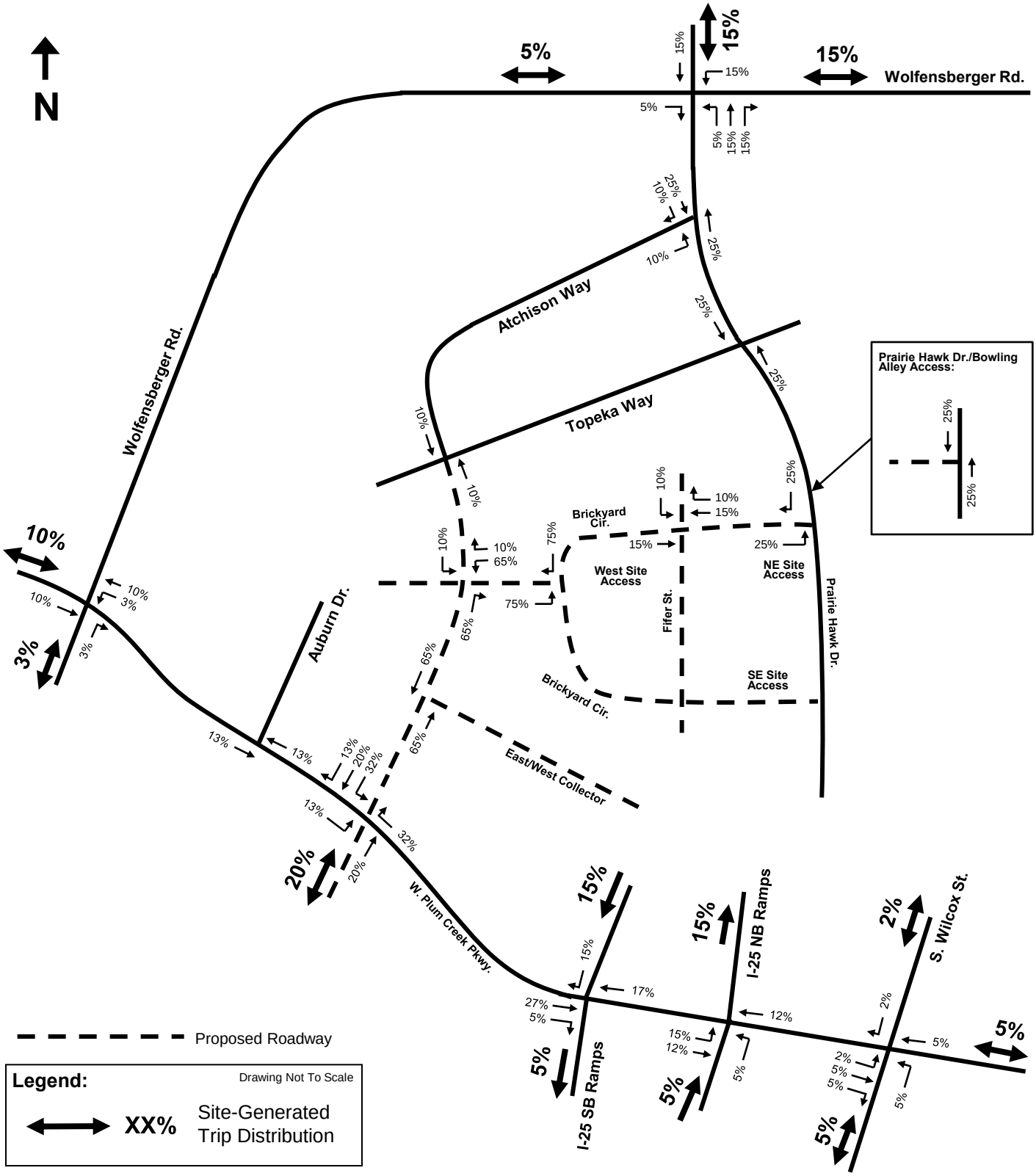


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Confluence Companies
HKS #200726

2050 (Long-Term) Analysis Horizon
Site Generated Trip Distribution:
High Turnover (Sit-Down) Restaurant Land Use

Figure 25

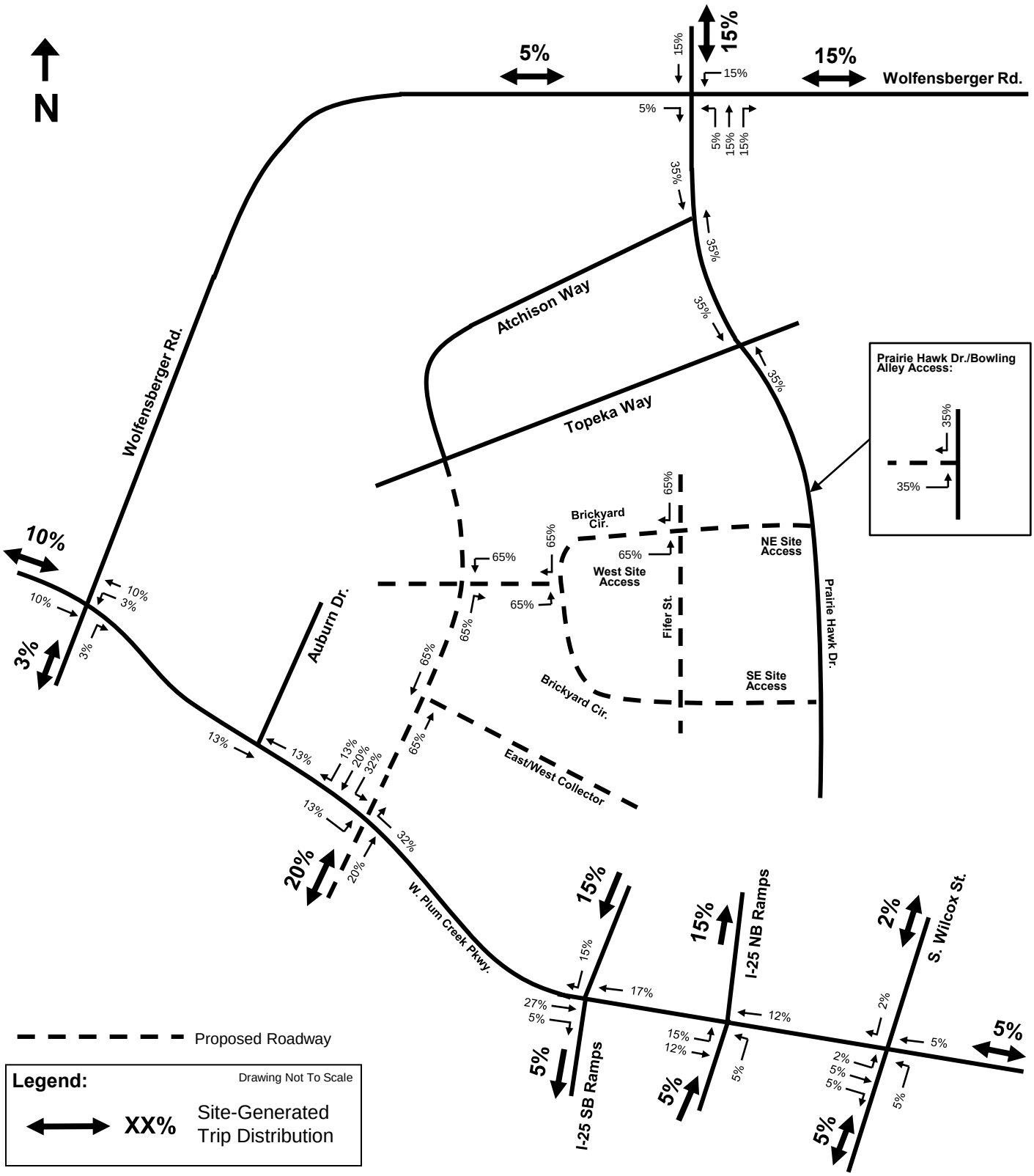


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2050 (Long-Term) Analysis Horizon
Site Generated Trip Distribution: Supermarket Land Use

Figure 26

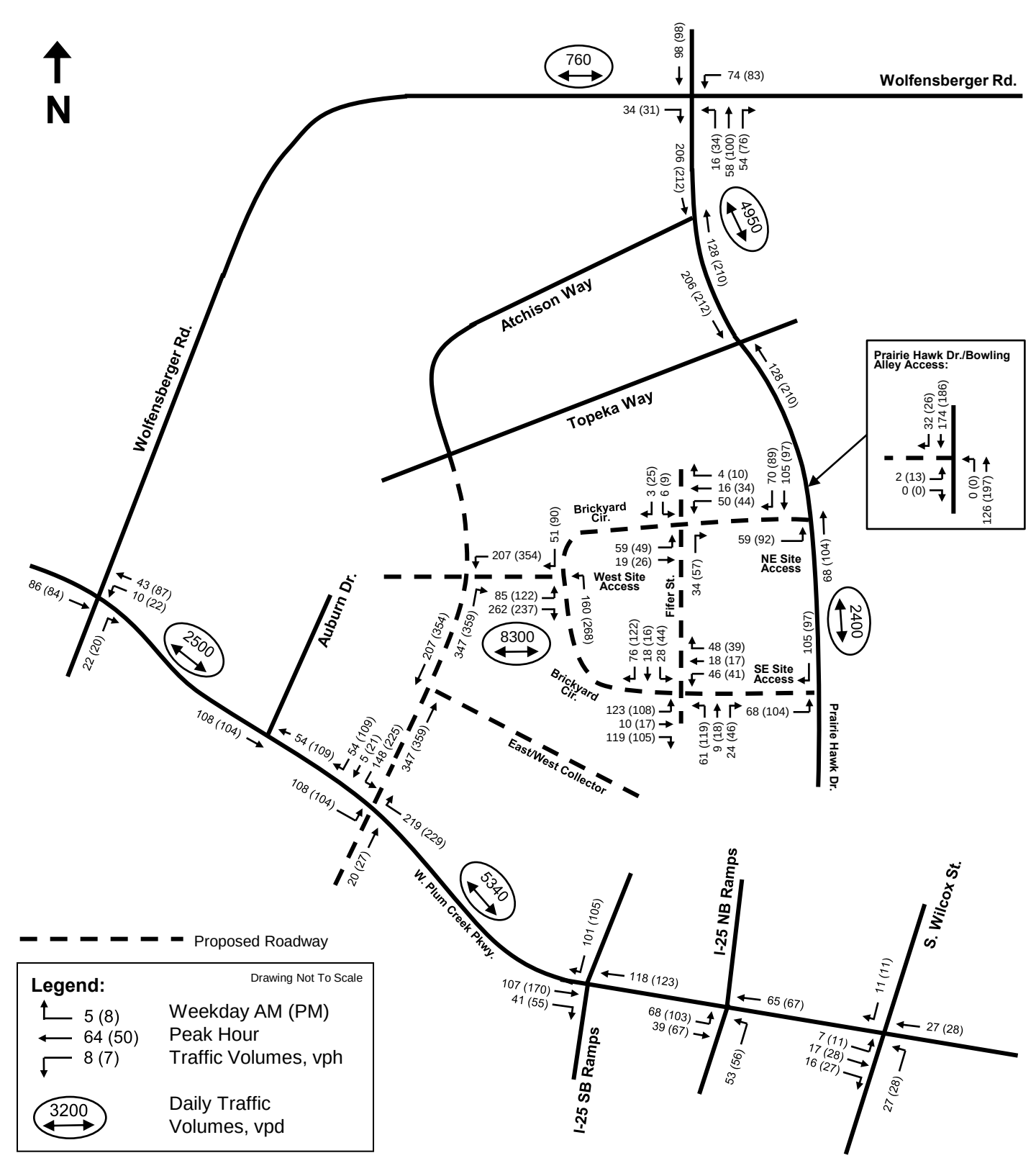


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2050 (Long-Term) Analysis Horizon
Site Generated Trip Distribution: Bowling Alley Land Use

Figure 27



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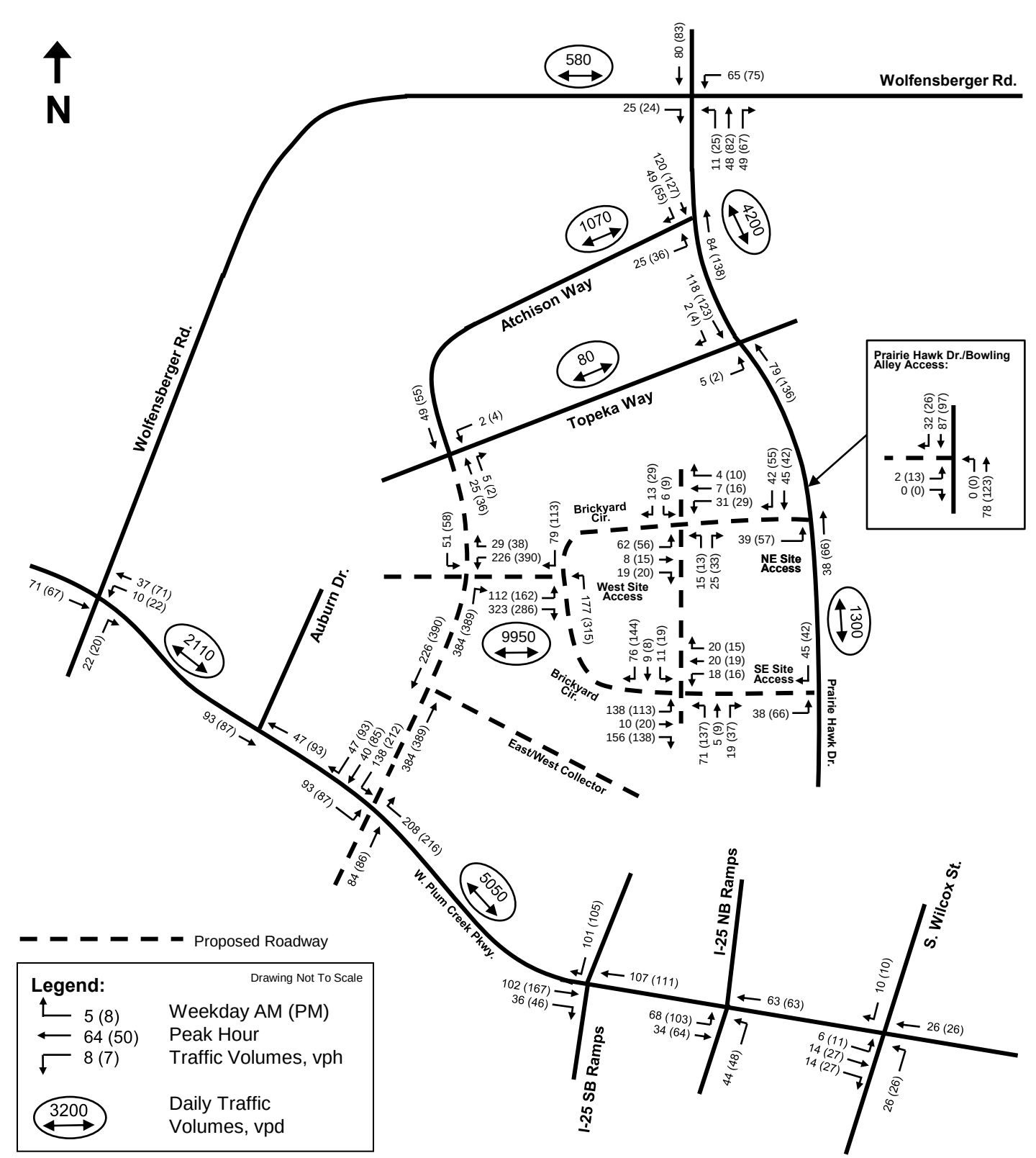
Site Generated Trip Assignment: 2027 (Build-Out) Analysis Horizon

The Brickyard

Confluence Companies

HKS #200726

Figure 28



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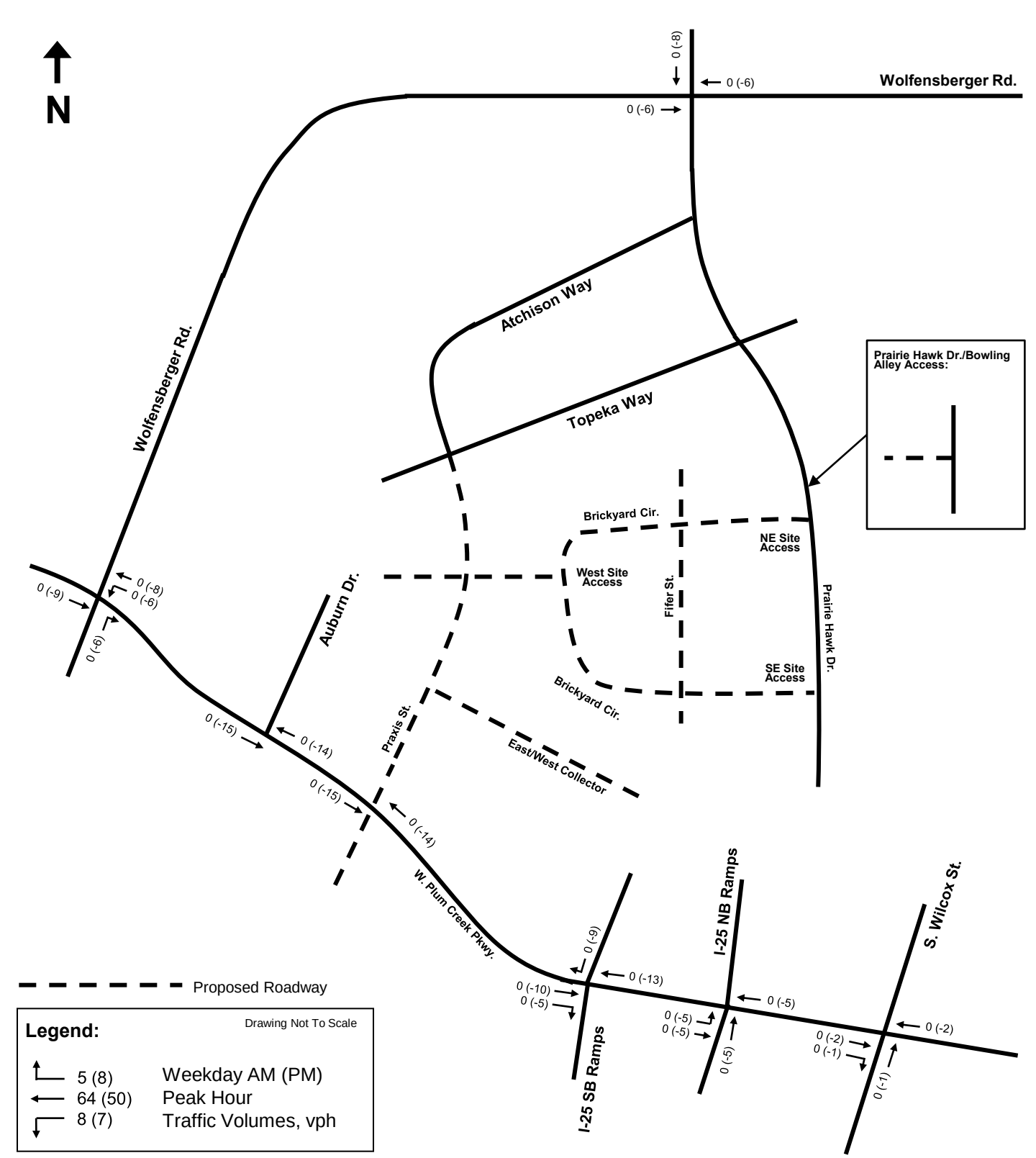
Site Generated Trip Assignment: 2050 (Long-Term) Analysis Horizon

The Brickyard

Confluence Companies

HKS #200726

Figure 29



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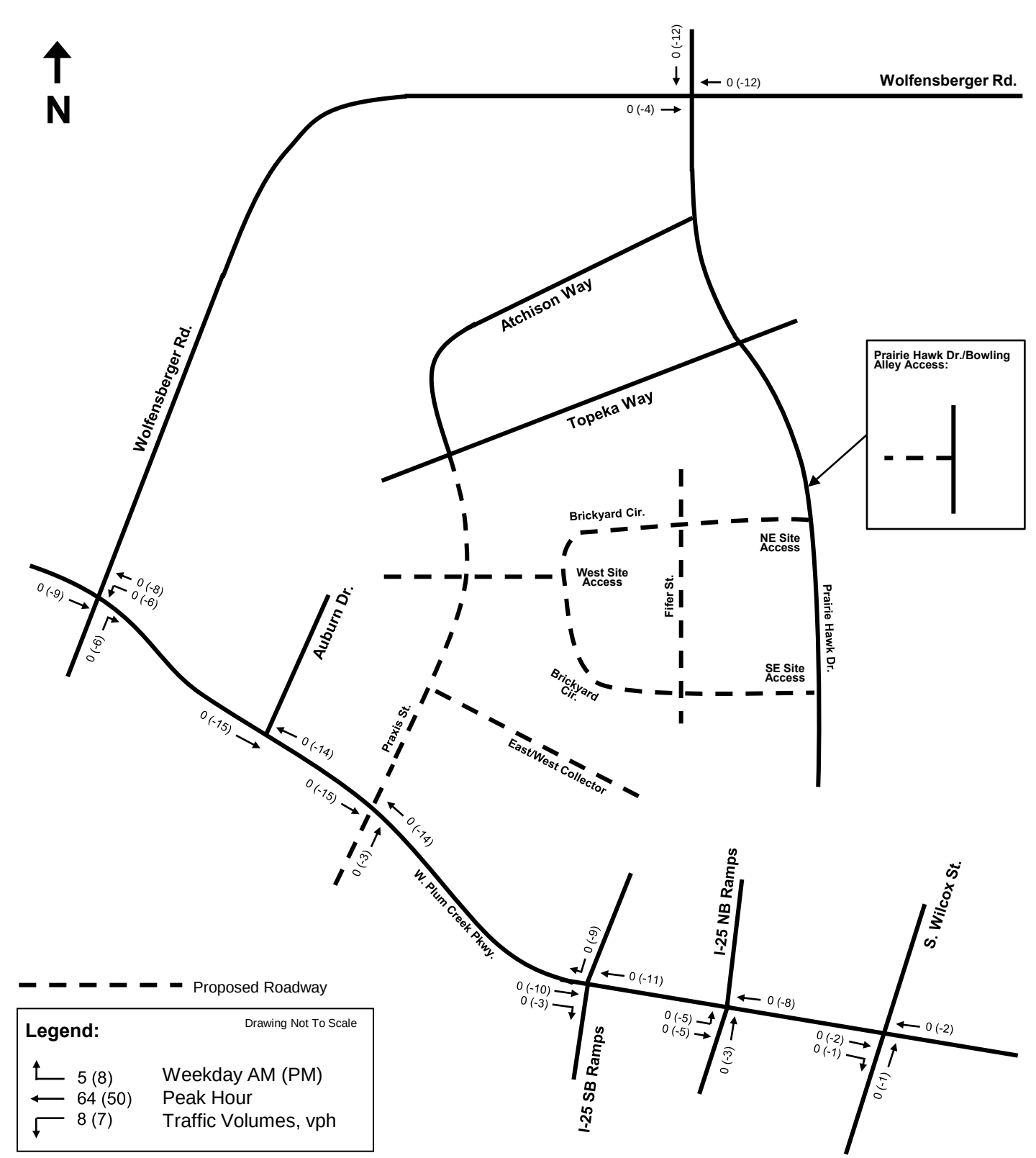
Site Generated Pass-By Trip Adjustments: 2027 (Build-Out) Analysis Horizon

The Brickyard

Confluence Companies

HKS #200726

Figure 30



HARRIS KOCHER SMITH
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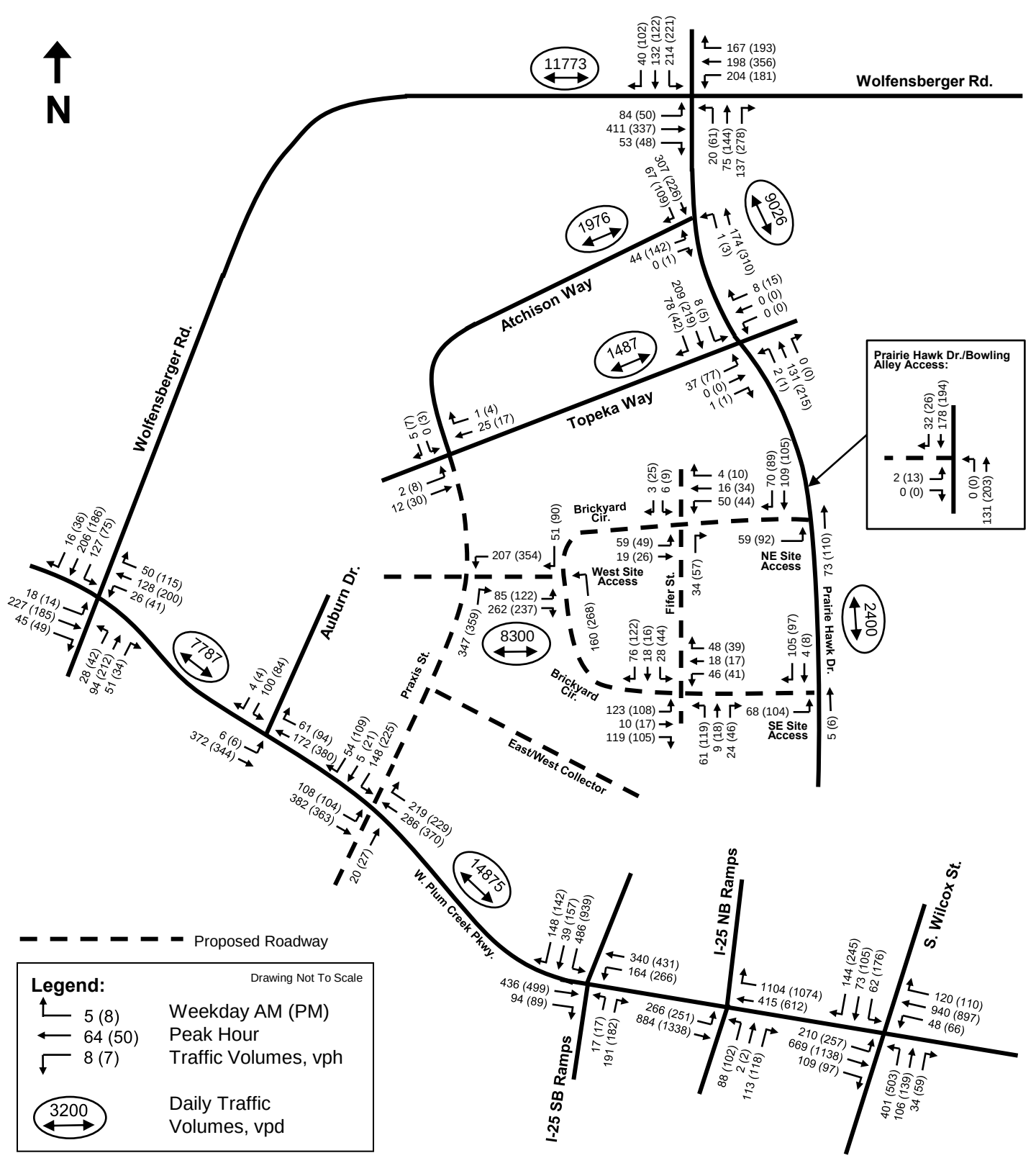
Site Generated Pass-By Trip Adjustments: 2050 (Long-Term) Analysis Horizon

The Brickyard

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Figure 31



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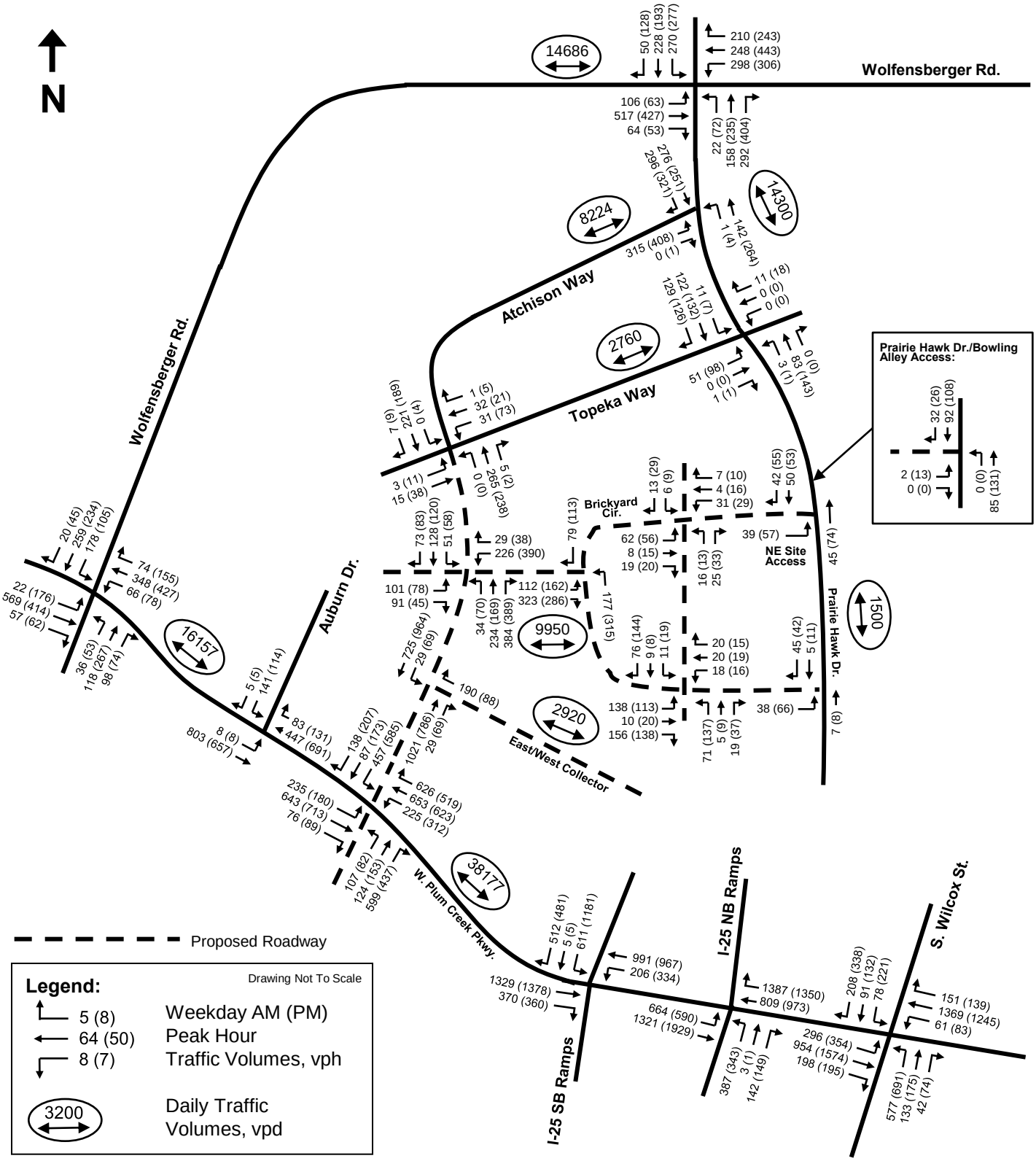
2027 (Build-Out) Analysis Horizon
Total Traffic Volumes

The Brickyard

Confluence Companies

HKS #200726

Figure 32



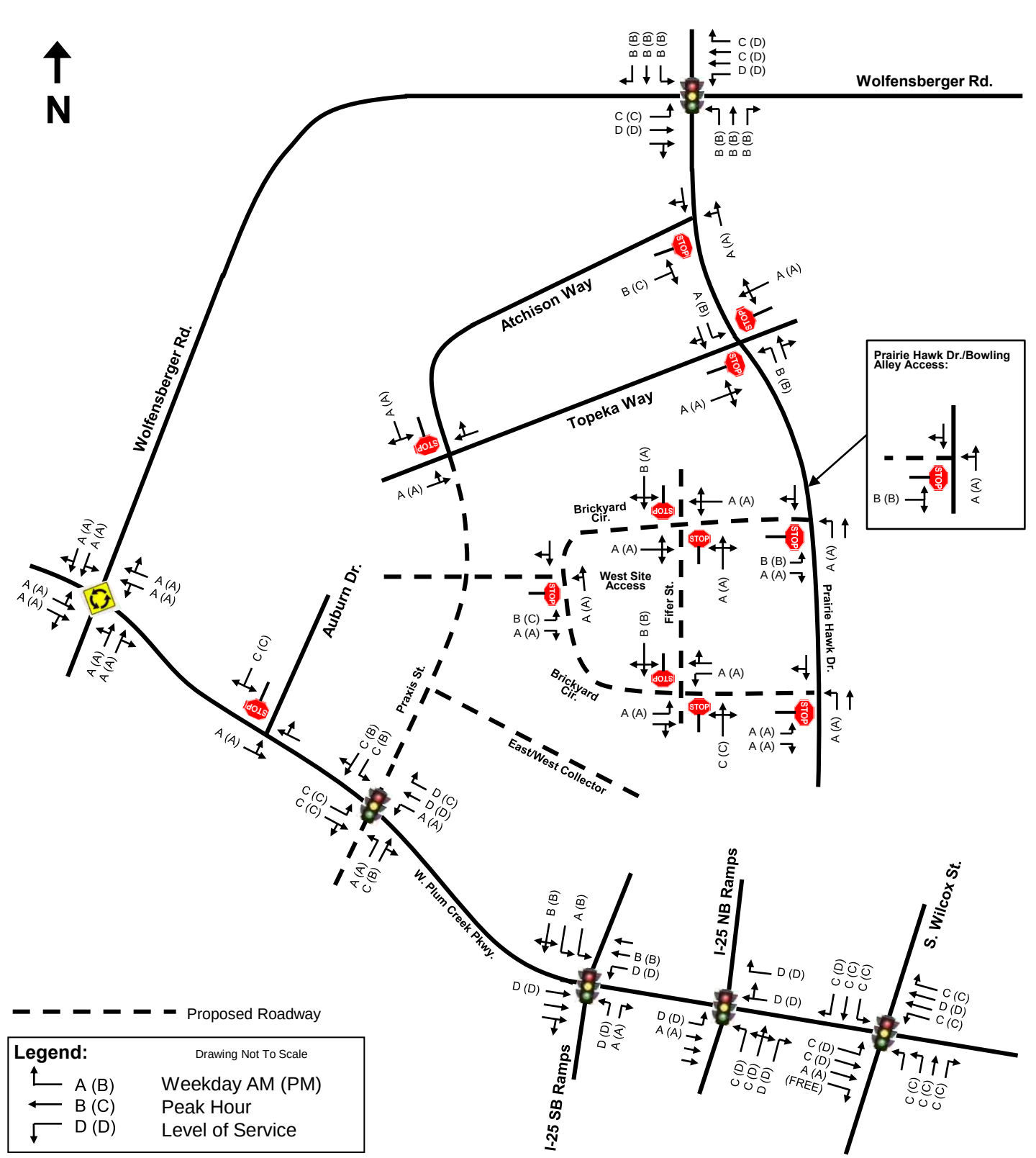
2050 (Long-Term) Analysis Horizon
Total Traffic Volumes

The Brickyard

Confluence Companies

HKS #200726

Figure 33

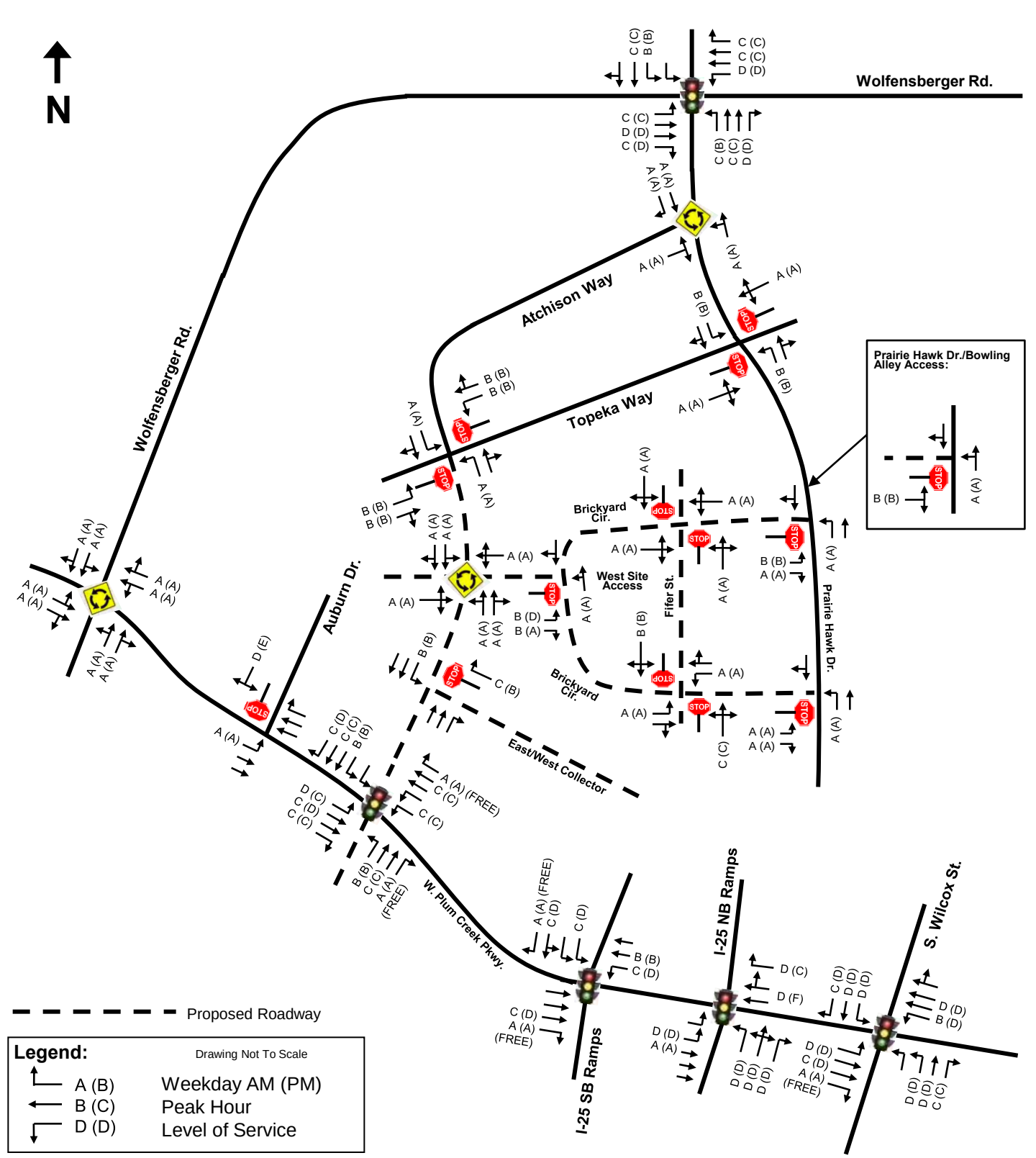


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2027 (Build-Out) Analysis Horizon
Total Traffic Operational Conditions

The Brickyard
Confluence Companies
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Figure 34



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2050 (Long-Term) Analysis Horizon
Total Traffic Operational Conditions

The Brickyard
Confluence Companies
HKS #200726

Figure 35

APPENDIX “A”

2022 (EXISTING)
TRAFFIC VOLUME COUNTS

All Traffic Data Services, LLC
www.alltrafficdataservices.com

Site Code: 10
Station ID: 10
WOLFENSBERGER RD W.O .PRAIRIE HAWK DR

Latitude: 0' 0.0000 Undefined

Start Time	29-Jun-22 Wed	EB	WB							Total
12:00 AM		13	25							38
01:00		8	16							24
02:00		8	3							11
03:00		6	8							14
04:00		34	6							40
05:00		105	27							132
06:00		250	129							379
07:00		446	213							659
08:00		**550**	259							**809**
09:00		423	296							719
10:00		424	**303**							727
11:00		394	303							697
12:00 PM		**430**	299							729
01:00		349	259							608
02:00		336	318							654
03:00		351	351							702
04:00		391	462							853
05:00		361	**497**							**858**
06:00		331	365							696
07:00		195	282							477
08:00		138	249							387
09:00		86	161							247
10:00		50	105							155
11:00		22	74							96
Total		5701	5010							10711
Percent		53.2%	46.8%							
AM Peak	-	08:00	10:00	-	-	-	-	-	-	08:00
Vol.	-	550	303	-	-	-	-	-	-	809
PM Peak	-	12:00	17:00	-	-	-	-	-	-	17:00
Vol.	-	430	497	-	-	-	-	-	-	858

All Traffic Data Services, LLC
www.alltrafficdataservices.com

Site Code: 10
Station ID: 10
WOLFENSBERGER RD W.O .PRAIRIE HAWK DR

Latitude: 0' 0.0000 Undefined

Start Time	30-Jun-22 Thu	EB	WB							Total
12:00 AM		21	29							50
01:00		14	16							30
02:00		4	9							13
03:00		8	2							10
04:00		31	6							37
05:00		97	29							126
06:00		228	106							334
07:00		409	170							579
08:00		**485**	230							**715**
09:00		413	262							675
10:00		371	287							658
11:00		371	**336**							707
12:00 PM		365	370							735
01:00		355	324							679
02:00		352	341							693
03:00		**381**	383							764
04:00		363	**443**							**806**
05:00		334	431							765
06:00		286	380							666
07:00		184	275							459
08:00		127	251							378
09:00		82	170							252
10:00		77	105							182
11:00		27	60							87
Total		5385	5015							10400
Percent		51.8%	48.2%							
AM Peak	-	08:00	11:00	-	-	-	-	-	-	08:00
Vol.	-	485	336	-	-	-	-	-	-	715
PM Peak	-	15:00	16:00	-	-	-	-	-	-	16:00
Vol.	-	381	443	-	-	-	-	-	-	806
Grand Total		11086	10025							21111
Percent		52.5%	47.5%							
ADT		ADT 10,497		AADT 10,497						

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Site Code: 11
Station ID: 11
PRAIRIE HAWK DR S.O. WOLFENSBERGER RD

Latitude: 0' 0.0000 Undefined

Start Time	29-Jun-22 Wed	NB	SB							Total
12:00 AM		7	7							14
01:00		1	5							6
02:00		4	0							4
03:00		7	7							14
04:00		12	21							33
05:00		22	43							65
06:00		31	122							153
07:00		50	154							204
08:00		107	**205**							312
09:00		137	137							274
10:00		106	121							227
11:00		**183**	171							**354**
12:00 PM		203	168							371
01:00		141	**169**							310
02:00		159	144							303
03:00		201	103							304
04:00		**224**	148							**372**
05:00		188	108							296
06:00		137	83							220
07:00		35	30							65
08:00		42	18							60
09:00		21	11							32
10:00		12	8							20
11:00		12	11							23
Total		2042	1994							4036
Percent		50.6%	49.4%							
AM Peak	-	11:00	08:00	-	-	-	-	-	-	11:00
Vol.	-	183	205	-	-	-	-	-	-	354
PM Peak	-	16:00	13:00	-	-	-	-	-	-	16:00
Vol.	-	224	169	-	-	-	-	-	-	372

Site Code: 11
Station ID: 11
PRAIRIE HAWK DR S.O. WOLFENSBERGER RD

Latitude: 0' 0.0000 Undefined

Start Time	30-Jun-22 Thu	NB	SB							Total
12:00 AM		9	11							20
01:00		5	9							14
02:00		14	5							19
03:00		1	2							3
04:00		12	21							33
05:00		10	37							47
06:00		30	105							135
07:00		40	142							182
08:00		90	157							247
09:00		**134**	**174**							**308**
10:00		119	114							233
11:00		124	101							225
12:00 PM		174	**164**							**338**
01:00		105	137							242
02:00		169	150							319
03:00		194	130							324
04:00		**199**	120							319
05:00		163	69							232
06:00		82	105							187
07:00		75	28							103
08:00		33	44							77
09:00		74	5							79
10:00		4	3							7
11:00		7	5							12
Total		1867	1838							3705
Percent		50.4%	49.6%							
AM Peak	-	09:00	09:00	-	-	-	-	-	-	09:00
Vol.	-	134	174	-	-	-	-	-	-	308
PM Peak	-	16:00	12:00	-	-	-	-	-	-	12:00
Vol.	-	199	164	-	-	-	-	-	-	338
Grand Total		3909	3832							7741
Percent		50.5%	49.5%							
ADT		ADT 1,812		AADT 1,812						

All Traffic Data Services, LLC
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Site Code: 12
Station ID: 12
ATCHISON WAY S.O. PRAIRIE HAWK DR

Latitude: 0' 0.0000 Undefined

Start Time	29-Jun-22 Wed	EB	WB							Total
12:00 AM		1	2							3
01:00		0	0							0
02:00		0	0							0
03:00		2	2							4
04:00		6	4							10
05:00		7	8							15
06:00		10	78							88
07:00		25	92							117
08:00		47	**93**							140
09:00		60	49							109
10:00		39	48							87
11:00		**69**	84							**153**
12:00 PM		106	87							193
01:00		59	80							139
02:00		70	73							143
03:00		**125**	64							189
04:00		125	**92**							**217**
05:00		112	82							194
06:00		92	52							144
07:00		30	18							48
08:00		23	12							35
09:00		13	5							18
10:00		3	1							4
11:00		4	2							6
Total		1028	1028							2056
Percent		50.0%	50.0%							
AM Peak	-	11:00	08:00	-	-	-	-	-	-	11:00
Vol.	-	69	93	-	-	-	-	-	-	153
PM Peak	-	15:00	16:00	-	-	-	-	-	-	16:00
Vol.	-	125	92	-	-	-	-	-	-	217

Site Code: 12
Station ID: 12
ATCHISON WAY S.O. PRAIRIE HAWK DR

Latitude: 0' 0.0000 Undefined

Start Time	30-Jun-22 Thu	EB	WB							Total
12:00 AM		2	6							8
01:00		2	7							9
02:00		10	3							13
03:00		0	0							0
04:00		9	5							14
05:00		3	16							19
06:00		11	64							75
07:00		13	**91**							104
08:00		42	68							110
09:00		**64**	79							**143**
10:00		44	42							86
11:00		58	37							95
12:00 PM		80	**83**							163
01:00		44	54							98
02:00		75	79							154
03:00		**109**	75							**184**
04:00		98	58							156
05:00		82	33							115
06:00		39	24							63
07:00		29	17							46
08:00		23	4							27
09:00		9	0							9
10:00		1	1							2
11:00		3	3							6
Total		850	849							1699
Percent		50.0%	50.0%							
AM Peak	-	09:00	07:00	-	-	-	-	-	-	09:00
Vol.	-	64	91	-	-	-	-	-	-	143
PM Peak	-	15:00	12:00	-	-	-	-	-	-	15:00
Vol.	-	109	83	-	-	-	-	-	-	184
Grand Total		1878	1877							3755
Percent		50.0%	50.0%							
ADT		ADT 1,886		AADT 1,886						

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Site Code: 13
Station ID: 13
TOPEKA WAY W.O. PRAIRIE HAWK DR

Latitude: 0' 0.0000 Undefined

Start Time	29-Jun-22 Wed	EB	WB							Total
12:00 AM		2	7							9
01:00		5	2							7
02:00		8	5							13
03:00		4	7							11
04:00		10	20							30
05:00		14	43							57
06:00		16	48							64
07:00		47	**91**							138
08:00		47	61							108
09:00		56	53							109
10:00		**73**	63							136
11:00		72	69							**141**
12:00 PM		57	**70**							127
01:00		55	39							94
02:00		51	35							86
03:00		73	42							115
04:00		**101**	36							**137**
05:00		43	26							69
06:00		5	6							11
07:00		2	0							2
08:00		3	5							8
09:00		5	5							10
10:00		10	6							16
11:00		2	7							9
Total		761	746							1507
Percent		50.5%	49.5%							
AM Peak	-	10:00	07:00	-	-	-	-	-	-	11:00
Vol.	-	73	91	-	-	-	-	-	-	141
PM Peak	-	16:00	12:00	-	-	-	-	-	-	16:00
Vol.	-	101	70	-	-	-	-	-	-	137

Site Code: 13
Station ID: 13
TOPEKA WAY W.O. PRAIRIE HAWK DR

Latitude: 0' 0.0000 Undefined

Start Time	30-Jun-22 Thu	EB	WB							Total
12:00 AM		3	0							3
01:00		5	2							7
02:00		2	0							2
03:00		2	5							7
04:00		5	11							16
05:00		15	40							55
06:00		18	35							53
07:00		21	**68**							89
08:00		34	48							82
09:00		44	55							99
10:00		59	51							110
11:00		**64**	59							**123**
12:00 PM		58	**67**							**125**
01:00		65	59							124
02:00		72	49							121
03:00		**74**	42							116
04:00		60	24							84
05:00		28	17							45
06:00		16	14							30
07:00		8	10							18
08:00		5	3							8
09:00		1	1							2
10:00		0	1							1
11:00		0	4							4
Total		659	665							1324
Percent		49.8%	50.2%							
AM Peak	-	11:00	07:00	-	-	-	-	-	-	11:00
Vol.	-	64	68	-	-	-	-	-	-	123
PM Peak	-	15:00	12:00	-	-	-	-	-	-	12:00
Vol.	-	74	67	-	-	-	-	-	-	125
Grand Total		1420	1411							2831
Percent		50.2%	49.8%							
ADT		ADT 1,404		AADT 1,404						

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Site Code: 14
Station ID: 14
PLUM CREEK PKWY W.O. I25

Latitude: 0' 0.0000 Undefined

Start Time	29-Jun-22 Wed	EB	WB							Total
12:00 AM		19	21							40
01:00		9	17							26
02:00		5	9							14
03:00		2	12							14
04:00		7	28							35
05:00		40	66							106
06:00		108	217							325
07:00		204	319							523
08:00		**303**	**462**							**765**
09:00		245	361							606
10:00		212	323							535
11:00		231	356							587
12:00 PM		193	386							579
01:00		169	348							517
02:00		206	340							546
03:00		261	**416**							677
04:00		343	377							**720**
05:00		**352**	328							680
06:00		270	340							610
07:00		221	225							446
08:00		171	179							350
09:00		99	106							205
10:00		65	77							142
11:00		38	70							108
Total		3773	5383							9156
Percent		41.2%	58.8%							
AM Peak	-	08:00	08:00	-	-	-	-	-	-	08:00
Vol.	-	303	462	-	-	-	-	-	-	765
PM Peak	-	17:00	15:00	-	-	-	-	-	-	16:00
Vol.	-	352	416	-	-	-	-	-	-	720

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Site Code: 14
Station ID: 14
PLUM CREEK PKWY W.O. I25

Latitude: 0' 0.0000 Undefined

Start Time	30-Jun-22 Thu	EB	WB							Total
12:00 AM		14	23							37
01:00		4	10							14
02:00		3	12							15
03:00		3	11							14
04:00		4	19							23
05:00		30	43							73
06:00		94	155							249
07:00		197	171							368
08:00		**368**	246							**614**
09:00		222	265							487
10:00		243	262							505
11:00		231	**270**							501
12:00 PM		244	343							587
01:00		228	389							617
02:00		251	299							550
03:00		275	341							616
04:00		**286**	406							692
05:00		253	**476**							**729**
06:00		275	396							671
07:00		211	283							494
08:00		175	223							398
09:00		121	190							311
10:00		63	208							271
11:00		39	57							96
Total		3834	5098							8932
Percent		42.9%	57.1%							
AM Peak	-	08:00	11:00	-	-	-	-	-	-	08:00
Vol.	-	368	270	-	-	-	-	-	-	614
PM Peak	-	16:00	17:00	-	-	-	-	-	-	17:00
Vol.	-	286	476	-	-	-	-	-	-	729
Grand Total		7607	10481							18088
Percent		42.1%	57.9%							
ADT		ADT 9,072		AADT 9,072						

All Traffic Data Services, LLC
www.alltrafficdataservices.com

Site Code: 15
Station ID: 15
PLUM CREEK PKWY S.O. WOLFENSBERGER RD

Latitude: 0' 0.0000 Undefined

Start Time	29-Jun-22 Wed	NB	SB							Total
12:00 AM		6	7							13
01:00		1	3							4
02:00		3	6							9
03:00		2	13							15
04:00		9	40							49
05:00		35	120							155
06:00		78	277							355
07:00		123	**365**							**488**
08:00		144	256							400
09:00		146	168							314
10:00		158	165							323
11:00		**166**	170							336
12:00 PM		172	164							336
01:00		163	134							297
02:00		185	183							368
03:00		227	233							460
04:00		**264**	**260**							**524**
05:00		228	199							427
06:00		148	95							243
07:00		100	71							171
08:00		79	38							117
09:00		41	14							55
10:00		17	19							36
11:00		4	4							8
Total		2499	3004							5503
Percent		45.4%	54.6%							
AM Peak	-	11:00	07:00	-	-	-	-	-	-	07:00
Vol.	-	166	365	-	-	-	-	-	-	488
PM Peak	-	16:00	16:00	-	-	-	-	-	-	16:00
Vol.	-	264	260	-	-	-	-	-	-	524

Site Code: 15
Station ID: 15
PLUM CREEK PKWY S.O. WOLFENSBERGER RD

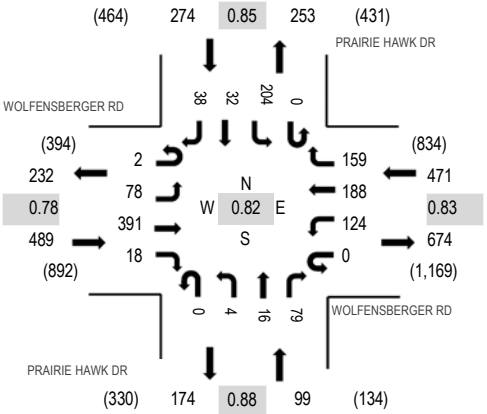
Latitude: 0' 0.0000 Undefined

Start Time	30-Jun-22 Thu	NB	SB							Total
12:00 AM		2	5							7
01:00		2	6							8
02:00		1	3							4
03:00		2	5							7
04:00		9	27							36
05:00		51	83							134
06:00		73	155							228
07:00		115	**251**							**366**
08:00		109	151							260
09:00		132	142							274
10:00		**178**	157							335
11:00		166	169							335
12:00 PM		138	177							315
01:00		149	157							306
02:00		182	179							361
03:00		**218**	**181**							**399**
04:00		204	176							380
05:00		159	147							306
06:00		122	99							221
07:00		81	67							148
08:00		83	34							117
09:00		42	29							71
10:00		20	17							37
11:00		6	8							14
Total		2244	2425							4669
Percent		48.1%	51.9%							
AM Peak	-	10:00	07:00	-	-	-	-	-	-	07:00
Vol.	-	178	251	-	-	-	-	-	-	366
PM Peak	-	15:00	15:00	-	-	-	-	-	-	15:00
Vol.	-	218	181	-	-	-	-	-	-	399
Grand Total		4743	5429							10172
Percent		46.6%	53.4%							
ADT		ADT 5,030		AADT 5,030						

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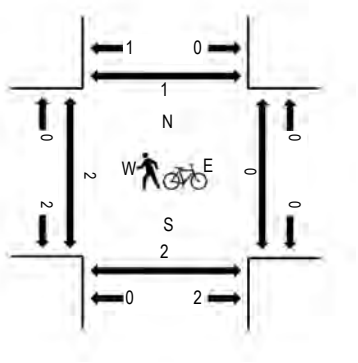
Location: 1 PRAIRIE HAWK DR & WOLFENSBERGER RD AM
Date: Thursday, June 30, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



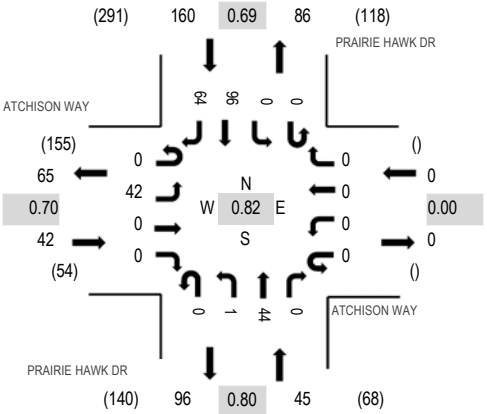
Traffic Counts

Interval Start Time	WOLFENSBERGER RD Eastbound				WOLFENSBERGER RD Westbound				PRAIRIE HAWK DR Northbound				PRAIRIE HAWK DR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	11	70	2	0	18	30	23	0	1	1	6	0	28	3	6	199	991	0	0	0	1
7:15 AM	0	11	88	3	0	22	36	35	0	0	2	12	0	28	4	6	247	1,106	0	0	0	1
7:30 AM	0	14	83	8	0	26	29	32	0	1	0	5	0	40	7	12	257	1,157	1	0	1	0
7:45 AM	0	16	86	11	0	48	32	32	0	0	1	6	0	43	4	9	288	1,213	0	0	1	0
8:00 AM	1	19	94	3	0	32	57	28	0	2	5	19	0	40	7	7	314	1,333	0	0	0	0
8:15 AM	0	13	74	5	0	28	41	45	0	0	4	15	0	48	12	13	298		2	0	0	0
8:30 AM	0	17	103	3	0	25	41	32	0	0	2	24	0	50	4	12	313		0	0	2	0
8:45 AM	1	29	120	7	0	39	49	54	0	2	5	21	0	66	9	6	408		0	0	0	1
Count Total	2	130	718	42	0	238	315	281	0	6	20	108	0	343	50	71	2,324		3	0	4	3
Peak Hour	2	78	391	18	0	124	188	159	0	4	16	79	0	204	32	38	1,333		2	0	2	1

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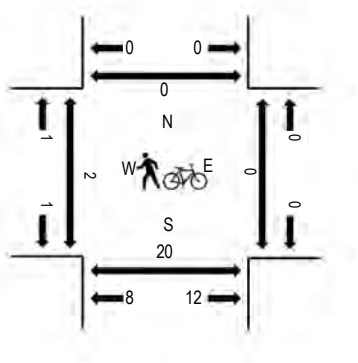
Location: 2 PRAIRIE HAWK DR & ATCHISON WAY AM
Date: Thursday, June 30, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



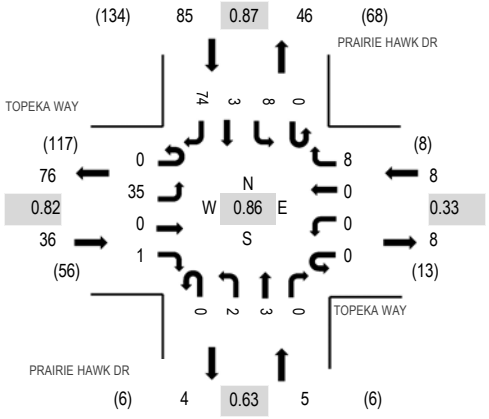
Traffic Counts

Interval Start Time	ATCHISON WAY Eastbound				ATCHISON WAY Westbound				PRAIRIE HAWK DR Northbound				PRAIRIE HAWK DR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	2	0	0	0	0	0	0	0	0	3	0	0	0	2	15	22	166	0	0	0	0
7:15 AM	0	8	0	0	0	0	0	0	0	0	8	0	0	0	12	14	42	206	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	1	3	0	0	0	8	18	31	216	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	2	6	0	0	0	22	40	71	243	0	0	1	0
8:00 AM	0	7	0	0	0	0	0	0	0	0	14	0	0	0	25	16	62	247	0	0	0	0
8:15 AM	0	8	0	0	0	0	0	0	0	0	7	0	0	0	28	9	52		0	0	4	0
8:30 AM	0	15	0	0	0	0	0	0	0	1	11	0	0	0	19	12	58		2	0	14	0
8:45 AM	0	12	0	0	0	0	0	0	0	0	12	0	0	0	24	27	75		0	0	2	0
Count Total	0	54	0	0	0	0	0	0	0	4	64	0	0	0	140	151	413		2	0	21	0
Peak Hour	0	42	0	0	0	0	0	0	0	1	44	0	0	0	96	64	247		2	0	20	0

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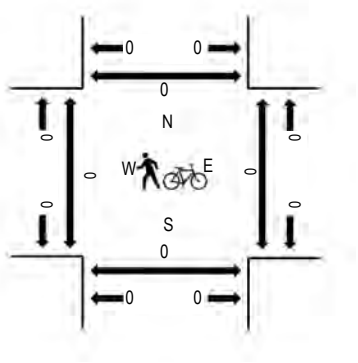
Location: 3 PRAIRIE HAWK DR & TOPEKA WAY AM
Date: Thursday, June 30, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



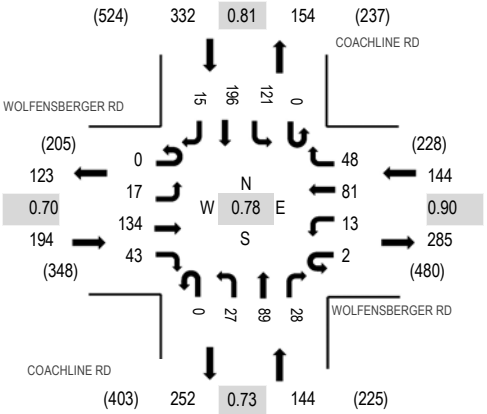
Traffic Counts

Interval Start Time	TOPEKA WAY Eastbound				TOPEKA WAY Westbound				PRAIRIE HAWK DR Northbound				PRAIRIE HAWK DR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	7	11	70	0	0	0	0
7:15 AM	0	8	0	0	0	0	0	0	0	0	0	0	0	1	1	10	20	98	0	0	0	0
7:30 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	1	1	7	14	113	0	0	0	0
7:45 AM	0	4	0	0	0	0	0	0	0	1	0	0	2	2	0	16	25	127	0	0	0	0
8:00 AM	0	8	0	0	0	0	0	6	0	0	1	0	0	3	1	20	39	134	0	0	0	0
8:15 AM	0	7	0	1	0	0	0	1	0	0	1	0	0	4	2	19	35		0	0	0	0
8:30 AM	0	9	0	0	0	0	0	0	0	1	0	0	0	0	0	18	28		0	0	0	0
8:45 AM	0	11	0	0	0	0	0	1	0	1	1	0	0	1	0	17	32		0	0	0	0
Count Total	0	55	0	1	0	0	0	8	0	3	3	0	2	13	5	114	204		0	0	0	0
Peak Hour	0	35	0	1	0	0	0	8	0	2	3	0	0	8	3	74	134		0	0	0	0

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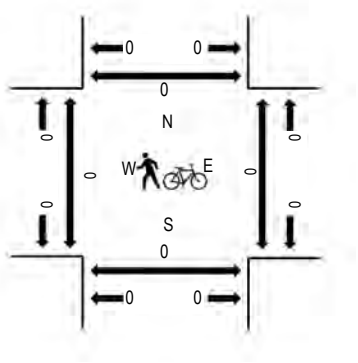
Location: 4 COACHLINE RD & WOLFENSBERGER RD AM
Date: Thursday, June 30, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



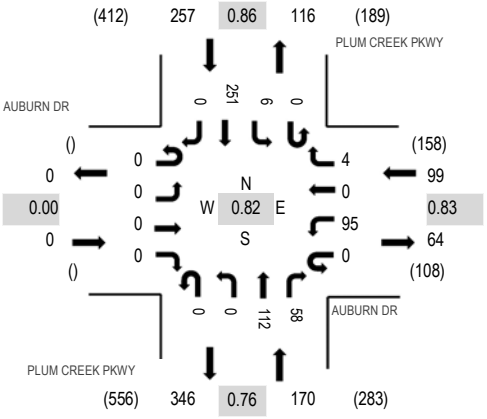
Traffic Counts

Interval Start Time	WOLFENSBERGER RD Eastbound				WOLFENSBERGER RD Westbound				COACHLINE RD Northbound				COACHLINE RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	2	24	3	0	3	14	4	0	3	11	3	0	12	19	1	99	511	0	0	0	0
7:15 AM	0	3	26	10	0	0	13	6	0	2	8	8	0	15	26	1	118	581	0	0	0	0
7:30 AM	0	2	27	7	1	2	12	5	0	5	10	0	0	16	36	3	126	652	0	0	2	0
7:45 AM	0	5	35	10	0	0	20	4	0	3	23	5	0	23	35	5	168	722	0	0	0	0
8:00 AM	0	4	29	9	2	1	19	15	0	7	14	3	0	21	40	5	169	814	0	0	0	0
8:15 AM	0	4	27	10	0	4	22	13	0	4	23	6	0	27	44	5	189		0	0	0	0
8:30 AM	0	5	30	7	0	2	17	9	0	6	24	8	0	27	59	2	196		0	0	0	0
8:45 AM	0	4	48	17	0	6	23	11	0	10	28	11	0	46	53	3	260		0	0	0	0
Count Total	0	29	246	73	3	18	140	67	0	40	141	44	0	187	312	25	1,325		0	0	2	0
Peak Hour	0	17	134	43	2	13	81	48	0	27	89	28	0	121	196	15	814		0	0	0	0

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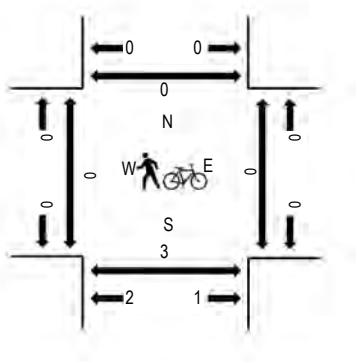
Location: 5 PLUM CREEK PKWY & AUBURN DR AM
Date: Thursday, June 30, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



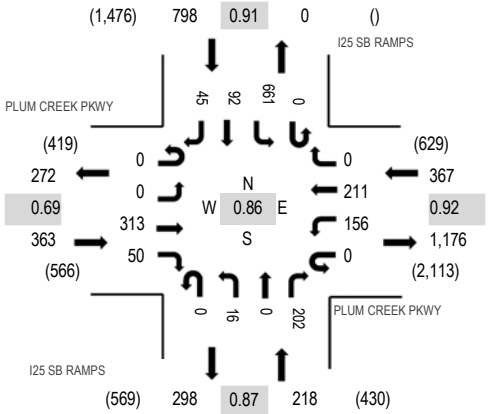
Traffic Counts

Interval Start Time	AUBURN DR Eastbound				AUBURN DR Westbound				PLUM CREEK PKWY Northbound				PLUM CREEK PKWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	11	0	0	0	0	15	8	0	1	27	0	62	327	0	0	1	0
7:15 AM	0	0	0	0	0	15	0	0	0	0	14	10	0	2	33	0	74	366	0	0	1	0
7:30 AM	0	0	0	0	0	16	0	0	0	0	17	7	0	0	46	0	86	405	0	1	1	0
7:45 AM	0	0	0	0	0	17	0	0	0	0	27	15	0	1	45	0	105	471	0	0	0	0
8:00 AM	0	0	0	0	0	14	0	2	0	0	18	13	0	0	54	0	101	526	0	0	1	0
8:15 AM	0	0	0	0	0	23	0	1	0	0	22	13	0	2	52	0	113		0	0	0	0
8:30 AM	0	0	0	0	0	29	0	1	0	0	33	15	0	2	72	0	152		0	0	0	0
8:45 AM	0	0	0	0	0	29	0	0	0	0	39	17	0	2	73	0	160		0	0	2	0
Count Total	0	0	0	0	0	154	0	4	0	0	185	98	0	10	402	0	853		0	1	6	0
Peak Hour	0	0	0	0	0	95	0	4	0	0	112	58	0	6	251	0	526		0	0	3	0

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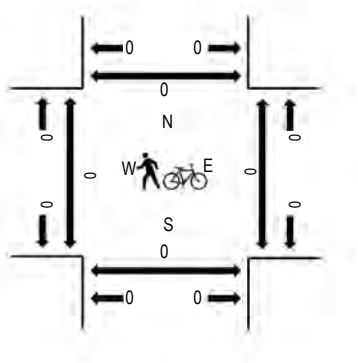
Location: 6 I25 SB RAMPS & PLUM CREEK PKWY AM
Date: Thursday, June 30, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



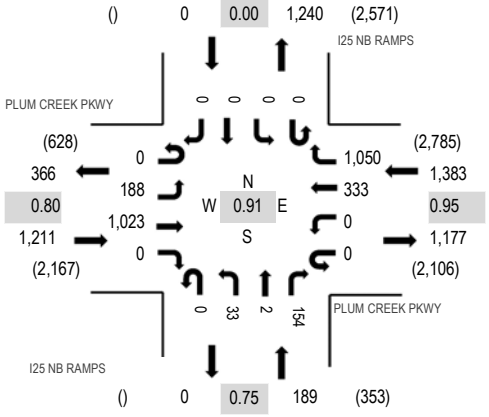
Traffic Counts

Interval Start Time	PLUM CREEK PKWY Eastbound				PLUM CREEK PKWY Westbound				I25 SB RAMPS Northbound				I25 SB RAMPS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	32	6	0	34	20	0	0	3	0	47	0	150	16	2	310	1,355	0	0	0	0
7:15 AM	0	0	31	15	0	42	24	0	0	3	0	48	0	125	20	8	316	1,405	0	0	0	0
7:30 AM	0	0	51	9	0	38	20	0	0	3	0	48	0	129	22	6	326	1,493	0	0	0	0
7:45 AM	0	0	50	9	0	36	48	0	0	2	0	58	0	168	24	8	403	1,641	0	0	0	0
8:00 AM	0	0	49	9	0	37	36	0	0	2	0	42	0	152	23	10	360	1,746	0	0	0	0
8:15 AM	0	0	53	13	0	39	61	0	0	6	0	57	0	134	25	16	404		0	0	0	0
8:30 AM	0	0	91	17	0	43	54	0	0	3	0	46	0	188	22	10	474		0	0	0	0
8:45 AM	0	0	120	11	0	37	60	0	0	5	0	57	0	187	22	9	508		0	0	0	0
Count Total	0	0	477	89	0	306	323	0	0	27	0	403	0	1,233	174	69	3,101		0	0	0	0
Peak Hour	0	0	313	50	0	156	211	0	0	16	0	202	0	661	92	45	1,746		0	0	0	0

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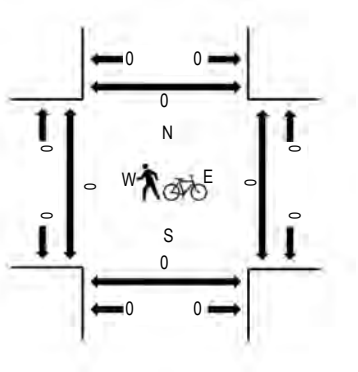
Location: 7 I25 NB RAMPS & PLUM CREEK PKWY AM
Date: Thursday, June 30, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

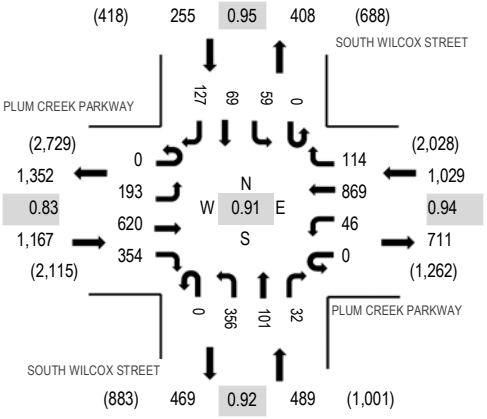
Interval Start Time	PLUM CREEK PKWY Eastbound				PLUM CREEK PKWY Westbound				I25 NB RAMPS Northbound				I25 NB RAMPS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	46	192	0	0	0	51	267	0	4	1	21	0	0	0	0	582	2,522	0	0	0	0
7:15 AM	0	38	171	0	0	0	59	302	0	5	0	27	0	0	0	0	602	2,556	0	0	0	0
7:30 AM	0	43	193	0	0	0	56	298	0	3	0	34	0	0	0	0	627	2,617	0	0	0	0
7:45 AM	0	41	232	0	0	0	75	294	0	9	1	59	0	0	0	0	711	2,728	0	0	0	0
8:00 AM	0	35	224	0	0	0	69	247	0	10	1	30	0	0	0	0	616	2,783	0	0	0	0
8:15 AM	0	38	215	0	0	0	92	266	0	4	0	48	0	0	0	0	663		0	0	0	0
8:30 AM	0	55	266	0	0	0	91	282	0	8	0	36	0	0	0	0	738		0	0	0	0
8:45 AM	0	60	318	0	0	0	81	255	0	11	1	40	0	0	0	0	766		0	0	0	0
Count Total	0	356	1,811	0	0	0	574	2,211	0	54	4	295	0	0	0	0	5,305		0	0	0	0
Peak Hour	0	188	1,023	0	0	0	333	1,050	0	33	2	154	0	0	0	0	2,783		0	0	0	0

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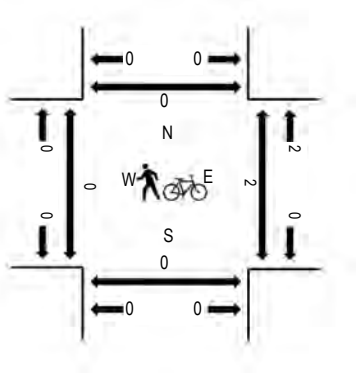
Location: 8 SOUTH WILCOX STREET & PLUM CREEK PARKWAY AM
Date: Thursday, June 30, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



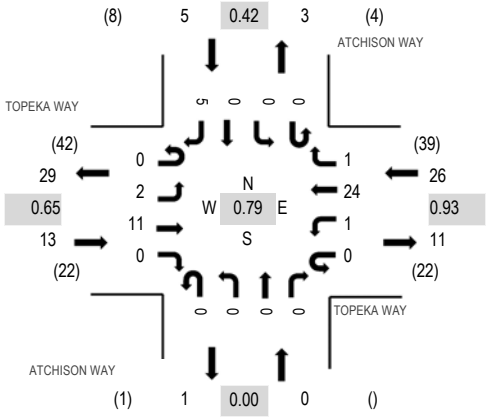
Traffic Counts

Interval Start Time	PLUM CREEK PARKWAY Eastbound				PLUM CREEK PARKWAY Westbound				SOUTH WILCOX STREET Northbound				SOUTH WILCOX STREET Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	24	118	72	0	13	190	16	0	113	16	4	0	8	9	23	606	2,622	0	0	0	0
7:15 AM	0	20	105	75	0	12	228	19	0	112	17	5	0	7	6	20	626	2,677	0	1	0	0
7:30 AM	0	31	125	77	0	12	228	27	0	88	16	2	0	5	13	14	638	2,747	0	0	0	0
7:45 AM	0	52	155	94	0	12	219	23	0	117	19	3	0	14	19	25	752	2,887	0	0	0	0
8:00 AM	0	39	137	79	0	9	189	26	0	90	24	7	0	13	20	28	661	2,940	0	0	0	0
8:15 AM	0	49	130	76	0	16	228	16	0	81	30	6	0	12	18	34	696		0	0	0	0
8:30 AM	0	41	174	90	0	7	233	33	0	105	24	8	0	16	14	33	778		0	1	0	0
8:45 AM	0	64	179	109	0	14	219	39	0	80	23	11	0	18	17	32	805		0	0	0	0
Count Total	0	320	1,123	672	0	95	1,734	199	0	786	169	46	0	93	116	209	5,562		0	2	0	0
Peak Hour	0	193	620	354	0	46	869	114	0	356	101	32	0	59	69	127	2,940		0	1	0	0

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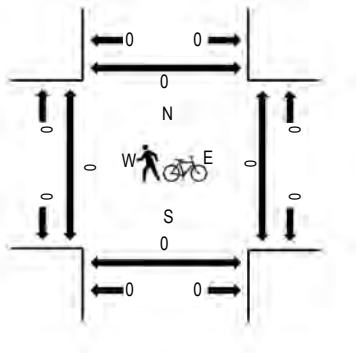
Location: 9 ATCHISON WAY & TOPEKA WAY AM
Date: Thursday, June 30, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



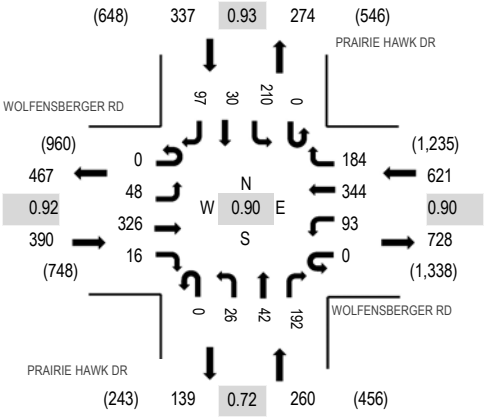
Traffic Counts

Interval Start Time	TOPEKA WAY Eastbound				TOPEKA WAY Westbound				ATCHISON WAY Northbound				ATCHISON WAY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	2	0	0	0	2	1	0	0	0	0	0	0	0	0	5	25	0	0	0	0
7:15 AM	0	0	5	0	0	0	4	0	0	0	0	0	0	1	0	0	10	26	0	0	0	0
7:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2	27	0	0	0	0
7:45 AM	0	0	1	0	0	0	6	0	0	0	0	0	0	0	0	1	8	38	0	0	0	0
8:00 AM	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	6	44	0	0	0	0
8:15 AM	0	1	3	0	0	1	6	0	0	0	0	0	0	0	0	0	11		0	0	0	0
8:30 AM	0	1	3	0	0	0	7	0	0	0	0	0	0	0	0	2	13		0	0	0	0
8:45 AM	0	0	5	0	0	0	5	1	0	0	0	0	0	0	0	3	14		0	0	0	0
Count Total	0	2	20	0	0	1	36	2	0	0	0	0	0	2	0	6	69		0	0	0	0
Peak Hour	0	2	11	0	0	1	24	1	0	0	0	0	0	0	0	5	44		0	0	0	0

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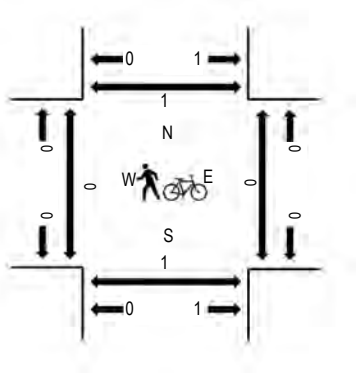
Location: 1 PRAIRIE HAWK DR & WOLFENSBERGER RD PM
Date: Thursday, June 30, 2022
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:30 PM - 04:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



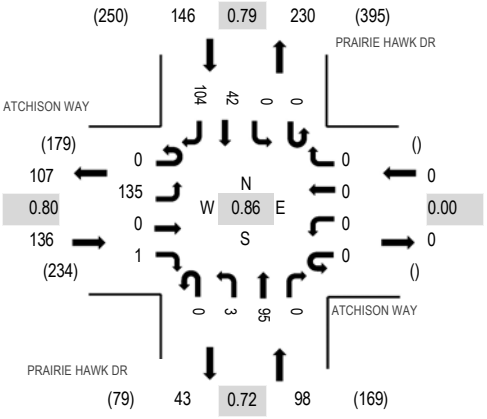
Traffic Counts

Interval Start Time	WOLFENSBERGER RD Eastbound				WOLFENSBERGER RD Westbound				PRAIRIE HAWK DR Northbound				PRAIRIE HAWK DR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	13	81	7	0	29	94	57	0	8	10	42	0	54	4	32	431	1,608	0	0	0	0
4:15 PM	0	13	79	3	0	21	85	37	0	4	7	52	0	59	12	20	392	1,578	0	0	1	1
4:30 PM	0	11	95	1	0	19	93	53	0	11	18	65	0	50	9	24	449	1,589	0	0	0	0
4:45 PM	0	11	71	5	0	24	72	37	0	3	7	33	0	47	5	21	336	1,476	0	0	0	0
5:00 PM	0	16	79	9	0	25	89	45	0	7	18	47	0	36	6	24	401	1,479	0	0	0	0
5:15 PM	0	15	76	1	0	10	121	45	0	4	8	42	0	58	4	19	403		1	0	2	0
5:30 PM	0	17	60	3	0	17	76	43	0	6	7	22	0	55	6	24	336		0	0	0	0
5:45 PM	0	11	67	4	0	10	95	38	0	8	9	18	0	50	9	20	339		0	0	0	0
Count Total	0	107	608	33	0	155	725	355	0	51	84	321	0	409	55	184	3,087		1	0	3	1
Peak Hour	0	48	326	16	0	93	344	184	0	26	42	192	0	210	30	97	1,608		0	0	1	1

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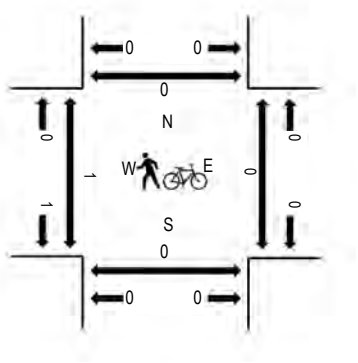
Location: 2 PRAIRIE HAWK DR & ATCHISON WAY PM
Date: Thursday, June 30, 2022
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



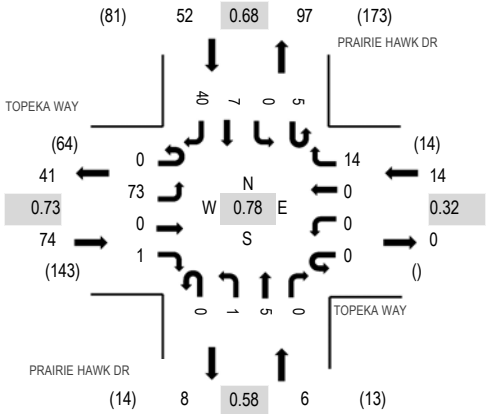
Traffic Counts

Interval Start Time	ATCHISON WAY Eastbound				ATCHISON WAY Westbound				PRAIRIE HAWK DR Northbound				PRAIRIE HAWK DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	27	0	0	0	0	0	0	1	1	23	0	0	0	20	23	95	364	0	0	0	0
4:15 PM	0	26	0	0	0	0	0	0	0	0	22	0	0	0	15	20	83	380	1	0	0	0
4:30 PM	0	44	0	0	0	0	0	0	0	0	34	0	0	0	12	19	109	364	0	0	0	0
4:45 PM	0	28	0	1	0	0	0	0	0	0	14	0	0	0	5	29	77	311	0	0	0	0
5:00 PM	0	37	0	0	0	0	0	0	0	3	25	0	0	0	10	36	111	289	0	0	0	0
5:15 PM	0	30	0	1	0	0	0	0	0	0	21	0	0	0	5	10	67		0	0	0	0
5:30 PM	0	17	0	0	0	0	0	0	0	1	14	0	0	0	6	18	56		0	0	0	0
5:45 PM	0	23	0	0	0	0	0	0	0	0	10	0	0	0	3	19	55		0	0	0	0
Count Total	0	232	0	2	0	0	0	0	1	5	163	0	0	0	76	174	653		1	0	0	0
Peak Hour	0	135	0	1	0	0	0	0	0	3	95	0	0	0	42	104	380		1	0	0	0

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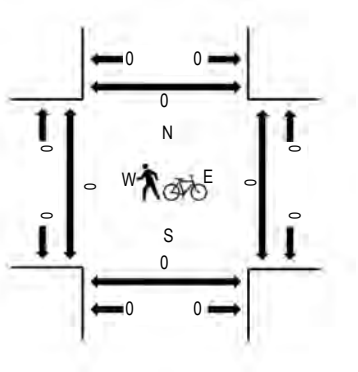
Location: 3 PRAIRIE HAWK DR & TOPEKA WAY PM
Date: Thursday, June 30, 2022
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:00 PM - 04:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



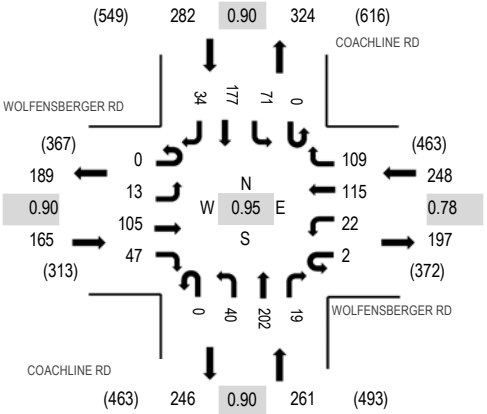
Traffic Counts

Interval Start Time	TOPEKA WAY Eastbound				TOPEKA WAY Westbound				PRAIRIE HAWK DR Northbound				PRAIRIE HAWK DR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	24	0	1	0	0	0	0	0	1	2	0	1	0	5	13	47	146	0	0	0	0
4:15 PM	0	17	0	0	0	0	0	1	0	0	2	0	2	0	0	14	36	135	0	0	0	0
4:30 PM	0	21	0	0	0	0	0	11	0	0	0	0	2	0	0	8	42	130	0	0	0	0
4:45 PM	0	11	0	0	0	0	0	2	0	0	1	0	0	0	2	5	21	109	0	0	0	0
5:00 PM	0	27	0	0	0	0	0	0	0	0	1	0	0	0	1	7	36	105	0	0	0	0
5:15 PM	0	20	0	0	0	0	0	0	0	0	1	0	0	0	3	7	31		0	0	0	0
5:30 PM	0	12	0	0	0	0	0	0	0	1	2	0	1	0	2	3	21		0	0	0	0
5:45 PM	0	10	0	0	0	0	0	0	0	0	2	0	0	0	0	5	17		0	0	0	0
Count Total	0	142	0	1	0	0	0	14	0	2	11	0	6	0	13	62	251		0	0	0	0
Peak Hour	0	73	0	1	0	0	0	14	0	1	5	0	5	0	7	40	146		0	0	0	0

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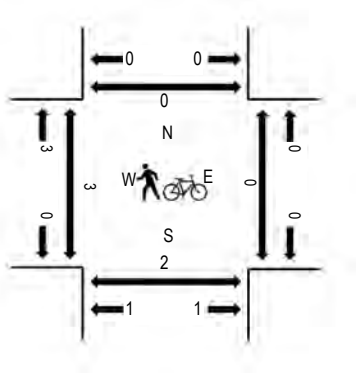
Location: 4 COACHLINE RD & WOLFENSBERGER RD PM
Date: Thursday, June 30, 2022
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



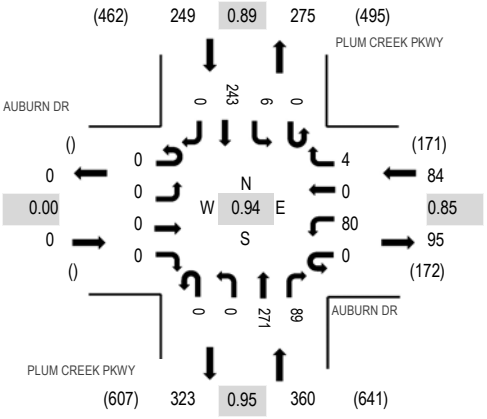
Traffic Counts

Interval Start Time	WOLFENSBERGER RD Eastbound				WOLFENSBERGER RD Westbound				COACHLINE RD Northbound				COACHLINE RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	7	25	8	0	3	27	23	0	11	37	5	0	21	47	11	225	917	0	0	0	0
4:15 PM	0	10	23	11	1	6	24	27	0	7	35	4	0	15	44	10	217	921	0	0	0	0
4:30 PM	0	3	26	9	0	6	32	19	0	11	45	6	0	27	42	14	240	956	0	0	0	0
4:45 PM	0	1	27	19	2	2	27	21	0	13	51	3	0	13	50	6	235	947	0	0	0	0
5:00 PM	0	4	24	12	0	6	20	33	0	8	51	7	0	19	38	7	229	901	2	0	0	0
5:15 PM	0	5	28	7	0	8	36	36	0	8	55	3	0	12	47	7	252		0	0	0	0
5:30 PM	0	3	17	11	1	7	27	17	2	11	59	4	0	20	43	9	231		0	0	0	0
5:45 PM	0	5	19	9	0	0	28	24	0	5	45	7	0	13	26	8	189		0	0	0	0
Count Total	0	38	189	86	4	38	221	200	2	74	378	39	0	140	337	72	1,818		2	0	0	0
Peak Hour	0	13	105	47	2	22	115	109	0	40	202	19	0	71	177	34	956		2	0	0	0

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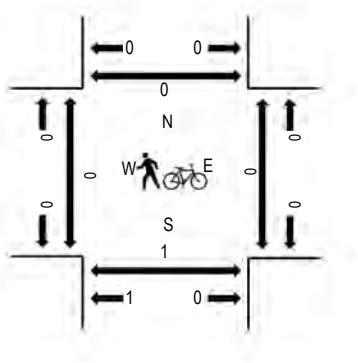
Location: 5 PLUM CREEK PKWY & AUBURN DR PM
Date: Thursday, June 30, 2022
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 04:45 PM - 05:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



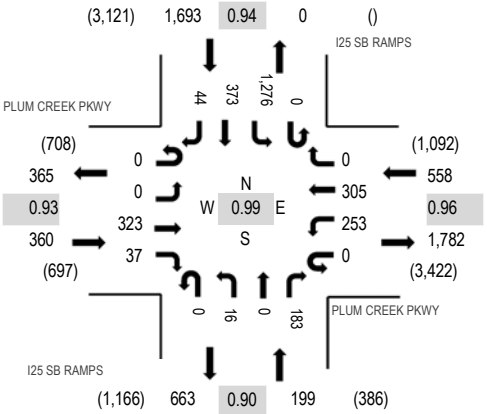
Traffic Counts

Interval Start Time	AUBURN DR Eastbound				AUBURN DR Westbound				PLUM CREEK PKWY Northbound				PLUM CREEK PKWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	0	0	0	18	0	1	0	0	47	22	0	3	52	0	143	643	0	0	0	0
4:15 PM	0	0	0	0	0	24	0	3	0	0	47	23	0	2	64	0	163	676	0	0	0	0
4:30 PM	0	0	0	0	0	19	0	1	0	0	62	13	0	2	55	0	152	680	0	0	0	0
4:45 PM	0	0	0	0	0	18	0	1	0	0	68	27	0	0	71	0	185	693	0	0	1	0
5:00 PM	0	0	0	0	0	25	0	1	0	0	73	19	0	3	55	0	176	631	0	0	0	0
5:15 PM	0	0	0	0	0	22	0	2	0	0	63	23	0	3	54	0	167		0	0	0	0
5:30 PM	0	0	0	0	0	15	0	0	0	0	67	20	0	0	63	0	165		0	0	0	0
5:45 PM	0	0	0	0	0	18	0	3	0	0	56	11	0	1	34	0	123		0	0	0	0
Count Total	0	0	0	0	0	159	0	12	0	0	483	158	0	14	448	0	1,274		0	0	1	0
Peak Hour	0	0	0	0	0	80	0	4	0	0	271	89	0	6	243	0	693		0	0	1	0

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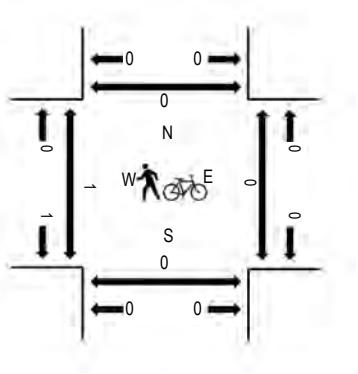
Location: 6 I25 SB RAMPS & PLUM CREEK PKWY PM
Date: Thursday, June 30, 2022
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 04:45 PM - 05:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



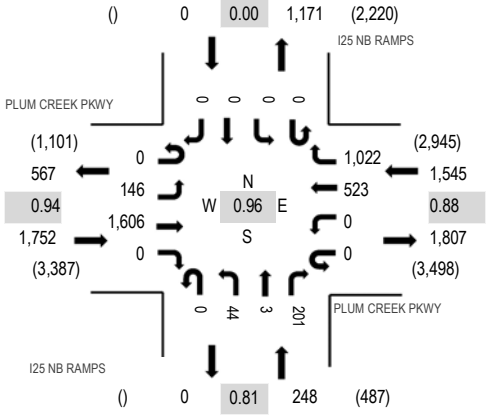
Traffic Counts

Interval Start Time	PLUM CREEK PKWY Eastbound				PLUM CREEK PKWY Westbound				I25 SB RAMPS Northbound				I25 SB RAMPS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	78	9	0	63	64	0	0	6	0	44	0	278	48	10	600	2,716	0	0	0	0
4:15 PM	0	0	69	9	0	57	67	0	0	2	0	50	0	345	87	17	703	2,810	0	0	0	0
4:30 PM	0	0	87	12	0	69	63	0	0	7	0	36	0	316	100	14	704	2,808	0	0	0	0
4:45 PM	0	0	82	9	0	65	87	0	0	4	0	52	0	312	92	6	709	2,726	1	0	0	0
5:00 PM	0	0	85	7	0	62	88	0	0	3	0	45	0	303	94	7	694	2,580	0	0	0	0
5:15 PM	1	0	78	7	0	54	93	0	0	1	0	44	0	330	78	15	701		0	0	0	0
5:30 PM	0	0	86	8	0	60	74	0	0	5	0	45	0	290	51	3	622		0	0	0	0
5:45 PM	0	0	62	8	0	64	62	0	0	1	0	41	0	264	53	8	563		0	0	0	0
Count Total	1	0	627	69	0	494	598	0	0	29	0	357	0	2,438	603	80	5,296		1	0	0	0
Peak Hour	0	0	323	37	0	253	305	0	0	16	0	183	0	1,276	373	44	2,810		1	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

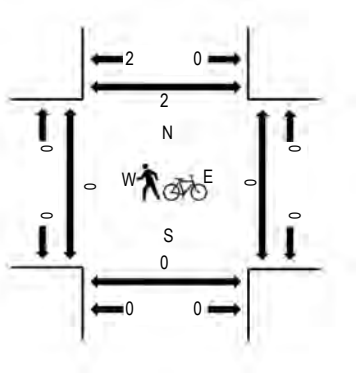
Location: 7 I25 NB RAMPS & PLUM CREEK PKWY PM
Date: Thursday, June 30, 2022
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



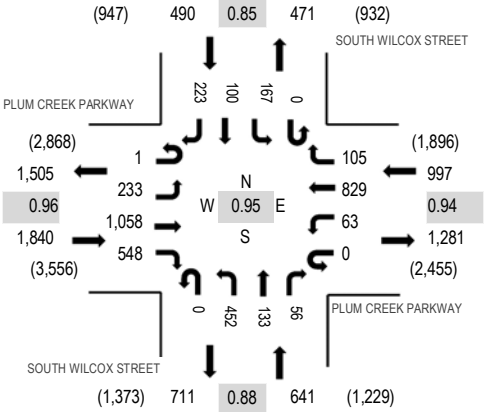
Traffic Counts

Interval Start Time	PLUM CREEK PKWY Eastbound				PLUM CREEK PKWY Westbound				I25 NB RAMPS Northbound				I25 NB RAMPS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	36	373	0	0	0	121	221	0	7	1	41	0	0	0	0	800	3,421	0	0	0	0
4:15 PM	0	40	427	0	0	0	120	252	0	8	2	47	0	0	0	0	896	3,545	0	0	0	0
4:30 PM	0	36	399	0	0	0	115	232	0	16	1	61	0	0	0	0	860	3,517	0	0	0	0
4:45 PM	0	34	393	0	0	0	147	236	0	9	0	46	0	0	0	0	865	3,512	0	0	0	1
5:00 PM	0	36	387	0	0	0	141	302	0	11	0	47	0	0	0	0	924	3,398	0	0	0	0
5:15 PM	0	33	413	0	0	0	133	226	0	14	2	47	0	0	0	0	868		0	0	0	0
5:30 PM	0	41	376	0	0	0	120	248	0	13	1	56	0	0	0	0	855		0	0	0	0
5:45 PM	0	25	338	0	0	0	116	215	0	10	0	47	0	0	0	0	751		0	0	0	0
Count Total	0	281	3,106	0	0	0	1,013	1,932	0	88	7	392	0	0	0	0	6,819		0	0	0	1
Peak Hour	0	146	1,606	0	0	0	523	1,022	0	44	3	201	0	0	0	0	3,545		0	0	0	1

ALL TRAFFIC DATA SERVICES
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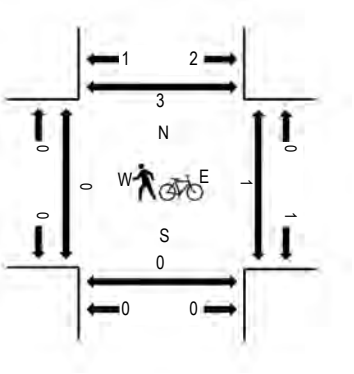
Location: 8 SOUTH WILCOX STREET & PLUM CREEK PARKWAY PM
Date: Thursday, June 30, 2022
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



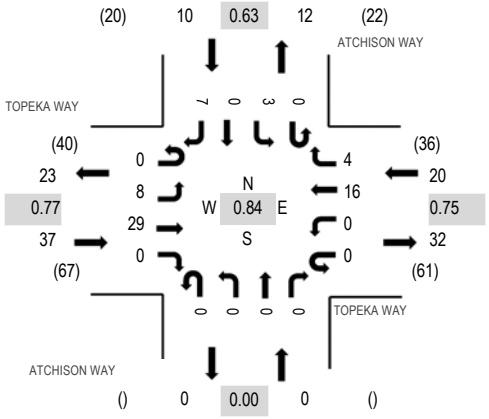
Traffic Counts

Interval Start Time	PLUM CREEK PARKWAY Eastbound				PLUM CREEK PARKWAY Westbound				SOUTH WILCOX STREET Northbound				SOUTH WILCOX STREET Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	50	248	110	0	6	188	31	0	84	29	15	0	38	34	63	896	3,816	0	0	0	0
4:15 PM	0	58	261	141	0	15	189	27	0	117	36	9	0	30	35	49	967	3,964	0	0	0	0
4:30 PM	0	60	270	147	0	15	187	30	0	93	31	14	0	36	24	64	971	3,968	0	0	0	0
4:45 PM	1	63	256	139	0	16	223	24	0	105	25	18	0	47	26	39	982	3,954	0	0	0	0
5:00 PM	0	51	264	128	0	15	223	27	0	139	36	16	0	45	29	71	1,044	3,812	0	0	0	0
5:15 PM	0	59	268	134	0	17	196	24	0	115	41	8	0	39	21	49	971		0	0	0	3
5:30 PM	0	68	250	135	0	9	193	25	0	120	32	16	0	36	27	46	957		0	0	0	0
5:45 PM	0	53	233	109	0	10	184	22	0	90	30	10	0	28	31	40	840		1	0	1	0
Count Total	1	462	2,050	1,043	0	103	1,583	210	0	863	260	106	0	299	227	421	7,628		1	0	1	3
Peak Hour	1	233	1,058	548	0	63	829	105	0	452	133	56	0	167	100	223	3,968		0	0	0	3

ALL TRAFFIC DATA SERVICES
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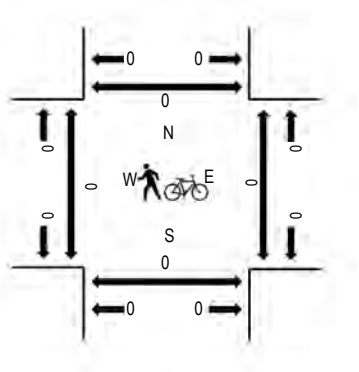
Location: 9 ATCHISON WAY & TOPEKA WAY PM
Date: Thursday, June 30, 2022
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:15 PM - 04:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	TOPEKA WAY Eastbound				TOPEKA WAY Westbound				ATCHISON WAY Northbound				ATCHISON WAY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	2	10	0	0	0	2	0	0	0	0	0	0	2	0	2	18	67	0	0	0	0
4:15 PM	0	4	8	0	0	0	5	1	0	0	0	0	0	0	0	2	20	62	0	0	0	0
4:30 PM	0	1	5	0	0	0	4	1	0	0	0	0	0	1	0	2	14	59	0	0	0	0
4:45 PM	0	1	6	0	0	0	5	2	0	0	0	0	0	0	0	1	15	58	0	0	0	0
5:00 PM	0	2	6	0	0	0	3	0	0	0	0	0	0	2	0	0	13	56	0	0	0	0
5:15 PM	0	1	7	0	0	0	5	1	0	0	0	0	0	2	0	1	17		0	0	0	0
5:30 PM	0	3	5	0	0	0	4	0	0	0	0	0	0	1	0	0	13		0	0	0	0
5:45 PM	0	2	4	0	0	0	2	1	0	0	0	0	0	2	0	2	13		0	0	0	0
Count Total	0	16	51	0	0	0	30	6	0	0	0	0	0	10	0	10	123		0	0	0	0
Peak Hour	0	8	29	0	0	0	16	4	0	0	0	0	0	3	0	7	67		0	0	0	0

APPENDIX “B”

EXISTING TRAFFIC SIGNAL TIMING PLANS

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Configuration Controller Sequence

Phase Ring Sequence and Assignment (MM) 1-1-1

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B		B		B		B		B							
Sequence 1																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 2																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 3																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 4																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 5																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 6																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 7																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 8																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 9																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 10																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 11																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 12																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.

Ring 2	**5**	**6**	**8**	**7**	**11**	**12**	**16**	**15**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**
Sequence 13																			
Ring 1	**1**	**2**	**3**	**4**	**9**	**10**	**13**	**14**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**
Ring 2	**6**	**5**	**8**	**7**	**12**	**11**	**16**	**15**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**
Sequence 14																			
Ring 1	**2**	**1**	**3**	**4**	**10**	**9**	**13**	**14**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**
Ring 2	**6**	**5**	**8**	**7**	**12**	**11**	**16**	**15**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**
Sequence 15																			
Ring 1	**1**	**2**	**4**	**3**	**9**	**10**	**14**	**13**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**
Ring 2	**6**	**5**	**8**	**7**	**12**	**11**	**16**	**15**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**
Sequence 16																			
Ring 1	**2**	**1**	**4**	**3**	**10**	**9**	**14**	**13**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**
Ring 2	**6**	**5**	**8**	**7**	**12**	**11**	**16**	**15**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**

Phases In Use/Exclusive Ped (MM) 1-2

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Phases In Use	X	X	X	X	X	X	X	X								
Exclusive Ped																

Phase Compatibility (MM) 1-1-2

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Approach	N	S	E	W	S	N	W	E	N	N	N	N	N	N	N	N
Movement	L	T	L	T	L	T	L	T								
Associated PED																
Overlap	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**
Approach	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Movement																

Administration (MM) 1-7-1

Enable Controller/Cabinet Interlock CRC	No
CRC (16 bit)	1956
Enable Automatic Backup to Datakey	No

Backup Prevent (MM) 1-1-3

Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timing Phases 1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	X		.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	X		.	.	.	.	.	.	.	.	.	.	.	.
5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
6	.	.	.	.	X		.	.	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	X		.	.	.	.	.	.	.	.
9	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
10	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

Simultaneous Gap (MM) 1-1-4

Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.		.	.	.	X	.	.	.	.	.	.	.	.
5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
Phase **6**	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.
Must **7**	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
Gap **8**	.	.	.	X	.	.	.		.	.	.	.	.	.	.	.
With **9**	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
Phase **10**	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
Disable	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MM) 1-3

	Phase / Overlap	Type	Dimming Red	Dimming Yellow	Dimming Green	Dimming Dark	Power Up	Auto Red	Auto Yellow	Flash Together
1	1	V				-	Auto	X		
2	2	V				-	Auto	X		X
3	3	V				-	Auto	X		
4	4	V				-	Auto	X		X
5	5	V				+	Auto	X		
6	6	V				+	Auto	X		X
7	7	V				+	Auto	X		
8	8	V				+	Auto	X		X
9	2	P				-	Auto			

10	4	P				-	Auto			
11	6	P				+	Auto			
12	8	P				+	Auto			
13	1	O				-	Auto	X		
14	2	O				+	Auto	X		X
15	3	O				-	Auto	X		
16	4	O				+	Auto	X		X

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Configuration Port 1 (SDLC)

Port 1 SDLC (MM) 1-4-1

BIU	1	2	3	4	5	6	7	8
Term & Facility								
Detector Rack	X	X	X	X				

Enable TS2/MMU Type Cabinet: No
Enable MMU Extended Status: No
Enable SDLC Stop Time: No
Enable 3 Critical RFE's Lockup: Yes

MMU Program (MM) 1-4-2

Channel Can Serve With Channel	
Channel 1	**Channel 2**

Color Check Enable (MM) 1-4-3

Enable Color Check: Yes

MMU/LS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Green	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Yellow	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Red	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Secondary Stations/Tests (MM) 1-4-4

ID	1	2	3	4	5	6	7	8	MMU
Term & Facility									

ID	1	2	3	4	5	6	7	8	Diag
Detector Rack									

Enable SDLC Diagnostic Test: No

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Configuration Communications 1 (SDLC)

Ethernet Port Configuration (MM) 1-5-1

DHCP Enable:	No
Controller IP:	10.50.60.60
Subnet Mask:	255.255.255.0
Default Gateway IP:	10.50.60.1
Server IP:	10.1.5.39

NTCIP (MM) 1-5-5

NTCIP Backup Time (Sec):	0
NTCIP UDP Port:	501
Ethernet Priority:	1
Port 2 Priority (Port C50S for 2070):	4
Port 3A Priority (Port C21S for 2070):	3
Port 3B Priority (Port C22S for 2070):	2

Port Configuration (MM) 1-5-2 to 1-5-4

Port	2 (C50S)	3A (C21S)	3B (C22S)
Comm Module	None	Auto	Auto
Protocol	NTCIP	NTCIP	NTCIP
Enable	No	No	No
Data Rate (BPS)	9600	9600	9600
Data, Parity, Stop	8 N 1	8 N 1	8 N 1
Address	0	0	0
Telemetry Response Delay	0.0	0.0	0.0
Duplex - Half or Full	Half	Full	Full
Flow Control	No	Yes	Yes
Group Address	0	0	0
Single Flag Enable	Yes	Yes	Yes
RTS to CTS Delay	n/a	n/a	0.0
RTS Turn Off Delay	n/a	n/a	0.0
Dropout Time	10	10	10
Early RTS	n/a	n/a	No
Telemetry Mode	n/a	n/a	FSK
ATCS Railroad	0	n/a	n/a
ATCS Railroad Line	0	n/a	n/a
ATCS Group	0	n/a	n/a
Wayside Device	0	n/a	n/a
ATC Device	0	n/a	n/a
Wayside Subnode	0	n/a	n/a
ATC Subnode	0	n/a	n/a

ECPIP (MM) 1-5-6

Controller Address: 0

Expanded System Detector Address: 0

System Detector Assignment

System Detector	Local Detector

Wireless Configuration (MM) 1-5-7

Wireless Channel Number: 1
Wireless Access Code: 327423274

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Configuration Logging / Display

Event Logging (MM) 1-6-1

Critical RFE's (MMU/TF)	Yes	3 Critical Errors Within 24 Hours	Yes
MMU Flash Faults	Yes	Local Flash Fault	Yes
Non-Critical RFE's (Det/Test)	Yes	Detector Errors	Yes
Coordination Errors	Yes	Controller Download	Yes
Preemption Events	Yes	TSP Events	Yes
Power On/Off	Yes	Low Battery	Yes
Access	Yes	Data Change	Yes
Online / Offline	Yes		

Alarm Event	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable Logging	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Display Options (MM) 1-7-2

Key Click Enable:	Yes
Switch to Graphics Mode:	No
LED Mode:	Auto
Display Mode:	Advanced
Trans Mode Pop-Up Disable:	No

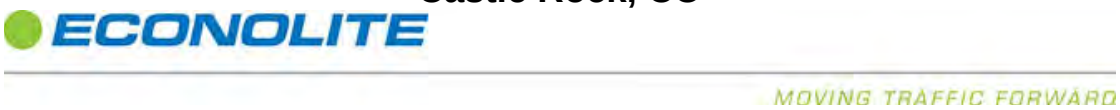
Sign On (MM) 8-5

Sign On Message Line 1: Wolfensberger & Prarie Hawk
Sign On Message Line 2:

Software Modules (MM) 8-7

Application Version: 32.66.10
OS (Boot) Version: 06.07.00

Castle Rock, CO



001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Logic Processor Page 1

Logic Statement Control (MM) 1-8-1

Logic #	Statement Control
1	D
2	D
3	D

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Logic Processor Page 2

Logic Statements (MM) 1-8-2

Logic #: 1 - "Stop Time"

If:

	Peer	T/F	Assignment	#	State
IF	--	F	LP COB CODE ON		520

Then:

Assignment	#	State
CTR SET STIME RING	1	On
CTR SET STIME RING	2	On

Logic #: 2 - "CTL ST"

If:

	Peer	T/F	Assignment	#	State
IF	--	F	LP CIB CODE ON		424

Then:

Assignment	#	State
LP SET CIB ON	135	
LP SET CIB ON	143	

Logic #: 3 - "Door Open"

If:

	Peer	T/F	Assignment	#	State
IF	--	F	LP CIB CODE ON		160

Then:

Assignment	#	State
CTR SET ALARM	1	On

Else:

Assignment	#	State
CTR SET ALARM	1	Off

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Controller Timing Plan (MM) 2-1

Plan 1 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	3	8	3	8	3	8	5	8	0	0	0	0	0	0	0	0
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Walk	0	7	0	8	0	7	0	7	0	0	0	0	0	0	0	0
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	19	0	26	0	20	0	25	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	1.0	1.0	1.0	3.0	1.0	1.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	30	26	10	28	10	26	30	30	0	0	0	0	0	0	0	0
Max2	30	26	10	28	12	30	30	30	0	0	0	0	0	0	0	0
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Clear	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	3	8	3	5	3	8	3	3	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	1.0	1.0	1.0	3.0	1.0	1.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 2 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 3 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 4 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	3	8	3	5	3	8	5	5	0	0	0	0	0	0	0	0
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Walk	0	7	0	8	0	7	0	7	0	0	0	0	0	0	0	0
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	19	0	26	0	20	0	25	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	1.0	1.0	1.0	3.0	1.0	1.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	15	26	10	28	10	90	30	28	0	0	0	0	0	0	0	0
Max2	12	12	7	7	12	12	7	7	0	0	0	0	0	0	0	0
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Clear	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	3	8	3	5	3	8	5	5	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	1.0	1.0	1.0	3.0	1.0	1.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Controller Overlaps

Vehicle Overlaps (MM) 2-2

Overlap	Type	Lag Green	Yellow	Red	Adv. Green

Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable
A	1	2	Green Overlap	13	0.0	0.0	1	No
B	3	4	Green Overlap	14	0.0	0.0	2	No
C	5	6	Green Overlap	15	0.0	0.0	3	No
D	7	8	Green Overlap	16	0.0	0.0	4	No

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	3	0	7	3.0	0.0	5
B02	3	0	7	3.0	0.0	5
C03	3	0	7	3.0	0.0	5
D04	3	0	7	3.0	0.0	5
E05	3	0	7	3.0	0.0	5
F06	3	0	7	3.0	0.0	5
G07	3	0	7	3.0	0.0	5
H08	3	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5
O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Controller Pedestrian Overlaps
Vehicle / Pedestrian Overlaps (MM) 2-3

Included	Pedestrian Overlaps

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Controller Start / Flash Data (MM) 2-5

Start Up

Phase	Phase Setting
1	.
2	Y
3	.
4	.
5	.
6	Y
7	.
8	.
9	.
10	.
11	.
12	.
13	.
14	.
15	.
16	.

Overlap
A
B
C
D

Flash Thru Mon: No
Flash Time: 0
All Red: 6
Power Start Seq: 1
MUTCD Enabled: No
Y->G: n/a

Automatic Flash

Entry
2
6

Exit
2

6

Overlap Exit
A
B
C
D

Flash Thru Mon: No
Exit Flash: W
Minimum Flash: 8
Mimimum Recall: No
Cycle Through Phase: No

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Controller Options

Controller Options (MM) 2-6-1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Grn Ph	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Guar Passage																
Non-Act I		X				X										
Non-Act II				X				X								
Dual Entry		X		X		X		X								
Cond Service																
Cond Reservice																
Ped Re-Service																
Rest In Walk																
Flashing Walk																
Ped Clr-Yel																
Ped Clr-Red																
IGRN + Veh Ext																

Ped Clear Protect: Off Unit Red Revert: 2.0 MUTCD 3 Seconds Don't Walk: No

Pre-Timed Mode (MM) 2-7

Enable Pre-Timed Mode: No Free Input Disables Pre-Timed: No

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre-Timed																

Phase Recall Options (MM) 2-8

Plan # 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall		X				X										
Ped Recall																
Max Recall																
Soft Recall																
No Rest																
AI Calc																

Plan # 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall		X				X										

Ped Recall																
Max Recall																
Soft Recall																
No Rest																
AI Calc																

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Coordination Options

Options (MM) 3-1

Manual Pattern	Auto	ECPI Coord	Yes
System Source	SYS	System Format	PTN
Splits In	Percent	Offsets In	Seconds
Transition	Smooth	Max Select	MAXINH
Dwell / Add Time	0		
Delay Coord Wk-LZ	No	Force Off	Fixed
Offset Reference	Yellow	Use Ped Time	No
Ped Recall	No	Ped Reservice	No
Local Zero Override	Yes	FO Added Ini Green	No
Re-sync Count	0	Multisync	No

Auto Perm Minimum Green (Seconds) (MM) 3-4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Minimum Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Split Demand (MM) 3-5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Demand 1																
Demand 2																

Demand	1	2
Detector	0	0
Call Time (Sec)	0	0
Cycle Count	0	0

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Coordination Pattern Data
Coordinator Pattern Data (MM) 3-2

Coordinator Pattern # 1

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits In	Percent
Cycle	90	Std (COS)	9	Offsets In	Seconds
Offset Value	1s	Dwell/Add Time	29		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	1		
Max Select	None	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 1)	12	30	11	37	12	30	27	21	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	90%	90%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 2

Split Pattern	2	TS2 (Pat-Off)	0-2	Splits In	Percent
Cycle	80	Std (COS)	17	Offsets In	Seconds
Offset Value	73s	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	2		
Max Select	None	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 2)	15	18	12	35	11	22	22	25	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	80%	80%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0	
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0	

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 3

Split Pattern	3	TS2 (Pat-Off)	0-3	Splits In	Percent
Cycle	100	Std (COS)	25	Offsets In	Seconds
Offset Value	18s	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	3		
Max Select	None	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 3)	11	30	11	48	11	30	33	26	0	0	0	0	0	0	0	0

Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	100%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 4

Split Pattern	4	TS2 (Pat-Off)	1-1	Splits In	Percent
Cycle	75	Std (COS)	33	Offsets In	Seconds
Offset Value	0s	Dwell/Add Time	26		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	4		
Max Select	None	Force Off	Float		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 4)	9	22	9	35	9	22	30	14	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	75%	75%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0	
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0	

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Coordination Split Pattern
Split Pattern Data (MM) 3-3

Split Pattern # 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (percent)	12	30	11	37	12	30	27	21	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	90%	90%	0%	0%

Split Pattern # 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (percent)	15	18	12	35	11	22	22	25	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	80%	80%	0%	0%

Split Pattern # 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (percent)	11	30	11	48	11	30	33	26	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100%	100%	0%	0%

Split Pattern # 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (percent)	9	22	9	35	9	22	30	14	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	75%	75%	0%	0%

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Preempt Plan

Preempt Plan (MM) 4-1

Preempt Plan 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing																
Dwell Veh	X	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	4.0	1.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	0	0.0	120	4.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing																
Dwell Veh	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	**Ext Grn**	**Max Grn**	**Yellow**	**Red**
Track Clear	0	0	0	4.0	1.0
	Min Dwell	**Pmt Ext**	**Max Time**	**Yellow**	**Red**

Dwell / Cycle-Exit	0	0.0	120	4.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing																
Dwell Veh	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	**Ext Grn**	**Max Grn**	**Yellow**	**Red**
Track Clear	0	0	0	4.0	1.0
				Yellow	**Red**

	Min Dwell	Pmt Ext	Max Time		
Dwell / Cycle-Exit	0	0.0	120	4.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing																
Dwell Veh	.	.	X	.	.	.	.	X	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red

Track Clear	0	0	0	4.0	1.0
	Min Dwell	**Pmt Ext**	**Max Time**	**Yellow**	**Red**
Dwell / Cycle-Exit	0	0.0	120	4.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Preempt Preempt Filtering
Enable Preempt Filtering &
TSP/SCP (MM) 4-2

Input	Solid	Pulsing
1	...BYPASSED...	...BYPASSED...
2	...BYPASSED...	...BYPASSED...
3	PREEMPTION 3	PREEMPTION 7
4	PREEMPTION 4	PREEMPTION 8
5	PREEMPTION 5	PREEMPTION 9
6	PREEMPTION 6	PREEMPTION 10
7	...BYPASSED...	...BYPASSED...
8	...BYPASSED...	...BYPASSED...
9	...BYPASSED...	...BYPASSED...
10	...BYPASSED...	...BYPASSED...

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MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Preempt TSP/SCP Plan and Split

TSP / SCP Plan (MM) 4-3

TSP/SCP Plan	Enable Option	Signal Type	Det Lock	Delay Time	Max Presence	PMT Enables Reservice	No Delay in TSP	Action SF Inhibit	Reservice Cycles	Bus Heading
1	No	Solid	No	0	0	No	False	0	0	NB
2	No	Solid	No	0	0	No	False	0	0	SB
3	No	Solid	No	0	0	No	False	0	0	EB
4	No	Solid	No	0	0	No	False	0	0	WB
5	No	Solid	No	0	0	No	False	0	0	.
6	No	Solid	No	0	0	No	False	0	0	.

Mode: TSP
Free Default Pattern: 120
Headway Allowance: 0

TSP/SCP Plan	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

TSP / SCP Split Pattern (MM) 4-4

TSP/SCP Split Pattern	Max Type	Phase															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
4	Max Reduction	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255

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MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Time Base Clock/Calendar

Clock/Calendar Data (MM) 5-1

Manual Action Plan:	0
SYNC Reference Time:	00:00
SYNC Reference:	Reference Time
Day Light Savings:	No
Time Reset Input Set Time:	3:30:00
Standard Time From GMT:	0

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Time Base Action Plan
Action Plan (MM) 5-2

Action Plan - 1 - "1"

Pattern	1	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 2 - "2"

Pattern	2	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 3 - "3"

Pattern	3	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 4 - "4"

Pattern	4	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 10 - "NB arterial"

Pattern	Free	Override Sys	No
Timing Plan	4	Sequence	0
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 20 - "20"

Pattern	Free	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2	X	X	X	X	X	X	X	X								
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 21 - "21"

Pattern	Free	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Ext 2																
Veh Recall																
Max Recall						X										
Max 2	X	X	X	X	X	X	X	X								
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 30 - "30"

Pattern	Free	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall						X										
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Time Base Day Plan/Schedule
Day Plan (MM) 5-3

Day Plan #1 - "1"

Event	Action Plan	Start Time
1	20	05:30
2	1	06:00
3	20	07:30
4	1	08:10
5	2	09:00
6	3	15:00
7	2	18:30
8	30	21:00
9	21	23:59

Day Plan #2 - "2"

Event	Action Plan	Start Time
1	2	08:00
2	30	21:00
3	21	23:59

Schedule (MM) 5-4

Schedule Number - 1

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X	X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**
	X	X	X	X	X	X	X	X	X	X	X
	23	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 2

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X						X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**
	X	X	X	X	X	X	X	X	X	X	X
	23	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**		
	X	X	X	X	X	X	X	X	X		

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Time Base Exceptions

Exception Day Program (MM) 5-5

Excep Day	Float/Fixed	Mon/Mon	DOW/DOM	WOM/Year	Day Plan

Castle Rock, CO

ECONOLITE

MOVING TRAFFIC FORWARD

001 - Wolfensberger Rd @ Prairie Hawk Dr - Cobalt @ 10.50.60.60 - Econolite Type - Cobalt

Detectors

Detectors - Pg 1

Veh Det Phase Assignment (MM) 6-1

Vehicle Detector Plan Number - 1

Veh Detector	Assigned Phase	Called Phase	Type
1	1	2	S
2	2		S
3	3	4	S
4	4		S
5	5	6	S
6	6		S
7	7	8	S
8	8		S
12	4		S
14	6		S
30	2		S
50	6		S

Vehicle Detector Plan Number - 2

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	3		S
4	4		S
5	5		S
6	6		S
7	7		S
8	8		S
9	2		S
10	2		S
11	4		S
12	4		S
13	6		S
14	6		S
15	8		S
16	8		S
17	1		S
18	2		S
19	3		S
20	4		S
21	5		S

22	6		S
23	7		S
24	8		S
25	2		S
26	4		S
27	6		S
28	8		S

Vehicle Detector Plan Number - 3

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	3		S
4	4		S
5	5		S
6	6		S
7	7		S
8	8		S
9	2		S
10	2		S
11	4		S
12	4		S
13	6		S
14	6		S
15	8		S
16	8		S
17	1		S
18	2		S
19	3		S
20	4		S
21	5		S
22	6		S
23	7		S
24	8		S
25	2		S
26	4		S
27	6		S
28	8		S

Vehicle Detector Plan Number - 4

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	3		S
4	4		S
5	5		S
6	6		S
7	7		S
8	8		S
9	2		S
10	2		S

11	4		S
12	4		S
13	6		S
14	6		S
15	8		S
16	8		S
17	1		S
18	2		S
19	3		S
20	4		S
21	5		S
22	6		S
23	7		S
24	8		S
25	2		S
26	4		S
27	6		S
28	8		S

Vehicle Detector Setup (MM) 6-2

Veh Detector	Type	TS2 Detector	Description
1	S-STANDARD	Yes	WBL
2	S-STANDARD	Yes	EBT
3	S-STANDARD	Yes	NBL
4	S-STANDARD	Yes	SBT
5	S-STANDARD	Yes	EBL
6	S-STANDARD	Yes	WBT
7	S-STANDARD	Yes	SBL
8	S-STANDARD	Yes	NBT
9	S-STANDARD	Yes	
10	S-STANDARD	Yes	
11	S-STANDARD	Yes	
12	S-STANDARD	Yes	SBR
13	S-STANDARD	Yes	
14	S-STANDARD	Yes	WBR
15	S-STANDARD	Yes	
16	S-STANDARD	Yes	
17	S-STANDARD	Yes	
18	S-STANDARD	Yes	
19	S-STANDARD	Yes	
20	S-STANDARD	Yes	
21	S-STANDARD	Yes	EBL
22	S-STANDARD	Yes	
23	S-STANDARD	Yes	
24	S-STANDARD	Yes	EBT1
25	S-STANDARD	Yes	EBT2
26	S-STANDARD	Yes	
27	S-STANDARD	Yes	EBR
28	S-STANDARD	Yes	
29	S-STANDARD	Yes	EB Advance

30	S-STANDARD	Yes	Dilemma EB
31	S-STANDARD	Yes	SBL
32	S-STANDARD	Yes	
33	S-STANDARD	Yes	
34	S-STANDARD	Yes	SBT
35	S-STANDARD	Yes	
36	S-STANDARD	Yes	
37	S-STANDARD	Yes	SBR
38	S-STANDARD	Yes	
39	S-STANDARD	Yes	
40	S-STANDARD	Yes	
41	S-STANDARD	Yes	WBL
42	S-STANDARD	Yes	
43	S-STANDARD	Yes	
44	S-STANDARD	Yes	WBT
45	S-STANDARD	Yes	
46	S-STANDARD	Yes	
47	S-STANDARD	Yes	WBR
48	S-STANDARD	Yes	
49	S-STANDARD	Yes	WB Advance
50	S-STANDARD	Yes	
51	S-STANDARD	Yes	NBL
52	S-STANDARD	Yes	
53	S-STANDARD	Yes	
54	S-STANDARD	Yes	NBT
55	S-STANDARD	Yes	
56	S-STANDARD	Yes	
57	S-STANDARD	Yes	NBR
58	S-STANDARD	Yes	
59	S-STANDARD	Yes	
60	S-STANDARD	Yes	
61	S-STANDARD	Yes	
62	S-STANDARD	Yes	
63	S-STANDARD	Yes	
64	S-STANDARD	Yes	

Vehicle Detector Plan Number - 1

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
2	2	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
3	3	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
4	4	Yes	Yes	0.0	None	2.0	0	No	0	None	Yes	Yes	No
5	5	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
6	6	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
7	7	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
8	8	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
9	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No

10	0	No	Yes	5.0	Passage	0.0	0	No	0	None	No	No	No
11	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	4	Yes	Yes	8.0	Passage	0.0	0	No	0	None	Yes	Yes	No
13	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	6	Yes	Yes	8.0	Passage	0.0	0	No	0	None	Yes	Yes	No
15	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
18	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	0	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
21	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
22	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
23	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
24	0	Yes	Yes	0.0	None	0.0	0	No	0	None	Yes	Yes	No
25	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
26	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
27	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
28	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
29	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
30	2	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
31	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
34	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
37	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	Yes	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
44	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
47	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
49	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
50	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
54	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
57	0	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 2

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
21	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
25	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 3

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
21	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Castle Rock, CO

ECONOLITE CONTROL PRODUCTS, INC.

Solutions that Move the World™

035 - Plum Creek Pkwy @ Wilcox St - Cobalt @ 10.50.70.51 - Econolite Type - Cobalt

Configuration Controller Sequence

Phase Ring Sequence and Assignment (MM) 1-1-1

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B		B		B		B		B							
Sequence 1																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 2																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 3																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 4																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 5																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 6																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 7																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 8																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 9																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 10																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 11																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 12																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 13																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 14																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 15																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 16																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.

Phases In Use/Exclusive Ped (MM) 1-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use	X	X	X	X	X	X	X	X								

Exclusive Ped																

Phase Compatibility (MM) 1-1-2

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Approach	N	S	E	W	S	N	W	E	N	N	N	N	N	N	N	N
Movement	L	T	L	T	L	T	L	T								
Associated PED																
Overlap	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**
Approach	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Movement																

Administration (MM) 1-7-1

Enable Controller/Cabinet Interlock CRC	No
CRC (16 bit)	6507
Enable Automatic Backup to Datakey	No

Backup Prevent (MM) 1-1-3

Timing Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
6	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.
9	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
10	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

Simultaneous Gap (MM) 1-1-4

Phase Must Gap With Phase Disable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
6	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.
9	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
10	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
Disable	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MM) 1-3

	Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together
			Red	Yellow	Green	Dark		Red	Yellow	
1	1	V				-	Auto	X		
2	2	V				-	Auto	X		X
3	3	V				-	Auto	X		
4	4	V				-	Auto	X		X
5	5	V				+	Auto	X		
6	6	V				+	Auto	X		X
7	7	V				+	Auto	X		
8	8	V				+	Auto	X		X
9	2	P				-	Auto			
10	4	P				-	Auto			
11	6	P				+	Auto			
12	8	P				+	Auto			
13	1	O				-	Auto	X		
14	2	O				+	Auto	X		X
15	3	O				-	Auto	X		
16	4	O				+	Auto	X		X

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Solutions that Move the World™

035 - Plum Creek Pkwy @ Wilcox St - Cobalt @ 10.50.70.51 - Econolite Type - Cobalt

Configuration Port 1 (SDLC)

Port 1 SDLC (MM) 1-4-1

BIU	1	2	3	4	5	6	7	8
Term & Facility								
Detector Rack								

Enable TS2/MMU Type Cabinet: No
Enable MMU Extended Status: No
Enable SDLC Stop Time: No
Enable 3 Critical RFE's Lockup: Yes

MMU Program (MM) 1-4-2

Channel Can Serve With Channel	
Channel 1	**Channel 2**

Color Check Enable (MM) 1-4-3

Enable Color Check: No

MMU/LS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Green																
Yellow																
Red																

Secondary Stations/Tests (MM) 1-4-4

ID	1	2	3	4	5	6	7	8	MMU
Term & Facility									

ID	1	2	3	4	5	6	7	8	Diag
Detector Rack									

Enable SDLC Diagnostic Test: No

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Solutions that Move the World™

035 - Plum Creek Pkwy @ Wilcox St - Cobalt @ 10.50.70.51 - Econolite Type - Cobalt

Configuration Communications 1 (SDLC)

Ethernet Port Configuration (MM) 1-5-1

DHCP Enable: No
Controller IP: 10.50.70.51
Subnet Mask: 255.255.255.0
Default Gateway IP: 10.50.70.1
Server IP: 10.1.5.39

NTCIP (MM) 1-5-5

NTCIP Backup Time (Sec): 0
NTCIP UDP Port: 501
Ethernet Priority: 1
Port 2 Priority (Port C50S for 2070): 4
Port 3A Priority (Port C21S for 2070): 3
Port 3B Priority (Port C22S for 2070): 2

Port Configuration (MM) 1-5-2 to 1-5-4

Port	2 (C50S)	3A (C21S)	3B (C22S)
Comm Module	None	Auto	Auto
Protocol	NTCIP	NTCIP	NTCIP
Enable	No	No	No
Data Rate (BPS)	9600	9600	9600
Data, Parity, Stop	8 N 1	8 N 1	8 N 1
Address	0	0	0
Telemetry Response Delay	0.0	0.0	0.0
Duplex - Half or Full	Half	Full	Full
Flow Control	No	Yes	Yes
Group Address	0	0	0
Single Flag Enable	Yes	Yes	Yes
RTS to CTS Delay	n/a	n/a	0.0
RTS Turn Off Delay	n/a	n/a	0.0
Dropout Time	10	10	10
Early RTS	n/a	n/a	No
Telemetry Mode	n/a	n/a	FSK
ATCS Railroad	0	n/a	n/a
ATCS Railroad Line	0	n/a	n/a
ATCS Group	0	n/a	n/a
Wayside Device	0	n/a	n/a
ATC Device	0	n/a	n/a
Wayside Subnode	0	n/a	n/a
ATC Subnode	0	n/a	n/a

ECPIP (MM) 1-5-6

Controller Address: 0
Expanded System Detector Address: 0

System Detector Assignment

System Detector	Local Detector

Wireless Configuration (MM) 1-5-7

Wireless Channel Number: 1
Wireless Access Code: 327423274

Peer to Peer Setup (MM) 1-5-8

Local Port: 503

Peer	Port	IP Address	Timeout	Peer Name (Cobalt only)
1	503	10.50.70.50	1	PCP/Perry
2	503	10.50.70.52	1	PCP/PCB
3	503	10.50.70.54	1	PCP/I25NB
4	503	10.50.70.53	1	PCP/I25SB
5	503	10.50.60.30	1	Virtual 2

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Configuration Logging / Display

Event Logging (MM) 1-6-1

Critical RFE's (MMU/TF)	Yes	3 Critical Errors Within 24 Hours	Yes
MMU Flash Faults	Yes	Local Flash Fault	Yes
Non-Critical RFE's (Det/Test)	Yes	Detector Errors	Yes
Coordination Errors	Yes	Controller Download	Yes
Preemption Events	Yes	TSP Events	Yes
Power On/Off	Yes	Low Battery	Yes
Access	Yes	Data Change	Yes
Online / Offline	Yes		

Alarm Event	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable Logging	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Display Options (MM) 1-7-2

Key Click Enable:	Yes
Switch to Graphics Mode:	No
LED Mode:	Auto
Display Mode:	Advanced
Trans Mode Pop-Up Disable:	No

Sign On (MM) 8-5

Sign On Message Line 1: Plum Creek Pkwy & Wilcox Street
Sign On Message Line 2:

Software Modules (MM) 8-7

Application Version: 32.66.10
OS (Boot) Version: 06.07.00

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Logic Processor Page 1

Logic Statement Control (MM)
1-8-1

Logic #	Statement Control
1	E
2	E
3	D
18	D
21	D
22	D
23	D
24	D
25	D
30	E
31	E
32	E
33	E
34	E
35	E
36	E
51	E
52	E
53	E
54	E

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Logic Processor Page 2

Logic Statements (MM) 1-8-2

Logic #: 1 - "Stop Time"

If:

	Peer	T/F	Assignment	#	State
IF	--	F	LP COB CODE ON		520

Then:

Assignment	#	State
CTR SET STIME RING	1	On
CTR SET STIME RING	2	On

Logic #: 2 - "CTL ST"

If:

	Peer	T/F	Assignment	#	State
IF	--	F	LP CIB CODE ON		424

Then:

Assignment	#	State
CTR SET STIME ALL		On

Logic #: 3 - "Door Open"

If:

	Peer	T/F	Assignment	#	State
IF	--	F	LP CIB CODE ON		160

Then:

Assignment	#	State
CTR SET ALARM	1	On

Else:

Assignment	#	State
CTR SET ALARM	1	Off

Logic #: 11 - "LNG PED 2&6"

If:

	Peer	T/F	Assignment	#		State
IF	--	F	PED ON PH PED CLR	2	IS	On
OR	--	F	PED ON PH PED CLR	6	IS	On

Then:

Assignment	#	State
LP SET LOGIC FLAG	2	On

Logic #: 12 - "LNG Ped 2&6"

If:

	Peer	T/F	Assignment	#		State
IF	--	F	CTR PHASE TIMING	2	IS	Off
AND	--	F	CTR PHASE TIMING	6	IS	Off
AND	--	F	LP LOGIC FLAG	2	IS	On

Then:

Assignment	#	State
CRD SET FREE		On

Else:

Assignment	#	State
LP SET LOGIC FLAG	2	Off

Logic #: 13 - "LNG Ped 4&8"

If:

	Peer	T/F	Assignment	#		State
IF	--	F	PED ON PH PED CLR	4	IS	On
OR	--	F	PED ON PH PED CLR	8	IS	On

Then:

Assignment	#	State
LP SET LOGIC FLAG	4	On

Logic #: 14 - "LNG Ped 4&8"

If:

	Peer	T/F	Assignment	#		State
IF	--	F	CTR PHASE TIMING	2	IS	Off
AND	--	F	CTR PHASE TIMING	6	IS	Off
AND	--	F	LP LOGIC STATEMENT	4	IS	On

Then:

Assignment	#	State
CRD SET FREE		On

Else:

Assignment	#	State
LP SET LOGIC FLAG	4	Off

Logic #: 18 - "Vir2StpTim"

If:

	Peer	T/F	Assignment	#		State
IF	5	F	LP LOGIC FLAG	3	IS	On

Then:

Assignment	#	State
CTR SET STIME ALL		On
LP SET LOGIC FLAG	3	On

Else:

Assignment	#	State
LP SET LOGIC FLAG	3	Off

Logic #: 20 - "VirtStpTim"

If:

	Peer	T/F	Assignment	#		State
IF	5	F	CTR STOP TIME RING	1	IS	On
OR	5	F	CTR STOP TIME RING	2	IS	On

Then:

Assignment	#	State
CTR SET STIME ALL		On
LP SET LOGIC FLAG	3	On

Else:

Assignment	#	State
LP SET LOGIC FLAG	3	Off

Logic #: 21 - "PCB E/W stp"

If:

	Peer	T/F	Assignment	#		State
IF	2	F	LP LOGIC FLAG	3	IS	On
AND	2	F	VEH GREEN ON PH	5	IS	On
AND	--	F	VEH GREEN ON PH	4	IS	On
AND	--	F	VEH GREEN ON PH	8	IS	On

Then:

Assignment	#	State
CTR SET STIME ALL		On

Logic #: 22 - "PCB N/S stp"

If:

	Peer	T/F	Assignment	#		State
IF	2	F	LP LOGIC FLAG	3	IS	On
AND	2	F	VEH GREEN ON PH	6	IS	On
AND	--	F	VEH GREEN ON PH	2	IS	On
AND	--	F	VEH GREEN ON PH	6	IS	On

Then:

Assignment	#	State
CTR SET STIME ALL		On

Logic #: 23 - "PCP E/W stp2"

If:

	Peer	T/F	Assignment	#		State
IF	2	F	LP LOGIC FLAG	3	IS	On
AND	2	F	VEH GREEN ON PH	4	IS	On
AND	--	F	VEH GREEN ON PH	4	IS	On
AND	--	F	VEH GREEN ON PH	8	IS	On

Then:

Assignment	#	State
CTR SET STIME ALL		On

Logic #: 24 - "PCP Wstp"

If:

	Peer	T/F	Assignment	#		State
IF	3	F	LP LOGIC FLAG	6	IS	On
AND	3	F	VEH GREEN ON PH	6	IS	On
AND	--	F	VEH GREEN ON PH	4	IS	On
AND	--	F	VEH GREEN ON PH	8	IS	On

Then:

Assignment	#	State
CTR SET STIME ALL		On

Logic #: 25 - "Perry StpTim"

If:

	Peer	T/F	Assignment	#		State
IF	1	F	LP LOGIC FLAG	3	IS	On
OR	1	F	LP LOGIC FLAG	4	IS	On
AND	1	F	VEH GREEN ON PH	6	IS	On
AND	--	F	VEH GREEN ON PH	4	IS	On
AND	--	F	VEH GREEN ON PH	8	IS	On

Then:

Assignment	#	State
CTR SET STIME ALL		On

Logic #: 30 - "Call p2"

If:

	Assignment	#		State
IF	DET	1	IS	On
AND	LP COB CODE OFF			512

Then:

Assignment	#	State
DET SET VEH 1-16	3	On
LP SET LOGIC FLAG	16	On

Logic #: 31 - "P2 GAP CHK"

If:

	Assignment	#		State
IF	DET	2	IS	Off
AND	DET	10	IS	Off
AND	LP LOGIC FLAG	15	IS	Off
AND	VEH GREEN ON PH	2	IS	On
AND	LP COB CODE OFF			512

Then:

Assignment	#	State

Then:

Assignment	#	State
LP DELAY FOR	6.0 Sec.	
LP SET LOGIC FLAG	15	On

Logic #: 32 - "LF 16 on"

If:

	Assignment	#		State
IF	LP LOGIC FLAG	15	IS	Off
	VEH GREEN ON PH	2	IS	On

Then:

Assignment	#	State
LP SET LOGIC FLAG	16	On

Logic #: 33 - "LF 16 off"

If:

	Assignment	#		State
IF	LP LOGIC FLAG	15	IS	On
	VEH GREEN ON PH	2	IS	On

Then:

Assignment	#	State
LP SET LOGIC FLAG	16	Off

Logic #: 34 - "p2 nogap ck "

If:

	Assignment	#		State
IF	LP LOGIC FLAG	16	IS	On
AND	CTR ON PH FORC OFF	2	IS	On
AND	VEH YELLOW ON PH	2	IS	On

Then:

Assignment	#	State
LP SET LOGIC FLAG	8	On
LP SET LOGIC FLAG	16	Off

Logic #: 35 - "flg 8 & alrm"

If:

	Assignment	#		State
IF	LP LOGIC FLAG	8	IS	On

Then:

Assignment	#	State
CTR SET ALARM	8	On

Else:

Assignment	#	State
CTR SET ALARM	8	Off

Logic #: 36 - "LF P2 CLR"

If:

	Assignment	#		State
IF	VEH RED ON PHASE	2	IS	On

Then:

Assignment	#	State
LP SET LOGIC FLAG	8	Off
LP SET LOGIC FLAG	15	Off
LP SET LOGIC FLAG	16	Off

Logic #: 51 - "NB occup"

If:

	Assignment	#		State
IF	COORD PLAN		IS	2
OR	DET OCCUPANCY %	18	>	99
OR	DET OCCUPANCY %	1	>	99

Then:

Assignment	#	State
CTR SET ALARM	2	On

Else:

Assignment	#	State
CTR SET ALARM	2	Off

Logic #: 52 - "SB Occup"

If:

	Assignment	#		State
IF	COORD PLAN		IS	2
AND	DET OCCUPANCY %	2	>	99
OR	DET OCCUPANCY %	17	>	99

Then:

Assignment	#	State
CTR SET ALARM	4	On

Else:

Assignment	#	State
CTR SET ALARM	4	Off

Logic #: 53 - "EB occup"

If:

	Assignment	#		State
IF	COORD PLAN		IS	2
AND	DET OCCUPANCY %	6	>	99
OR	DET OCCUPANCY %	21	>	99

Then:

Assignment	#	State
CTR SET ALARM	3	On

Else:

Assignment	#	State
CTR SET ALARM	3	Off

Logic #: 54 - "WB occup"

If:

	Assignment	#		State
IF	COORD PLAN		IS	2
AND	DET OCCUPANCY %	5	>	99
OR	DET OCCUPANCY %	22	>	99

Then:

Assignment	#	State
CTR SET ALARM	5	On

Else:

Assignment	#	State
CTR SET ALARM	5	Off

Logic #: 100 - ""

If:

	Assignment	#		State
IF	LP LOGIC FLAG	15	IS	Off

Then:

Assignment	#	State
LP SET LOGIC FLAG	15	Off
LP SET LOGIC FLAG	8	Off

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Controller Timing Plan (MM) 2-1

Plan 1 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	5	10	5	10	5	10	10	10	0	0	0	0	0	0	0	0
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Walk	0	5	0	7	0	5	0	7	0	0	0	0	0	0	0	0
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	23	0	18	0	25	0	18	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	1.5	4.0	1.5	3.0	1.5	4.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	25	15	10	30	15	25	25	30	0	0	0	0	0	0	0	0
Max2	7	7	12	12	7	7	12	12	0	0	0	0	0	0	0	0
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Clear	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	3	10	3	10	3	10	3	10	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	1.5	4.0	1.5	3.0	1.5	4.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 2 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	5	10	5	10	5	10	6	10	0	0	0	0	0	0	0	0
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Walk	0	5	0	7	0	5	0	7	0	0	0	0	0	0	0	0
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	23	0	18	0	25	0	18	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	1.5	4.0	1.5	3.0	1.5	4.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	40	30	10	30	15	30	15	30	0	0	0	0	0	0	0	0
Max2	7	7	12	12	7	7	12	12	0	0	0	0	0	0	0	0
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Clear	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	3	10	3	10	3	10	3	10	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	1.5	4.0	1.5	3.0	1.5	4.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 3 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	5	10	5	10	5	10	6	10	0	0	0	0	0	0	0	0
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Walk	0	5	0	7	0	5	0	7	0	0	0	0	0	0	0	0
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	23	0	18	0	25	0	18	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	1.5	4.0	1.5	3.0	1.5	4.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	25	15	10	30	15	25	25	30	0	0	0	0	0	0	0	0
Max2	7	7	12	12	7	7	12	12	0	0	0	0	0	0	0	0
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Clear	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	3	10	3	10	3	10	3	10	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	1.5	4.0	1.5	3.0	1.5	4.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 4 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	3	10	3	10	3	10	3	10	0	0	0	0	0	0	0	0
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Walk	0	8	0	7	0	8	0	7	0	0	0	0	0	0	0	0
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	27	0	20	0	27	0	22	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	1.5	4.0	1.5	3.0	1.5	4.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	25	15	10	90	15	25	15	90	0	0	0	0	0	0	0	0
Max2	7	7	12	12	7	7	12	12	0	0	0	0	0	0	0	0
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Clear	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	3	10	3	10	3	10	3	10	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	1.5	4.0	1.5	3.0	1.5	4.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Controller Overlaps

Vehicle Overlaps (MM) 2-2

Overlap	Type	Lag Green	Yellow	Red	Adv. Green

Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable
A	1	2	Yellow Ped	9	0.0	0.0	1	No
B	3	4	Yellow Ped	10	0.0	0.0	2	No
C	5	6	Yellow Ped	11	0.0	0.0	3	No
D	7	8	Yellow Ped	12	0.0	0.0	4	No

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	3	0	7	3.0	0.0	5
B02	3	0	7	3.0	0.0	5
C03	3	0	7	3.0	0.0	5
D04	3	0	7	3.0	0.0	5
E05	3	0	7	3.0	0.0	5
F06	3	0	7	3.0	0.0	5
G07	3	0	7	3.0	0.0	5
H08	3	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5
O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5

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Controller Pedestrian Overlaps
Vehicle / Pedestrian Overlaps (MM) 2-3

Included	Pedestrian Overlaps

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Controller Start / Flash Data (MM) 2-5

Start Up

Phase	Phase Setting
1	.
2	.
3	.
4	Y
5	.
6	.
7	.
8	Y
9	.
10	.
11	.
12	.
13	.
14	.
15	.
16	.

Overlap
A
B
C
D

Flash Thru Mon: No
Flash Time: 0
All Red: 6
Power Start Seq: 1
MUTCD Enabled: No
Y->G: n/a

Automatic Flash

Entry
4
8

Exit
4
8

Overlap Exit
A
B
C
D

Flash Thru Mon: No
Exit Flash: W
Minimum Flash: 8
Mimimum Recall: No
Cycle Through Phase: No

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Controller Options

Controller Options (MM) 2-6-1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Grn Ph	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Guar Passage																
Non-Act I				X				X								
Non-Act II		X				X										
Dual Entry		X		X		X		X								
Cond Service																
Cond Reservice																
Ped Re-Service																
Rest In Walk																
Flashing Walk																
Ped Clr-Yel																
Ped Clr-Red																
IGRN + Veh Ext																

Ped Clear Protect: Off Unit Red Revert: 2.0 MUTCD 3 Seconds Don't Walk: No

Pre-Timed Mode (MM) 2-7

Enable Pre-Timed Mode: No Free Input Disables Pre-Timed: No

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre-Timed																

Phase Recall Options (MM) 2-8

Plan # 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall				X				X								
Ped Recall																
Max Recall																
Soft Recall																
No Rest																
Al Calc																

Plan # 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall				X				X								
Ped Recall																
Max Recall																
Soft Recall																
No Rest																
Al Calc																

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Coordination Options

Options (MM) 3-1

Manual Pattern	Auto	ECPI Coord	Yes
System Source	SYS	System Format	PTN
Splits In	Seconds	Offsets In	Seconds
Transition	Smooth	Max Select	MAXINH
Dwell / Add Time	0		
Delay Coord Wk-LZ	No	Force Off	Fixed
Offset Reference	Yellow	Use Ped Time	No
Ped Recall	No	Ped Reservice	No
Local Zero Override	Yes	FO Added Ini Green	No
Re-sync Count	0	Multisync	No

Auto Perm Minimum Green (Seconds) (MM) 3-4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Minimum Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Split Demand (MM) 3-5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Demand 1																
Demand 2																

Demand	1	2
Detector	0	0
Call Time (Sec)	0	0
Cycle Count	0	0

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Coordination Pattern Data
Coordinator Pattern Data (MM) 3-2

Coordinator Pattern # 1

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits In	Seconds
Cycle	90	Std (COS)	9	Offsets In	Seconds
Offset Value	32s	Dwell/Add Time	3		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	1		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 1)	26	13	9	40	11	28	14	37	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	88s	90s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 2

Split Pattern	2	TS2 (Pat-Off)	0-2	Splits In	Seconds
Cycle	90	Std (COS)	17	Offsets In	Seconds
Offset Value	34s	Dwell/Add Time	31		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	2		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 2)	26	18	11	35	15	29	18	28	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	90s	90s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 3

Split Pattern	3	TS2 (Pat-Off)	0-3	Splits In	Seconds
Cycle	100	Std (COS)	25	Offsets In	Seconds
Offset Value	69s	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	3		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 3)	26	17	15	42	18	25	20	37	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100s	100s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 4

Split Pattern	4	TS2 (Pat-Off)	1-1	Splits In	Seconds
Cycle	100	Std (COS)	33	Offsets In	Seconds
Offset Value	69s	Dwell/Add Time	33		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	4		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 4)	24	17	10	49	18	18	18	46	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100s	100s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 5

Split Pattern	5	TS2 (Pat-Off)	1-2	Splits In	Seconds
Cycle	120	Std (COS)	41	Offsets In	Seconds
Offset Value	83s	Dwell/Add Time	41		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	5		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 5)	23	22	13	62	23	22	13	62	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	120s	120s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 6

Split Pattern	6	TS2 (Pat-Off)	1-3	Splits In	Seconds
Cycle	120	Std (COS)	73	Offsets In	Seconds
Offset Value	43s	Dwell/Add Time	41		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	6		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 6)	29	23	15	53	10	37	15	58	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	120s	120s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 7

Split Pattern	7	TS2 (Pat-Off)	2-1	Splits In	Seconds
Cycle	100	Std (COS)	81	Offsets In	Seconds
Offset Value	32s	Dwell/Add Time	3		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 7)	26	12	12	50	10	28	15	47	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100s	100s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 11

Split Pattern	11	TS2 (Pat-Off)	3-2	Splits In	Seconds
Cycle	120	Std (COS)	137	Offsets In	Seconds
Offset Value	34s	Dwell/Add Time	40		
Actuated Coord	Yes	Timing Plan	3		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 11)	41	18	16	45	16	43	16	45	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	120s	120s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 13

Split Pattern	13	TS2 (Pat-Off)	4-1	Splits In	Seconds
Cycle	150	Std (COS)	153	Offsets In	Seconds
Offset Value	69s	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 13)	50	24	17	59	18	46	17	59	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	150s	140s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

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Coordination Split Pattern

Split Pattern Data (MM) 3-3

Split Pattern # 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	26	13	9	40	11	28	14	37	0	0	0	0	0	0	0	0
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	88s	90s	0s	0s

Split Pattern # 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	26	18	11	35	15	29	18	28	0	0	0	0	0	0	0	0
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	90s	90s	0s	0s

Split Pattern # 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	26	17	15	42	18	25	20	37	0	0	0	0	0	0	0	0
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100s	100s	0s	0s

Split Pattern # 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	24	17	10	49	18	18	18	46	0	0	0	0	0	0	0	0
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100s	100s	0s	0s

Split Pattern # 5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	23	22	13	62	23	22	13	62	0	0	0	0	0	0	0	0
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	120s	120s	0s	0s

Split Pattern # 6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	29	23	15	53	10	37	15	58	0	0	0	0	0	0	0	0
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	120s	120s	0s	0s

Split Pattern # 7

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	26	12	12	50	10	28	15	47	0	0	0	0	0	0	0	0
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100s	100s	0s	0s

Split Pattern # 11

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	41	18	16	45	16	43	16	45	0	0	0	0	0	0	0	0
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	120s	120s	0s	0s

Split Pattern # 13

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	50	24	17	59	18	46	17	59	0	0	0	0	0	0	0	0
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	150s	140s	0s	0s

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Preempt Plan

Preempt Plan (MM) 4-1

Preempt Plan 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing																
Dwell Veh	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	4.0	1.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	0	0.0	120	3.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing																
Dwell Veh	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	**Ext Grn**	**Max Grn**	**Yellow**	**Red**
Track Clear	0	0	0	4.0	1.0
	Min Dwell	**Pmt Ext**	**Max Time**	**Yellow**	**Red**
Dwell / Cycle-Exit	0	0.0	120	3.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing																
Dwell Veh	X	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	**Ext Grn**	**Max Grn**	**Yellow**	**Red**
Track Clear	0	0	0	4.0	1.0
	Min Dwell	**Pmt Ext**	**Max Time**	**Yellow**	**Red**
Dwell / Cycle-Exit	0	0.0	120	3.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off

Conditional Delay	Off

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing																
Dwell Veh	.	.	X	.	.	.	.	X	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	**Ext Grn**	**Max Grn**	**Yellow**	**Red**
Track Clear	0	0	0	4.0	1.0
	Min Dwell	**Pmt Ext**	**Max Time**	**Yellow**	**Red**
Dwell / Cycle-Exit	0	0.0	120	3.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Preempt Preempt Filtering
Enable Preempt Filtering & TSP/SCP
(MM) 4-2

Input	Solid	Pulsing
1	...BYPASSED...	...BYPASSED...
2	...BYPASSED...	...BYPASSED...
3	PREEMPTION 3	PREEMPTION 7
4	PREEMPTION 4	PREEMPTION 8
5	PREEMPTION 5	PREEMPTION 9
6	PREEMPTION 6	PREEMPTION 10
7	...BYPASSED...	...BYPASSED...
8	...BYPASSED...	...BYPASSED...
9	...BYPASSED...	...BYPASSED...
10	...BYPASSED...	...BYPASSED...

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Preempt TSP/SCP Plan and Split

TSP / SCP Plan (MM) 4-3

TSP/SCP Plan	Enable Option	Signal Type	Det Lock	Delay Time	Max Presence	PMT Enables Reservice	No Delay in TSP	Action SF Inhibit	Reservice Cycles	Bus Heading
1	No	Solid	No	0	0	No	False	0	0	NB
2	No	Solid	No	0	0	No	False	0	0	SB
3	No	Solid	No	0	0	No	False	0	0	EB
4	No	Solid	No	0	0	No	False	0	0	WB
5	No	Solid	No	0	0	No	False	0	0	.
6	No	Solid	No	0	0	No	False	0	0	.

Mode: TSP
Free Default Pattern: 120
Headway Allowance: 0

TSP/SCP Plan	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

TSP / SCP Split Pattern (MM) 4-4

TSP/SCP Split Pattern	Max Type	Phase															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
4	Max Reduction	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255

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Time Base Clock/Calendar
Clock/Calendar Data (MM) 5-1

Manual Action Plan:	0
SYNC Reference Time:	00:00
SYNC Reference:	Reference Time
Day Light Savings:	No
Time Reset Input Set Time:	3:30:00
Standard Time From GMT:	0

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Time Base Action Plan
Action Plan (MM) 5-2

Action Plan - 1 - "1"

Pattern	1	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 2 - "2"

Pattern	2	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 3 - "3"

Pattern	3	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 4 - "4"

Pattern	4	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 5 - "5"

Pattern	5	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)	X		X													
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 6 - "6"

Pattern	6	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)	X		X													
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 7 - "AM peak"

Pattern	7	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 10 - "NB arterial"

Pattern	Free	Override Sys	No
Timing Plan	4	Sequence	0
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 11 - "star exit"

Pattern	11	Override Sys	No
Timing Plan	3	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 13 - "13"

Pattern	13	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	1	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 20 - "20"

Pattern	Free	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 21 - "21"

Pattern	Free	Override Sys	No
Timing Plan	2	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	1	Ped Det Diag Plan	1
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2	X	X	X	X	X	X	X	X								
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 22 - "22"

Pattern	Free	Override Sys	No
Timing Plan	2	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)	X		X													
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 30 - "30"

Pattern	Free	Override Sys	No
Timing Plan	2	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Castle Rock, CO



035 - Plum Creek Pkwy @ Wilcox St - Cobalt @ 10.50.70.51 - Econolite Type - Cobalt

Time Base Day Plan/Schedule
Day Plan (MM) 5-3

Day Plan #1 - "1"

Event	Action Plan	Start Time
1	20	04:30
2	1	05:30
3	7	07:00
4	2	09:00
5	3	15:00
6	2	19:00
7	30	21:00
8	21	23:59

Day Plan #2 - "2"

Event	Action Plan	Start Time
1	20	05:30
2	2	07:00
3	30	21:00
4	21	23:59
5	1	10:00
6	2	14:30

Day Plan #3 - "I25 Nt close"

Event	Action Plan	Start Time
1	1	05:30
2	2	09:00
3	3	15:00
4	2	19:00
5	30	20:00

Day Plan #5 - "5"

Event	Action Plan	Start Time
1	2	05:00
2	30	21:00
3	21	23:59
4	1	09:30
5	2	16:00

Day Plan #6 - "Starlight"

Event	Action Plan	Start Time
1	20	05:30
2	2	07:00
3	1	10:00
4	2	19:00
5	30	21:00
6	21	23:59

Day Plan #7 - "R Fair"

Event	Action Plan	Start Time
1	20	04:30
2	1	05:30
3	2	09:00

4	3	15:00
5	1	19:00
6	30	22:30
7	21	23:59

Day Plan #8 - "F Fair"

Event	Action Plan	Start Time
1	20	04:30
2	1	05:30
3	2	09:00
4	3	15:00
5	2	19:00
6	1	21:00
7	21	23:59

Day Plan #9 - "Sat Fair"

Event	Action Plan	Start Time
1	20	05:30
2	2	07:00
3	1	11:00
4	2	14:30
5	1	21:30
6	21	23:59

Schedule (MM) 5-4

Schedule Number - 1

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X	X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 2

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X						X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 5

Day Plan No.: 5

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	12	13	14	15	16	17	18	19	20	21	22
	23	24	25	26	27	28	29	30	31		

Schedule Number - 6

Day Plan No.: 6

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	12	13	14	15	16	17	18	19	20	21	22
	23	24	25	26	27	28	29	30	31		

Castle Rock, CO



035 - Plum Creek Pkwy @ Wilcox St - Cobalt @ 10.50.70.51 - Econolite Type - Cobalt

Time Base Exceptions
Exception Day Program (MM) 5-5

Excep Day	Float/Fixed	Mon/Mon	DOW/DOM	WOM/Year	Day Plan
1	FLOAT	6	1	1	5
2	FIXED	11	21	2020	6
3	FIXED	6	10	2019	3
4	FIXED	6	11	2019	3
5	FIXED	8	1	2019	7
6	FIXED	8	2	2019	8
7	FIXED	8	3	2019	9

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ECONOLITE CONTROL PRODUCTS, INC.
Solutions that Move the World™

035 - Plum Creek Pkwy @ Wilcox St - Cobalt @ 10.50.70.51 - Econolite Type - Cobalt

Detectors

Detectors - Pg 1

Veh Det Phase Assignment (MM) 6-1

Vehicle Detector Plan Number - 1

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	2		S
4	6		S
5	3	4	S
6	4		S
7	4		S
8	4		S
11	1	2	S
17	5	6	S
18	6		S
19	8		S
20	8		S
21	7	8	S
22	8		S
23	8		S
24	8		S
25	5	6	S
26	6		S
27	3	4	S
29	7	8	S
30	8		S
31	8		S
58	2		S

Vehicle Detector Plan Number - 2

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	2		S
4	2		S
5	3		S
6	4		S
7	4		S
8	4		S
9	2		S
10	2		S
11	4		S
12	4		S
13	6		S
14	6		S
15	8		S
16	8		S
17	5		S
18	6		S
19	6		S
20	6		S
21	7		S
22	8		S
23	8		S
24	8		S
25	2		S

26	4		S
27	6		S
28	8		S

Vehicle Detector Plan Number - 3

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	2		S
4	2		S
5	3		S
6	4		S
7	4		S
8	4		S
9	2		S
10	2		S
11	4		S
12	4		S
13	6		S
14	6		S
15	8		S
16	8		S
17	5		S
18	6		S
19	6		S
20	6		S
21	7		S
22	8		S
23	8		S
24	8		S
25	2		S
26	4		S
27	6		S
28	8		S

Vehicle Detector Plan Number - 4

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	2		S
4	2		S
5	3		S
6	4		S
7	4		S
8	4		S
9	2		S
10	2		S
11	4		S
12	4		S
13	6		S
14	6		S
15	8		S
16	8		S
17	5		S
18	6		S
19	6		S
20	6		S
21	7		S
22	8		S
23	8		S
24	8		S
25	2		S
26	4		S
27	6		S
28	8		S

Vehicle Detector Setup (MM) 6-2

Veh Detector	Type	TS2 Detector	Description

1	S-STANDARD	Yes	
2	S-STANDARD	Yes	
3	S-STANDARD	Yes	
4	S-STANDARD	Yes	
5	S-STANDARD	Yes	
6	S-STANDARD	Yes	
7	S-STANDARD	Yes	
8	S-STANDARD	Yes	
9	S-STANDARD	Yes	
10	S-STANDARD	Yes	
11	S-STANDARD	Yes	
12	S-STANDARD	Yes	
13	S-STANDARD	Yes	
14	S-STANDARD	Yes	
15	S-STANDARD	Yes	
16	S-STANDARD	Yes	
17	S-STANDARD	Yes	
18	S-STANDARD	Yes	
19	S-STANDARD	Yes	
20	S-STANDARD	Yes	
21	S-STANDARD	Yes	
22	S-STANDARD	Yes	
23	S-STANDARD	Yes	
24	S-STANDARD	Yes	
25	S-STANDARD	Yes	
26	S-STANDARD	Yes	
27	S-STANDARD	Yes	
28	S-STANDARD	Yes	
29	S-STANDARD	Yes	
30	S-STANDARD	Yes	
31	S-STANDARD	Yes	
32	S-STANDARD	Yes	
33	S-STANDARD	Yes	
34	S-STANDARD	Yes	
35	S-STANDARD	Yes	
36	S-STANDARD	Yes	
37	S-STANDARD	Yes	
38	S-STANDARD	Yes	
39	S-STANDARD	Yes	
40	S-STANDARD	Yes	
41	S-STANDARD	Yes	
42	S-STANDARD	Yes	
43	S-STANDARD	Yes	
44	S-STANDARD	Yes	
45	S-STANDARD	Yes	
46	S-STANDARD	Yes	
47	S-STANDARD	Yes	
48	S-STANDARD	Yes	
49	S-STANDARD	Yes	
50	S-STANDARD	Yes	
51	S-STANDARD	Yes	
52	S-STANDARD	Yes	
53	S-STANDARD	Yes	
54	S-STANDARD	Yes	
55	S-STANDARD	Yes	
56	S-STANDARD	Yes	
57	S-STANDARD	Yes	
58	S-STANDARD	Yes	
59	S-STANDARD	Yes	
60	S-STANDARD	Yes	
61	S-STANDARD	Yes	
62	S-STANDARD	Yes	
63	S-STANDARD	Yes	
64	S-STANDARD	Yes	

Vehicle Detector Plan Number - 1

	Phase												

Veh Detector		ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
3	2	No	Yes	4.0	Passage	0.0	0	No	0	None	Yes	Yes	No
4	6	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
5	3	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
6	4	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
7	4	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
8	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
9	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
11	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	0	No	Yes	3.0	Passage	0.0	0	No	0	None	No	No	No
14	0	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
15	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	5	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
18	6	Yes	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
19	8	No	Yes	4.0	Passage	0.0	0	No	0	None	Yes	Yes	No
20	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
21	7	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
22	8	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
23	8	No	Yes	4.0	Passage	0.0	0	No	0	None	Yes	Yes	No
24	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
25	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	6	No	Yes	4.0	Passage	0.0	0	No	0	None	Yes	Yes	No
27	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	7	No	Yes	3.0	Passage	0.0	0	No	0	None	No	No	No
30	8	No	Yes	4.0	Passage	0.0	0	No	0	None	Yes	Yes	No
31	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 2

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	2	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
5	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
9	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	6	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
21	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
25	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 3

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	2	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
5	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
9	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	6	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
21	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
25	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 4

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	2	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
5	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
9	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	6	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
21	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
25	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Ped Detector Phase Assignment (MM) 6-3

Mode: Econolite

Ped Detector Number	Called Phase															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.
5	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
6	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.
9	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
10	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.
11	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.
12	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.
13	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.
14	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.
15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.
16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X

Castle Rock, CO

ECONOLITE CONTROL PRODUCTS, INC.
Solutions that Move the World™

035 - Plum Creek Pkwy @ Wilcox St - Cobalt @ 10.50.70.51 - Econolite Type - Cobalt

Detectors

Detectors - Pg 2

Log - Speed Detector Setup (MM) 6-4
NTCIP Log Period: 60 ECPI Log Period: 0 Length Unit: Inches

Speed Detector	Local Detector	One/Two Detector	Vehicle Length	Trap length	Enable Log
1	0	1	0	0	No
2	0	1	0	0	No
3	0	1	0	0	No
4	0	1	0	0	No
5	0	1	0	0	No
6	0	1	0	0	No
7	0	1	0	0	No
8	0	1	0	0	No
9	0	1	0	0	No
10	0	1	0	0	No
11	0	1	0	0	No
12	0	1	0	0	No
13	0	1	0	0	No
14	0	1	0	0	No
15	0	1	0	0	No
16	0	1	0	0	No

Vehicle Detector Diagnostics (MM) 6-5

Veh Diagnostic Plan Number - 1

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay
1	0	0	60	1	255	0
2	0	0	60	1	255	0
5	0	0	60	1	255	0
6	0	0	60	1	255	0
17	0	0	60	1	255	0
18	0	0	60	1	255	0
21	0	0	60	1	255	0
22	0	0	60	1	255	0
30	0	0	22	15	255	0

Veh Diagnostic Plan Number - 2

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Veh Diagnostic Plan Number - 3

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Veh Diagnostic Plan Number - 4

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Pedestrian Detector Diagnostics (MM) 6-6

Ped Diagnostic Plan Number - 1

Det	Counts	Act	Pres	Multiplier
2	0	168	1	60

4	0	168	1	60
6	0	168	1	60
8	0	168	1	60

Ped Diagnostic Plan Number - 2

Det	Counts	Act	Pres	Multiplier

Ped Diagnostic Plan Number - 3

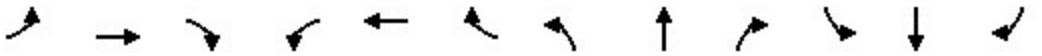
Det	Counts	Act	Pres	Multiplier

Ped Diagnostic Plan Number - 4

Det	Counts	Act	Pres	Multiplier

APPENDIX “C”

INTERSECTION CAPACITY ANALYSIS WORKSHEETS



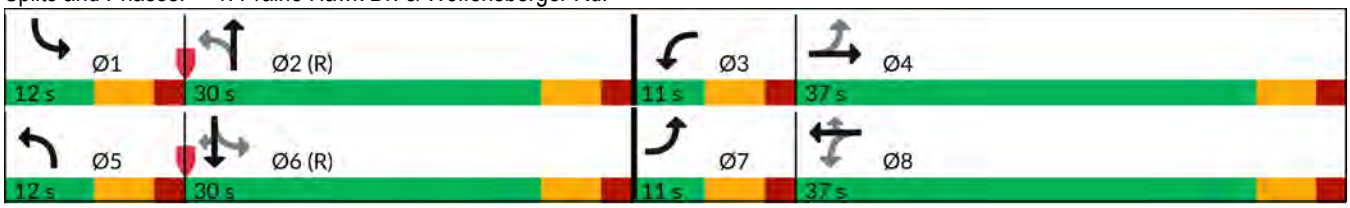
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		325	125		100	225		0	350		350
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.993				0.850		0.875				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3514	0	1770	3539	1583	1770	1630	0	1770	1863	1583
Flt Permitted	0.624			0.344			0.734			0.581		
Satd. Flow (perm)	1162	3514	0	641	3539	1583	1367	1630	0	1082	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6				182		86				182
Link Speed (mph)		40			40			30			45	
Link Distance (ft)		922			1021			638			586	
Travel Time (s)		15.7			17.4			14.5			8.9	

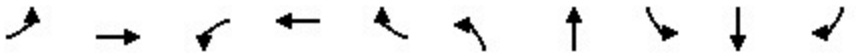
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	80	391	124	188	159	4	16	204	32	38
Future Volume (vph)	80	391	124	188	159	4	16	204	32	38
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases	4		8		8	2		6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	38.0	11.0	40.0	40.0	11.0	33.0	11.0	32.0	32.0
Total Split (s)	11.0	37.0	11.0	37.0	37.0	12.0	30.0	12.0	30.0	30.0
Total Split (%)	12.2%	41.1%	12.2%	41.1%	41.1%	13.3%	33.3%	13.3%	33.3%	33.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	21.8	16.8	23.0	19.0	19.0	38.6	32.9	50.2	47.8	47.8
Actuated g/C Ratio	0.24	0.19	0.26	0.21	0.21	0.43	0.37	0.56	0.53	0.53
v/c Ratio	0.28	0.67	0.60	0.27	0.36	0.01	0.16	0.32	0.04	0.04
Control Delay (s/veh)	24.3	38.5	35.6	30.9	6.5	11.8	8.2	12.3	13.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.3	38.5	35.6	30.9	6.5	11.8	8.2	12.3	13.5	0.1
LOS	C	D	D	C	A	B	A	B	B	A
Approach Delay (s/veh)		36.2		23.9			8.3		10.8	
Approach LOS		D		C			A		B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 1 (1%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay (s/veh): 24.6	Intersection LOS: C
Intersection Capacity Utilization 51.2%	ICU Level of Service A
Analysis Period (min) 15	

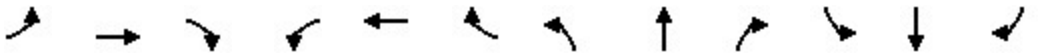
Splits and Phases: 1: Prairie Hawk Dr. & Wolfensberger Rd.





Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	87	445	135	204	173	4	103	222	35	41
v/c Ratio	0.28	0.67	0.60	0.27	0.36	0.01	0.16	0.32	0.04	0.04
Control Delay (s/veh)	24.3	38.5	35.6	30.9	6.5	11.8	8.2	12.3	13.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.3	38.5	35.6	30.9	6.5	11.8	8.2	12.3	13.5	0.1
Queue Length 50th (ft)	36	123	57	53	0	1	6	59	8	0
Queue Length 95th (ft)	65	162	94	79	45	6	45	113	32	0
Internal Link Dist (ft)		842		941			558		506	
Turn Bay Length (ft)	325		125		100	225		350		350
Base Capacity (vph)	315	1214	226	1218	664	618	650	689	989	926
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.37	0.60	0.17	0.26	0.01	0.16	0.32	0.04	0.04

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	391	18	124	188	159	4	16	79	204	32	38
Future Volume (veh/h)	80	391	18	124	188	159	4	16	79	204	32	38
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	87	425	20	135	204	173	4	17	86	222	35	41
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	293	569	27	224	587	262	680	120	606	727	950	805
Arrive On Green	0.06	0.16	0.16	0.06	0.17	0.17	0.01	0.45	0.45	0.07	0.51	0.51
Sat Flow, veh/h	1781	3456	162	1781	3554	1585	1781	268	1358	1781	1870	1585
Grp Volume(v), veh/h	87	218	227	135	204	173	4	0	103	222	35	41
Grp Sat Flow(s),veh/h/ln	1781	1777	1841	1781	1777	1585	1781	0	1626	1781	1870	1585
Q Serve(g_s), s	3.6	10.5	10.6	5.0	4.6	9.2	0.1	0.0	3.4	6.0	0.8	1.2
Cycle Q Clear(g_c), s	3.6	10.5	10.6	5.0	4.6	9.2	0.1	0.0	3.4	6.0	0.8	1.2
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.83	1.00		1.00
Lane Grp Cap(c), veh/h	293	293	303	224	587	262	680	0	726	727	950	805
V/C Ratio(X)	0.30	0.74	0.75	0.60	0.35	0.66	0.01	0.00	0.14	0.31	0.04	0.05
Avail Cap(c_a), veh/h	294	612	634	224	1224	546	789	0	726	727	950	805
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	35.8	35.8	31.6	33.3	35.2	13.6	0.0	14.7	11.5	11.1	11.2
Incr Delay (d2), s/veh	0.6	3.8	3.7	4.5	0.4	2.8	0.0	0.0	0.4	0.2	0.1	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	4.7	4.9	2.6	1.9	3.6	0.0	0.0	1.3	2.1	0.3	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.5	39.5	39.5	36.1	33.6	38.1	13.6	0.0	15.1	11.8	11.2	11.3
LnGrp LOS	C	D	D	D	C	D	B		B	B	B	B
Approach Vol, veh/h		532			512			107			298	
Approach Delay, s/veh		37.9			35.8			15.1			11.6	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	46.2	11.0	20.8	6.5	51.7	11.0	20.9
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	6.0	24.0	5.0	31.0	6.0	24.0	5.0	31.0
Max Q Clear Time (g_c+I1), s	8.0	5.4	7.0	12.6	2.1	3.2	5.6	11.2
Green Ext Time (p_c), s	0.0	0.5	0.0	2.3	0.0	0.2	0.0	1.7

Intersection Summary	
HCM 7th Control Delay, s/veh	30.1
HCM 7th LOS	C

Notes

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



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.946	
Flt Protected	0.950			0.999		
Satd. Flow (prot)	1770	0	0	1861	1762	0
Flt Permitted	0.950			0.999		
Satd. Flow (perm)	1770	0	0	1861	1762	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	671			479	638	
Travel Time (s)	15.3			10.9	14.5	

Intersection Summary	
Area Type:	Other

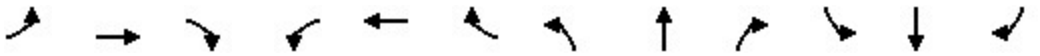
Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	42	0	1	44	96	64
Future Vol, veh/h	42	0	1	44	96	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	0	1	48	104	70

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	189	139	174	0	-	0
Stage 1	139	-	-	-	-	-
Stage 2	50	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	800	909	1403	-	-	-
Stage 1	888	-	-	-	-	-
Stage 2	972	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	799	909	1403	-	-	-
Mov Cap-2 Maneuver	799	-	-	-	-	-
Stage 1	887	-	-	-	-	-
Stage 2	972	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.78	0.17	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	40	-	799	-	-
HCM Lane V/C Ratio	0.001	-	0.057	-	-
HCM Control Delay (s/veh)	7.6	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.865						0.883	
Flt Protected		0.954						0.980			0.995	
Satd. Flow (prot)	0	1772	0	0	1611	0	0	1825	0	0	1637	0
Flt Permitted		0.954						0.980			0.995	
Satd. Flow (perm)	0	1772	0	0	1611	0	0	1825	0	0	1637	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		479			909			1975			245	
Travel Time (s)		10.9			20.7			44.9			5.6	

Intersection Summary	
Area Type:	Other

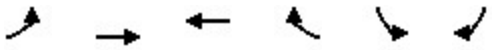
Intersection	
Int Delay, s/veh	7.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	0	1	0	0	8	2	3	0	8	3	74
Future Vol, veh/h	35	0	1	0	0	8	2	3	0	8	3	74
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	38	0	1	0	0	9	2	3	0	9	3	80

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	9	0	0	1	0	0	78	85	1	82	82	4
Stage 1	-	-	-	-	-	-	77	77	-	4	4	-
Stage 2	-	-	-	-	-	-	2	9	-	78	77	-
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	1611	-	-	1622	-	-	911	805	1084	905	809	1079
Stage 1	-	-	-	-	-	-	932	831	-	1018	892	-
Stage 2	-	-	-	-	-	-	1021	888	-	931	831	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1611	-	-	1622	-	-	819	786	1084	880	790	1079
Mov Cap-2 Maneuver	-	-	-	-	-	-	819	786	-	880	790	-
Stage 1	-	-	-	-	-	-	910	812	-	1018	892	-
Stage 2	-	-	-	-	-	-	942	888	-	905	811	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	7.09	0	9.54	8.79
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	799	1458	-	-	1622	-	-	1043
HCM Lane V/C Ratio	0.007	0.024	-	-	-	-	-	0.089
HCM Control Delay (s/veh)	9.5	7.3	0	-	0	-	-	8.8
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.3



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.995		0.865	
Flt Protected		0.993				
Satd. Flow (prot)	0	1850	1853	0	1611	0
Flt Permitted		0.993				
Satd. Flow (perm)	0	1850	1853	0	1611	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		340	1975		832	
Travel Time (s)		7.7	44.9		18.9	

Intersection Summary	
Area Type:	Other

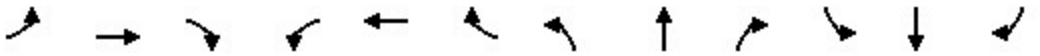
Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	11	24	1	0	5
Future Vol, veh/h	2	11	24	1	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	12	26	1	0	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	27	0	-	0	43	27
Stage 1	-	-	-	-	27	-
Stage 2	-	-	-	-	16	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1587	-	-	-	968	1049
Stage 1	-	-	-	-	996	-
Stage 2	-	-	-	-	1006	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1587	-	-	-	967	1049
Mov Cap-2 Maneuver	-	-	-	-	967	-
Stage 1	-	-	-	-	995	-
Stage 2	-	-	-	-	1006	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.12	0	8.45
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	277	-	-	-	1049
HCM Lane V/C Ratio	0.001	-	-	-	0.005
HCM Control Delay (s/veh)	7.3	0	-	-	8.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0



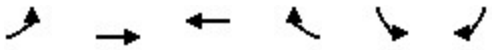
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	250		0	125		0	175		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.967			0.950			0.971			0.993	
Flt Protected		0.996			0.995			0.991			0.982	
Satd. Flow (prot)	0	3409	0	0	3345	0	0	3406	0	0	3451	0
Flt Permitted		0.996			0.995			0.991			0.982	
Satd. Flow (perm)	0	3409	0	0	3345	0	0	3406	0	0	3451	0
Link Speed (mph)		40			35			45			45	
Link Distance (ft)		631			610			567			842	
Travel Time (s)		10.8			11.9			8.6			12.8	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	4.2
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	211	156	156	361
Demand Flow Rate, veh/h	215	159	160	368
Vehicles Circulating, veh/h	368	147	302	136
Vehicles Exiting, veh/h	136	315	281	170
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.6	3.5	4.1	4.3
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.470	0.530	0.472	0.528	0.469	0.531	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	101	114	75	84	75	85	173	195
Cap Entry Lane, veh/h	962	1039	1179	1253	1022	1099	1191	1265
Entry HV Adj Factor	0.982	0.981	0.979	0.986	0.978	0.973	0.980	0.980
Flow Entry, veh/h	99	112	73	83	73	83	170	191
Cap Entry, veh/h	945	1019	1154	1235	1000	1069	1167	1240
V/C Ratio	0.105	0.110	0.064	0.067	0.073	0.077	0.145	0.154
Control Delay, s/veh	4.8	4.5	3.6	3.5	4.3	4.0	4.3	4.2
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	0	0	0	0	0	0	1	1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.954		0.995	
Flt Protected		0.999			0.954	
Satd. Flow (prot)	0	1861	1777	0	1768	0
Flt Permitted		0.999			0.954	
Satd. Flow (perm)	0	1861	1777	0	1768	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		350	935		1177	
Travel Time (s)		8.0	21.3		26.8	

Intersection Summary	
Area Type:	Other

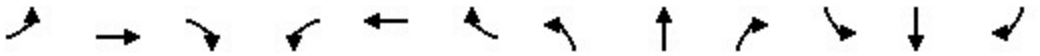
Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	251	112	58	95	4
Future Vol, veh/h	6	251	112	58	95	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	273	122	63	103	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	185	0	-	0	439	153
Stage 1	-	-	-	-	153	-
Stage 2	-	-	-	-	286	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1390	-	-	-	575	893
Stage 1	-	-	-	-	875	-
Stage 2	-	-	-	-	763	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1390	-	-	-	572	893
Mov Cap-2 Maneuver	-	-	-	-	572	-
Stage 1	-	-	-	-	870	-
Stage 2	-	-	-	-	763	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.18	0	12.61
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	42	-	-	-	580
HCM Lane V/C Ratio	0.005	-	-	-	0.185
HCM Control Delay (s/veh)	7.6	0	-	-	12.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.7



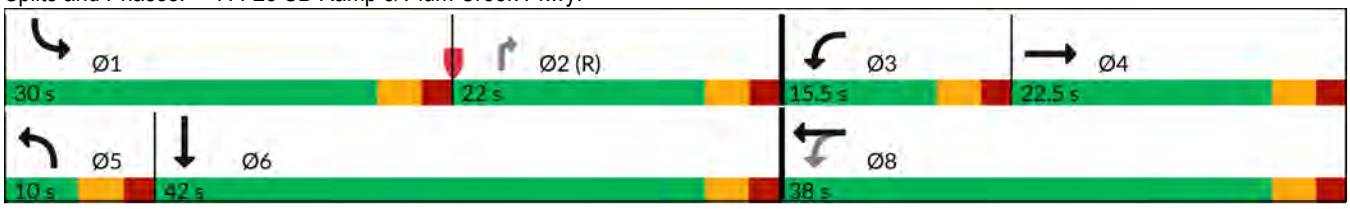
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		0	0		0	375		0	0		175
Storage Lanes	1		0	1		0	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt		0.979							0.850		0.974	
Flt Protected				0.950			0.950			0.950	0.977	
Satd. Flow (prot)	0	4979	0	1770	3539	0	1770	0	1583	3221	1613	0
Flt Permitted				0.308			0.950			0.950	0.977	
Satd. Flow (perm)	0	4979	0	574	3539	0	1770	0	1583	3221	1613	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30							220		11	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1497			253			493			625	
Travel Time (s)		34.0			5.8			11.2			14.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	313	156	211	16	202	661	92
Future Volume (vph)	313	156	211	16	202	661	92
Turn Type	NA	pm+pt	NA	Prot	Perm	Prot	NA
Protected Phases	4	3	8	5		1	6
Permitted Phases		8			2		
Detector Phase	4	3	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	10.0	22.5	10.0	22.5	22.5	22.5
Total Split (s)	22.5	15.5	38.0	10.0	22.0	30.0	42.0
Total Split (%)	25.0%	17.2%	42.2%	11.1%	24.4%	33.3%	46.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lead		Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	Max	Max
Act Effct Green (s)	12.1	27.1	27.1	6.3	17.0	30.9	30.9
Actuated g/C Ratio	0.13	0.30	0.30	0.07	0.19	0.34	0.34
v/c Ratio	0.57	0.56	0.22	0.14	0.46	0.53	0.51
Control Delay (s/veh)	36.7	15.6	11.2	41.6	8.1	26.5	27.4
Queue Delay	0.0	1.4	0.0	0.0	0.2	2.1	3.2
Total Delay (s/veh)	36.7	16.9	11.2	41.6	8.2	28.5	30.6
LOS	D	B	B	D	A	C	C
Approach Delay (s/veh)	36.7		13.7				29.2
Approach LOS	D		B				C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBR, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.57	
Intersection Signal Delay (s/veh): 25.2	Intersection LOS: C
Intersection Capacity Utilization 49.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 7: I-25 SB Ramp & Plum Creek Pkwy.





Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Group Flow (vph)	394	170	229	17	220	582	285
v/c Ratio	0.57	0.56	0.22	0.14	0.46	0.53	0.51
Control Delay (s/veh)	36.7	15.6	11.2	41.6	8.1	26.5	27.4
Queue Delay	0.0	1.4	0.0	0.0	0.2	2.1	3.2
Total Delay (s/veh)	36.7	16.9	11.2	41.6	8.2	28.5	30.6
Queue Length 50th (ft)	72	51	33	9	0	144	135
Queue Length 95th (ft)	99	m52	m34	30	59	213	236
Internal Link Dist (ft)	1417		173				545
Turn Bay Length (ft)				375			
Base Capacity (vph)	992	311	1297	123	477	1107	561
Starvation Cap Reductn	0	43	0	0	0	0	0
Spillback Cap Reductn	2	0	0	0	24	367	183
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.63	0.18	0.14	0.49	0.79	0.75

Intersection Summary

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

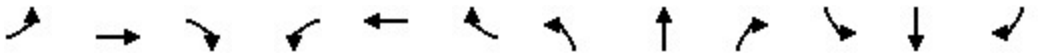
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	313	50	156	211	0	16	0	202	661	92	45
Future Volume (veh/h)	0	313	50	156	211	0	16	0	202	661	92	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	0	1870	1870	1870	1870	0	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	340	54	170	229	0	17	0	220	648	198	49
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, %	0	2	2	2	2	0	2	0	2	2	2	2
Cap, veh/h	0	513	79	301	969	0	34	0	0	2196	784	194
Arrive On Green	0.00	0.11	0.11	0.03	0.09	0.00	0.02	0.00	0.00	0.62	0.54	0.54
Sat Flow, veh/h	0	4629	689	1781	3647	0	1781	17		3563	1448	358
Grp Volume(v), veh/h	0	257	137	170	229	0	17	54.4		648	0	247
Grp Sat Flow(s),veh/h/ln	0	1702	1746	1781	1777	0	1781	D		1781	0	1806
Q Serve(g_s), s	0.0	6.5	6.8	7.3	5.4	0.0	0.9			7.7	0.0	6.5
Cycle Q Clear(g_c), s	0.0	6.5	6.8	7.3	5.4	0.0	0.9			7.7	0.0	6.5
Prop In Lane	0.00		0.39	1.00		0.00	1.00			1.00		0.20
Lane Grp Cap(c), veh/h	0	391	201	301	969	0	34			2196	0	978
V/C Ratio(X)	0.00	0.66	0.68	0.56	0.24	0.00	0.50			0.30	0.00	0.25
Avail Cap(c_a), veh/h	0	662	340	327	1303	0	99			2196	0	978
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00	1.00			1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.35	0.35	0.00	1.00			1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	38.1	38.2	31.6	32.2	0.0	43.7			8.1	0.0	11.0
Incr Delay (d2), s/veh	0.0	1.9	4.0	0.7	0.0	0.0	10.7			0.3	0.0	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.8	3.1	3.3	2.4	0.0	0.5			2.8	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	40.0	42.3	32.2	32.3	0.0	54.4			8.4	0.0	11.6
LnGrp LOS		D	D	C	C		D			A		B
Approach Vol, veh/h		394			399						895	
Approach Delay, s/veh		40.8			32.3						9.3	
Approach LOS		D			C						A	

Timer - Assigned Phs	1		3	4	5	6		8				
Phs Duration (G+Y+Rc), s	60.5		14.2	15.3	6.7	53.7		29.5				
Change Period (Y+Rc), s	5.0		5.0	5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	25.0		10.5	17.5	5.0	37.0		33.0				
Max Q Clear Time (g_c+I1), s	9.7		9.3	8.8	2.9	8.5		7.4				
Green Ext Time (p_c), s	2.2		0.1	1.6	0.0	1.5		1.4				

Intersection Summary	
HCM 7th Control Delay, s/veh	22.4
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



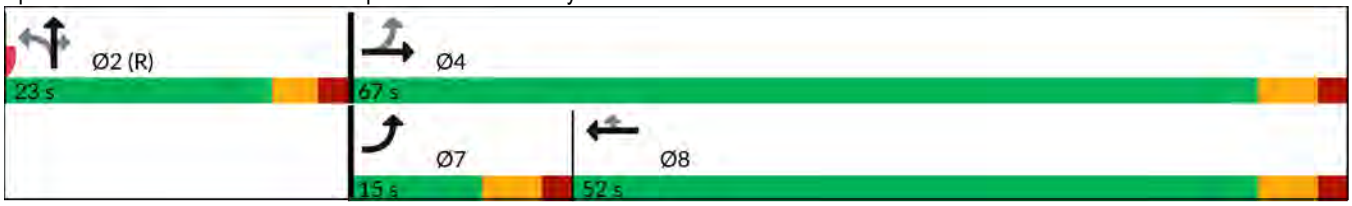
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	400		0	400		175	0		0
Storage Lanes	1		0	1		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	0.95	0.95	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.919	0.850		0.860	0.850			
Flt Protected	0.950						0.950	0.998				
Satd. Flow (prot)	1770	5085	0	0	1626	1504	1681	1455	1504	0	0	0
Flt Permitted	0.086						0.950	0.998				
Satd. Flow (perm)	160	5085	0	0	1626	1504	1681	1455	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					95	719		80	109			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		253			709			503			557	
Travel Time (s)		5.8			16.1			11.4			12.7	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	188	1023	333	1050	33	2	154
Future Volume (vph)	188	1023	333	1050	33	2	154
Turn Type	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	8			2	
Permitted Phases	4			8	2		2
Detector Phase	7	4	8	8	2	2	2
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	24.0	24.0	24.0	23.0	23.0	23.0
Total Split (s)	15.0	67.0	52.0	52.0	23.0	23.0	23.0
Total Split (%)	16.7%	74.4%	57.8%	57.8%	25.6%	25.6%	25.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	59.7	59.7	44.7	44.7	19.3	19.3	19.3
Actuated g/C Ratio	0.66	0.66	0.50	0.50	0.21	0.21	0.21
v/c Ratio	0.76	0.33	0.92	0.65	0.09	0.23	0.21
Control Delay (s/veh)	34.3	15.1	35.6	4.1	30.3	10.1	5.5
Queue Delay	6.3	3.6	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	40.6	18.7	35.6	4.1	30.3	10.1	5.5
LOS	D	B	D	A	C	B	A
Approach Delay (s/veh)		22.1	20.6			11.3	
Approach LOS		C	C			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 51 (57%), Referenced to phase 2:NBTL and 6:, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay (s/veh): 20.6	Intersection LOS: C
Intersection Capacity Utilization 72.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 8: NB I-25 Ramp & Plum Creek Pkwy.

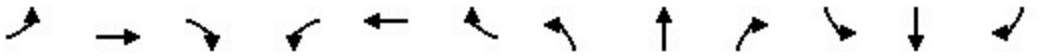




Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	204	1112	784	719	32	86	87
v/c Ratio	0.76	0.33	0.92	0.65	0.09	0.23	0.21
Control Delay (s/veh)	34.3	15.1	35.6	4.1	30.3	10.1	5.5
Queue Delay	6.3	3.6	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	40.6	18.7	35.6	4.1	30.3	10.1	5.5
Queue Length 50th (ft)	96	194	362	0	15	3	0
Queue Length 95th (ft)	#151	236	#637	56	42	45	28
Internal Link Dist (ft)		173	629			423	
Turn Bay Length (ft)					400		175
Base Capacity (vph)	267	3446	877	1120	361	375	408
Starvation Cap Reductn	32	2211	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.90	0.89	0.64	0.09	0.23	0.21

Intersection Summary

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



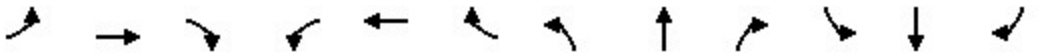
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	1023	0	0	333	1050	33	2	154	0	0	0
Future Volume (veh/h)	188	1023	0	0	333	1050	33	2	154	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	204	1112	0	0	946	752	25	0	180			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	239	3398	0	0	956	810	378	0	673			
Arrive On Green	0.09	0.67	0.00	0.00	0.51	0.51	0.21	0.00	0.21			
Sat Flow, veh/h	1781	5274	0	0	1870	1585	1781	0	3170			
Grp Volume(v), veh/h	204	1112	0	0	946	752	25	0	180			
Grp Sat Flow(s),veh/h/ln	1781	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	5.9	8.4	0.0	0.0	45.0	39.7	1.0	0.0	4.3			
Cycle Q Clear(g_c), s	5.9	8.4	0.0	0.0	45.0	39.7	1.0	0.0	4.3			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	239	3398	0	0	956	810	378	0	673			
V/C Ratio(X)	0.85	0.33	0.00	0.00	0.99	0.93	0.07	0.00	0.27			
Avail Cap(c_a), veh/h	261	3461	0	0	956	810	378	0	673			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.84	0.84	0.00	0.00	0.75	0.75	1.00	0.00	1.00			
Uniform Delay (d), s/veh	25.0	6.4	0.0	0.0	21.8	20.5	28.3	0.0	29.6			
Incr Delay (d2), s/veh	18.7	0.0	0.0	0.0	22.6	13.5	0.3	0.0	1.0			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.6	2.6	0.0	0.0	23.9	16.4	0.5	0.0	1.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.7	6.5	0.0	0.0	44.4	34.0	28.7	0.0	30.6			
LnGrp LOS	D	A			D	C	C		C			
Approach Vol, veh/h		1316			1698			205				
Approach Delay, s/veh		12.3			39.8			30.3				
Approach LOS		B			D			C				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		24.1		65.9			13.9	52.0				
Change Period (Y+Rc), s		5.0		6.0			6.0	6.0				
Max Green Setting (Gmax), s		18.0		61.0			9.0	46.0				
Max Q Clear Time (g_c+I1), s		6.3		10.4			7.9	47.0				
Green Ext Time (p_c), s		0.5		10.7			0.1	0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	27.9
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



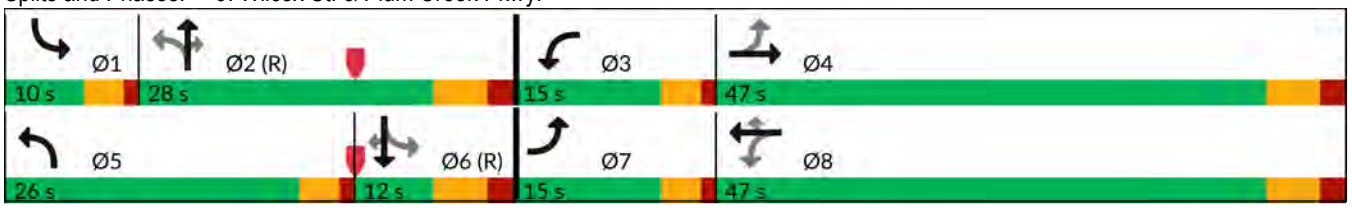
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	225		0	225		250	175		200
Storage Lanes	1		1	1		1	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	1863	1583	1770	1863	1583
Flt Permitted	0.133			0.360			0.589			0.686		
Satd. Flow (perm)	248	3539	1583	671	3539	1583	2128	1863	1583	1278	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			385			164			120			164
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		709			907			521			491	
Travel Time (s)		16.1			20.6			11.8			11.2	

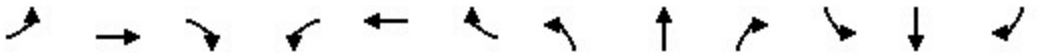
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	193	620	354	46	869	114	356	101	32	59	69	127
Future Volume (vph)	193	620	354	46	869	114	356	101	32	59	69	127
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		8	2		2	6		6
Detector Phase	7	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	31.0		9.5	31.0	31.0	9.5	36.0	36.0	9.5	34.0	34.0
Total Split (s)	15.0	47.0		15.0	47.0	47.0	26.0	28.0	28.0	10.0	12.0	12.0
Total Split (%)	15.0%	47.0%		15.0%	47.0%	47.0%	26.0%	28.0%	28.0%	10.0%	12.0%	12.0%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.0		1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	51.8	41.2	100.0	44.1	35.2	35.2	39.9	29.1	29.1	29.3	20.5	20.5
Actuated g/C Ratio	0.52	0.41	1.00	0.44	0.35	0.35	0.40	0.29	0.29	0.29	0.21	0.21
v/c Ratio	0.72	0.46	0.24	0.14	0.76	0.19	0.38	0.20	0.06	0.16	0.20	0.30
Control Delay (s/veh)	29.4	22.5	0.4	11.4	32.5	2.0	22.8	31.5	0.2	23.0	39.0	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	29.4	22.5	0.4	11.4	32.5	2.0	22.8	31.5	0.2	23.0	39.0	6.2
LOS	C	C	A	B	C	A	C	C	A	C	D	A
Approach Delay (s/veh)		16.9			28.2			23.1			19.0	
Approach LOS		B			C			C			B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 32 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay (s/veh): 22.1	Intersection LOS: C
Intersection Capacity Utilization 64.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Wilcox St. & Plum Creek Pkwy.

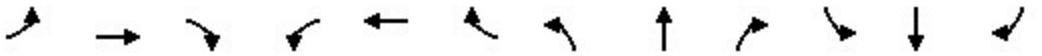




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	210	674	385	50	945	124	387	110	35	64	75	138
v/c Ratio	0.72	0.46	0.24	0.14	0.76	0.19	0.38	0.20	0.06	0.16	0.20	0.30
Control Delay (s/veh)	29.4	22.5	0.4	11.4	32.5	2.0	22.8	31.5	0.2	23.0	39.0	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	29.4	22.5	0.4	11.4	32.5	2.0	22.8	31.5	0.2	23.0	39.0	6.2
Queue Length 50th (ft)	68	164	0	15	274	0	85	56	0	25	40	0
Queue Length 95th (ft)	#140	201	0	29	318	18	132	108	0	58	91	39
Internal Link Dist (ft)		629			827			441			411	
Turn Bay Length (ft)	150			225			225		250	175		200
Base Capacity (vph)	295	1489	1583	444	1450	745	1136	541	545	409	382	455
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	0.71	0.45	0.24	0.11	0.65	0.17	0.34	0.20	0.06	0.16	0.20	0.30

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	620	354	46	869	114	356	101	32	59	69	127
Future Volume (veh/h)	193	620	354	46	869	114	356	101	32	59	69	127
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	210	674	0	50	945	124	387	110	35	64	75	138
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	285	1365		322	1159	517	1060	630	534	483	507	430
Arrive On Green	0.10	0.38	0.00	0.04	0.33	0.33	0.11	0.34	0.34	0.04	0.27	0.27
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	210	674	0	50	945	124	387	110	35	64	75	138
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	7.5	14.4	0.0	1.8	24.4	5.7	7.6	4.1	1.5	2.6	3.0	6.9
Cycle Q Clear(g_c), s	7.5	14.4	0.0	1.8	24.4	5.7	7.6	4.1	1.5	2.6	3.0	6.9
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	285	1365		322	1159	517	1060	630	534	483	507	430
V/C Ratio(X)	0.74	0.49		0.16	0.82	0.24	0.36	0.17	0.07	0.13	0.15	0.32
Avail Cap(c_a), veh/h	311	1457		451	1457	650	1450	630	534	516	507	430
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)	0.96	0.96	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.8	23.4	0.0	21.2	30.9	24.6	20.5	23.4	22.5	24.5	27.7	29.1
Incr Delay (d2), s/veh	7.8	0.3	0.0	0.2	3.0	0.2	0.2	0.6	0.2	0.1	0.6	2.0
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	3.6	6.0	0.0	0.8	10.7	2.2	3.0	1.9	0.6	1.1	1.4	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.6	23.7	0.0	21.4	33.9	24.9	20.7	24.0	22.7	24.6	28.3	31.0
LnGrp LOS	C	C		C	C	C	C	C	C	C	C	C
Approach Vol, veh/h		884			1119			532			277	
Approach Delay, s/veh		25.3			32.3			21.5			28.8	
Approach LOS		C			C			C			C	

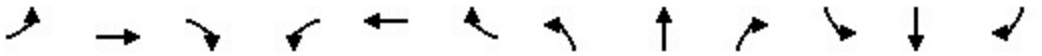
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	39.7	7.8	44.4	14.7	33.1	13.5	38.6
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	6.0	22.0	11.0	41.0	22.0	6.0	11.0	41.0
Max Q Clear Time (g_c+I1), s	4.6	6.1	3.8	16.4	9.6	8.9	9.5	26.4
Green Ext Time (p_c), s	0.0	0.5	0.0	4.9	1.1	0.0	0.1	6.2

Intersection Summary	
HCM 7th Control Delay, s/veh	27.7
HCM 7th LOS	C

Notes

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

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



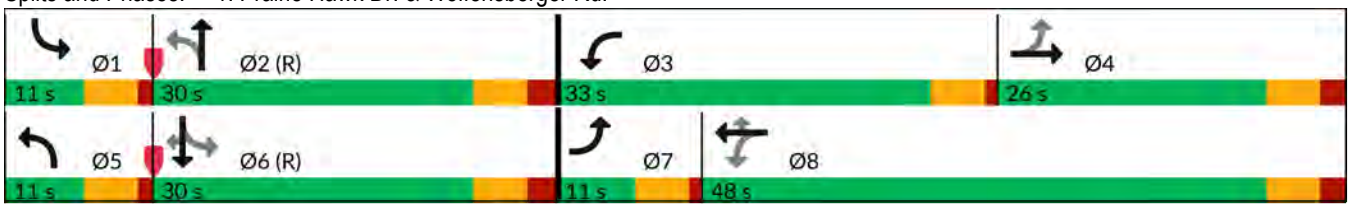
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		325	125		100	225		0	350		350
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.993				0.850		0.877				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3514	0	1770	3539	1583	1770	1634	0	1770	1863	1583
Flt Permitted	0.515			0.317			0.736			0.491		
Satd. Flow (perm)	959	3514	0	590	3539	1583	1371	1634	0	915	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4				200		209				196
Link Speed (mph)		40			40			30			45	
Link Distance (ft)		922			1021			638			586	
Travel Time (s)		15.7			17.4			14.5			8.9	

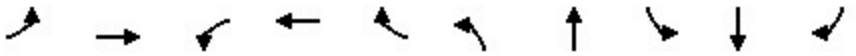
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	48	326	93	344	184	26	42	210	30	97
Future Volume (vph)	48	326	93	344	184	26	42	210	30	97
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases	4		8		8	2		6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	38.0	10.0	40.0	40.0	10.0	33.0	10.0	32.0	32.0
Total Split (s)	11.0	26.0	33.0	48.0	48.0	11.0	30.0	11.0	30.0	30.0
Total Split (%)	11.0%	26.0%	33.0%	48.0%	48.0%	11.0%	30.0%	11.0%	30.0%	30.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	2.0	1.0	2.0	2.0	1.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	5.0	6.0	6.0	5.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	21.5	15.7	28.2	19.2	19.2	50.0	42.7	61.0	53.0	53.0
Actuated g/C Ratio	0.22	0.16	0.28	0.19	0.19	0.50	0.43	0.61	0.53	0.53
v/c Ratio	0.21	0.67	0.36	0.55	0.43	0.04	0.31	0.34	0.03	0.11
Control Delay (s/veh)	24.7	45.2	27.6	38.8	7.5	11.5	7.2	12.1	17.0	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.7	45.2	27.6	38.8	7.5	11.5	7.2	12.1	17.0	0.2
LOS	C	D	C	D	A	B	A	B	B	A
Approach Delay (s/veh)		42.7		27.8			7.6		9.2	
Approach LOS		D		C			A		A	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay (s/veh): 24.2	Intersection LOS: C
Intersection Capacity Utilization 58.7%	ICU Level of Service B
Analysis Period (min) 15	

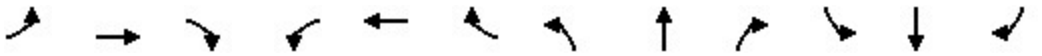
Splits and Phases: 1: Prairie Hawk Dr. & Wolfensberger Rd.





Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	52	371	101	374	200	28	255	228	33	105
v/c Ratio	0.21	0.67	0.36	0.55	0.43	0.04	0.31	0.34	0.03	0.11
Control Delay (s/veh)	24.7	45.2	27.6	38.8	7.5	11.5	7.2	12.1	17.0	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.7	45.2	27.6	38.8	7.5	11.5	7.2	12.1	17.0	0.2
Queue Length 50th (ft)	23	117	47	114	0	7	18	64	11	0
Queue Length 95th (ft)	46	158	77	146	54	22	85	123	33	0
Internal Link Dist (ft)		842		941			558		506	
Turn Bay Length (ft)	325		125		100	225		350		350
Base Capacity (vph)	254	706	519	1486	780	713	818	662	986	930
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.53	0.19	0.25	0.26	0.04	0.31	0.34	0.03	0.11

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	326	16	93	344	184	26	42	192	210	30	97
Future Volume (veh/h)	48	326	16	93	344	184	26	42	192	210	30	97
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	52	354	17	101	374	200	28	46	209	228	33	105
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	201	494	24	234	605	270	760	150	683	652	1018	863
Arrive On Green	0.04	0.14	0.14	0.07	0.17	0.17	0.03	0.51	0.51	0.06	0.54	0.54
Sat Flow, veh/h	1781	3452	165	1781	3554	1585	1781	294	1336	1781	1870	1585
Grp Volume(v), veh/h	52	182	189	101	374	200	28	0	255	228	33	105
Grp Sat Flow(s),veh/h/ln	1781	1777	1841	1781	1777	1585	1781	0	1630	1781	1870	1585
Q Serve(g_s), s	2.5	9.8	9.8	4.8	9.8	12.0	0.7	0.0	9.1	6.0	0.8	3.2
Cycle Q Clear(g_c), s	2.5	9.8	9.8	4.8	9.8	12.0	0.7	0.0	9.1	6.0	0.8	3.2
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.82	1.00		1.00
Lane Grp Cap(c), veh/h	201	254	263	234	605	270	760	0	834	652	1018	863
V/C Ratio(X)	0.26	0.72	0.72	0.43	0.62	0.74	0.04	0.00	0.31	0.35	0.03	0.12
Avail Cap(c_a), veh/h	240	355	368	616	1493	666	819	0	834	652	1018	863
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	40.9	40.9	33.7	38.5	39.4	10.8	0.0	14.1	11.1	10.6	11.1
Incr Delay (d2), s/veh	0.7	4.0	4.1	1.3	1.0	4.0	0.0	0.0	0.9	0.3	0.1	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	4.4	4.6	2.1	4.2	4.8	0.3	0.0	3.4	2.2	0.3	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.5	44.9	45.0	35.0	39.5	43.4	10.8	0.0	15.1	11.5	10.6	11.4
LnGrp LOS	D	D	D	C	D	D	B		B	B	B	B
Approach Vol, veh/h		423			675			283			366	
Approach Delay, s/veh		43.8			40.0			14.7			11.4	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	57.1	11.6	20.3	7.7	60.4	8.8	23.0
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	6.0	24.0	28.0	20.0	6.0	24.0	6.0	42.0
Max Q Clear Time (g_c+I1), s	8.0	11.1	6.8	11.8	2.7	5.2	4.5	14.0
Green Ext Time (p_c), s	0.0	1.2	0.2	1.2	0.0	0.4	0.0	3.0

Intersection Summary	
HCM 7th Control Delay, s/veh	30.8
HCM 7th LOS	C

Notes

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



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.999				0.904	
Flt Protected	0.953			0.999		
Satd. Flow (prot)	1773	0	0	1861	1684	0
Flt Permitted	0.953			0.999		
Satd. Flow (perm)	1773	0	0	1861	1684	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	671			479	638	
Travel Time (s)	15.3			10.9	14.5	

Intersection Summary	
Area Type:	Other

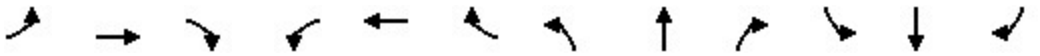
Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	135	1	3	95	42	104
Future Vol, veh/h	135	1	3	95	42	104
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	147	1	3	103	46	113

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	212	102	159	0	-	0
Stage 1	102	-	-	-	-	-
Stage 2	110	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	776	953	1421	-	-	-
Stage 1	922	-	-	-	-	-
Stage 2	915	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	774	953	1421	-	-	-
Mov Cap-2 Maneuver	774	-	-	-	-	-
Stage 1	920	-	-	-	-	-
Stage 2	915	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.73	0.23	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	55	-	776	-	-
HCM Lane V/C Ratio	0.002	-	0.191	-	-
HCM Control Delay (s/veh)	7.5	0	10.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.7	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.865						0.896	
Flt Protected		0.953						0.992			0.996	
Satd. Flow (prot)	0	1772	0	0	1611	0	0	1848	0	0	1662	0
Flt Permitted		0.953						0.992			0.996	
Satd. Flow (perm)	0	1772	0	0	1611	0	0	1848	0	0	1662	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		479			909			1975			245	
Travel Time (s)		10.9			20.7			44.9			5.6	

Intersection Summary	
Area Type:	Other

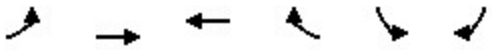
Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	73	0	1	0	0	14	1	5	0	5	7	40
Future Vol, veh/h	73	0	1	0	0	14	1	5	0	5	7	40
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	79	0	1	0	0	15	1	5	0	5	8	43

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	15	0	0	1	0	0	163	174	1	169	167	8
Stage 1	-	-	-	-	-	-	159	159	-	8	8	-
Stage 2	-	-	-	-	-	-	4	15	-	161	160	-
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	1603	-	-	1622	-	-	802	719	1084	795	725	1075
Stage 1	-	-	-	-	-	-	843	766	-	1014	889	-
Stage 2	-	-	-	-	-	-	1019	883	-	841	766	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1603	-	-	1622	-	-	724	683	1084	750	689	1075
Mov Cap-2 Maneuver	-	-	-	-	-	-	724	683	-	750	689	-
Stage 1	-	-	-	-	-	-	801	728	-	1014	889	-
Stage 2	-	-	-	-	-	-	969	883	-	793	728	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	7.26	0	10.27	8.98
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	690	1480	-	-	1622	-	-	962
HCM Lane V/C Ratio	0.009	0.05	-	-	-	-	-	0.059
HCM Control Delay (s/veh)	10.3	7.4	0	-	0	-	-	9
HCM Lane LOS	B	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-	-	0.2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.974		0.902	
Flt Protected		0.989			0.987	
Satd. Flow (prot)	0	1842	1814	0	1658	0
Flt Permitted		0.989			0.987	
Satd. Flow (perm)	0	1842	1814	0	1658	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		340	1975		832	
Travel Time (s)		7.7	44.9		18.9	

Intersection Summary	
Area Type:	Other

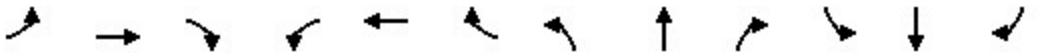
Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	29	16	4	3	7
Future Vol, veh/h	8	29	16	4	3	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	32	17	4	3	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	22	0	-	0	68	20
Stage 1	-	-	-	-	20	-
Stage 2	-	-	-	-	49	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1594	-	-	-	936	1058
Stage 1	-	-	-	-	1003	-
Stage 2	-	-	-	-	974	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1594	-	-	-	931	1058
Mov Cap-2 Maneuver	-	-	-	-	931	-
Stage 1	-	-	-	-	998	-
Stage 2	-	-	-	-	974	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.57	0	8.58
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	389	-	-	-	1017
HCM Lane V/C Ratio	0.005	-	-	-	0.011
HCM Control Delay (s/veh)	7.3	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0



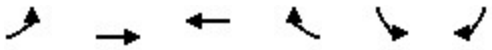
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	250		0	125		0	175		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.957			0.934			0.989			0.982	
Flt Protected		0.996			0.995			0.992			0.988	
Satd. Flow (prot)	0	3373	0	0	3289	0	0	3472	0	0	3434	0
Flt Permitted		0.996			0.995			0.992			0.988	
Satd. Flow (perm)	0	3373	0	0	3289	0	0	3472	0	0	3434	0
Link Speed (mph)		40			35			45			45	
Link Distance (ft)		631			610			567			842	
Travel Time (s)		10.8			11.9			8.6			12.8	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	4.3
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	179	269	284	306
Demand Flow Rate, veh/h	182	275	289	313
Vehicles Circulating, veh/h	302	282	209	199
Vehicles Exiting, veh/h	210	216	275	358
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.2	4.5	4.3	4.3
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.473	0.527	0.469	0.531	0.471	0.529	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	86	96	129	146	136	153	147	166
Cap Entry Lane, veh/h	1022	1099	1041	1117	1114	1189	1124	1199
Entry HV Adj Factor	0.977	0.987	0.982	0.978	0.980	0.982	0.979	0.977
Flow Entry, veh/h	84	95	127	143	133	150	144	162
Cap Entry, veh/h	999	1084	1023	1093	1092	1168	1100	1172
V/C Ratio	0.084	0.087	0.124	0.131	0.122	0.129	0.131	0.138
Control Delay, s/veh	4.4	4.1	4.6	4.4	4.4	4.2	4.4	4.3
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	0	0	0	0	0	0	0	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.967		0.994	
Flt Protected		0.999			0.954	
Satd. Flow (prot)	0	1861	1801	0	1766	0
Flt Permitted		0.999			0.954	
Satd. Flow (perm)	0	1861	1801	0	1766	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		350	935		1177	
Travel Time (s)		8.0	21.3		26.8	

Intersection Summary	
Area Type:	Other

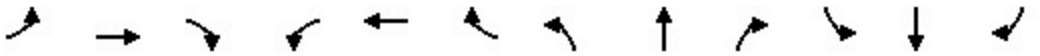
Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	243	271	89	80	4
Future Vol, veh/h	6	243	271	89	80	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	264	295	97	87	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	391	0	-	0	620	343
Stage 1	-	-	-	-	343	-
Stage 2	-	-	-	-	277	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1167	-	-	-	452	700
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	770	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1167	-	-	-	449	700
Mov Cap-2 Maneuver	-	-	-	-	449	-
Stage 1	-	-	-	-	714	-
Stage 2	-	-	-	-	770	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.2	0	14.85
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	43	-	-	-	456
HCM Lane V/C Ratio	0.006	-	-	-	0.2
HCM Control Delay (s/veh)	8.1	0	-	-	14.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.7



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		0	0		0	375		175	0		175
Storage Lanes	1		0	1		0	1		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt		0.985							0.850		0.988	
Flt Protected				0.950			0.950			0.950	0.987	
Satd. Flow (prot)	0	5009	0	1770	3539	0	1770	0	1583	3221	1653	0
Flt Permitted				0.312			0.950			0.950	0.987	
Satd. Flow (perm)	0	5009	0	581	3539	0	1770	0	1583	3221	1653	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19							206		5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1497			253			493			625	
Travel Time (s)		34.0			5.8			11.2			14.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	323	253	305	16	183	1276	373
Future Volume (vph)	323	253	305	16	183	1276	373
Turn Type	NA	pm+pt	NA	Prot	Perm	Prot	NA
Protected Phases	4	3	8	5		1	6
Permitted Phases		8			2		
Detector Phase	4	3	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	10.0	22.5	10.0	22.5	10.0	22.5
Total Split (s)	22.5	16.5	39.0	10.0	22.0	29.0	41.0
Total Split (%)	25.0%	18.3%	43.3%	11.1%	24.4%	32.2%	45.6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lead		Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.2	28.6	28.6	6.2	17.0	29.4	29.4
Actuated g/C Ratio	0.14	0.32	0.32	0.07	0.19	0.33	0.33
v/c Ratio	0.56	0.82	0.30	0.14	0.43	1.16	1.14
Control Delay (s/veh)	37.6	46.6	34.1	41.7	7.5	113.7	114.3
Queue Delay	0.0	13.9	0.5	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.6	60.4	34.6	41.7	7.5	113.7	114.3
LOS	D	E	C	D	A	F	F
Approach Delay (s/veh)	37.6		46.3				113.9
Approach LOS	D		D				F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBR and 6:SBT, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.16	
Intersection Signal Delay (s/veh): 83.4	Intersection LOS: F
Intersection Capacity Utilization 71.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: I-25 SB Ramp & Plum Creek Pkwy.





Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Group Flow (vph)	391	275	332	17	199	1221	619
v/c Ratio	0.56	0.82	0.30	0.14	0.43	1.16	1.14
Control Delay (s/veh)	37.6	46.6	34.1	41.7	7.5	113.7	114.3
Queue Delay	0.0	13.9	0.5	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.6	60.4	34.6	41.7	7.5	113.7	114.3
Queue Length 50th (ft)	73	138	86	9	0	~454	~454
Queue Length 95th (ft)	100	m139	m87	30	52	#634	#730
Internal Link Dist (ft)	1417		173				545
Turn Bay Length (ft)				375	175		
Base Capacity (vph)	989	336	1336	122	466	1051	543
Starvation Cap Reductn	0	49	612	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.96	0.46	0.14	0.43	1.16	1.14

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.

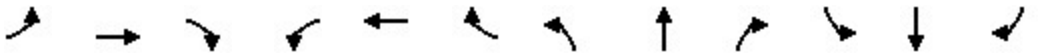
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	323	37	253	305	0	16	0	183	1276	373	44
Future Volume (veh/h)	0	323	37	253	305	0	16	0	183	1276	373	44
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	0	1870	1870	1870	1870	0	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	351	40	275	332	0	17	0	199	1307	517	48
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, %	0	2	2	2	2	0	2	0	2	2	2	2
Cap, veh/h	0	529	59	347	1055	0	34	0	0	2109	872	81
Arrive On Green	0.00	0.11	0.11	0.26	0.59	0.00	0.02	0.00	0.00	0.59	0.52	0.52
Sat Flow, veh/h	0	4828	521	1781	3647	0	1781	17		3563	1686	157
Grp Volume(v), veh/h	0	255	136	275	332	0	17	54.4		1307	0	565
Grp Sat Flow(s),veh/h/ln	0	1702	1777	1781	1777	0	1781	D		1781	0	1842
Q Serve(g_s), s	0.0	6.4	6.6	11.5	4.2	0.0	0.9			21.3	0.0	19.2
Cycle Q Clear(g_c), s	0.0	6.4	6.6	11.5	4.2	0.0	0.9			21.3	0.0	19.2
Prop In Lane	0.00		0.29	1.00		0.00	1.00			1.00		0.08
Lane Grp Cap(c), veh/h	0	386	202	347	1055	0	34			2109	0	953
V/C Ratio(X)	0.00	0.66	0.68	0.79	0.31	0.00	0.50			0.62	0.00	0.59
Avail Cap(c_a), veh/h	0	662	345	347	1343	0	99			2109	0	953
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00	1.00			1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.29	0.29	0.00	1.00			1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	38.2	38.3	25.9	13.7	0.0	43.7			11.8	0.0	15.1
Incr Delay (d2), s/veh	0.0	1.9	3.9	3.7	0.0	0.0	10.7			0.6	0.0	2.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.8	3.1	4.5	1.5	0.0	0.5			7.7	0.0	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	40.1	42.2	29.6	13.8	0.0	54.4			12.4	0.0	17.8
LnGrp LOS		D	D	C	B		D			B		B
Approach Vol, veh/h		391			607						1872	
Approach Delay, s/veh		40.9			21.0						14.0	
Approach LOS		D			C						B	

Timer - Assigned Phs	1		3	4	5	6		8				
Phs Duration (G+Y+Rc), s	58.3		16.5	15.2	6.7	51.6		31.7				
Change Period (Y+Rc), s	5.0		5.0	5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	24.0		11.5	17.5	5.0	36.0		34.0				
Max Q Clear Time (g_c+I1), s	23.3		13.5	8.6	2.9	21.2		6.2				
Green Ext Time (p_c), s	0.5		0.0	1.6	0.0	3.3		2.3				

Intersection Summary	
HCM 7th Control Delay, s/veh	19.4
HCM 7th LOS	B

Notes
User approved volume balancing among the lanes for turning movement.



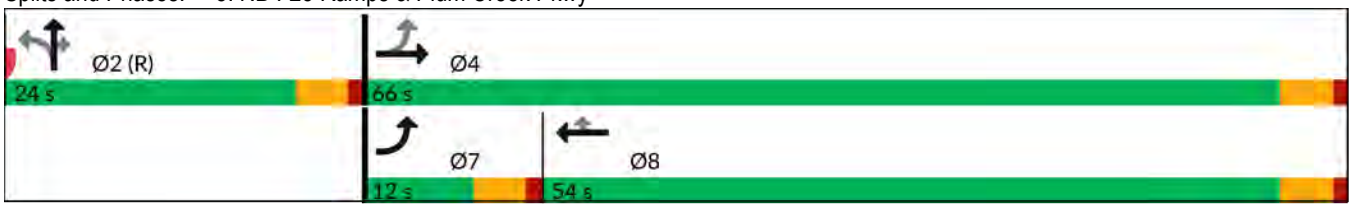
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	0.95	0.95	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.947	0.850		0.861	0.850			
Flt Protected	0.950						0.950	0.998				
Satd. Flow (prot)	1770	5085	0	0	1676	1504	1681	1457	1504	0	0	0
Flt Permitted	0.075						0.950	0.998				
Satd. Flow (perm)	140	5085	0	0	1676	1504	1681	1457	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					49	800		35	73			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		364			351			392			179	
Travel Time (s)		8.3			8.0			8.9			4.1	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	146	1606	523	1022	44	3	201
Future Volume (vph)	146	1606	523	1022	44	3	201
Turn Type	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	8			2	
Permitted Phases	4			8	2		2
Detector Phase	7	4	8	8	2	2	2
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	12.0	66.0	54.0	54.0	24.0	24.0	24.0
Total Split (%)	13.3%	73.3%	60.0%	60.0%	26.7%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	61.0	61.0	49.0	49.0	20.0	20.0	20.0
Actuated g/C Ratio	0.68	0.68	0.54	0.54	0.22	0.22	0.22
v/c Ratio	0.69	0.51	0.94	0.68	0.11	0.32	0.29
Control Delay (s/veh)	30.7	7.7	37.9	4.1	29.4	23.6	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	30.7	7.7	37.9	4.1	29.4	23.6	14.7
LOS	C	A	D	A	C	C	B
Approach Delay (s/veh)		9.6	21.8			20.8	
Approach LOS		A	C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay (s/veh): 15.7	Intersection LOS: B
Intersection Capacity Utilization 71.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 8: NB I-25 Ramps & Plum Creek Pkwy

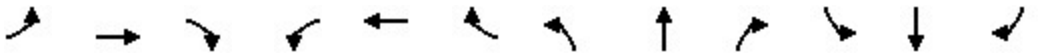




Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	159	1746	879	800	43	113	113
v/c Ratio	0.69	0.51	0.94	0.68	0.11	0.32	0.29
Control Delay (s/veh)	30.7	7.7	37.9	4.1	29.4	23.6	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	30.7	7.7	37.9	4.1	29.4	23.6	14.7
Queue Length 50th (ft)	35	152	435	0	21	40	18
Queue Length 95th (ft)	#122	183	#738	53	50	93	66
Internal Link Dist (ft)		284	271			312	
Turn Bay Length (ft)							
Base Capacity (vph)	230	3474	943	1187	374	351	391
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.50	0.93	0.67	0.11	0.32	0.29

Intersection Summary

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

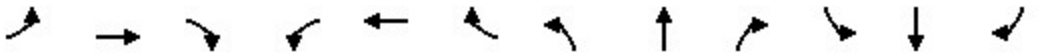


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	1606	0	0	523	1022	44	3	201	0	0	0
Future Volume (veh/h)	146	1606	0	0	523	1022	44	3	201	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	159	1746	0	0	975	840	33	0	236			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	198	3349	0	0	1024	868	435	0	774			
Arrive On Green	0.06	0.66	0.00	0.00	0.55	0.55	0.24	0.00	0.24			
Sat Flow, veh/h	1781	5274	0	0	1870	1585	1781	0	3170			
Grp Volume(v), veh/h	159	1746	0	0	975	840	33	0	236			
Grp Sat Flow(s),veh/h/ln	1781	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	3.3	16.1	0.0	0.0	44.4	45.9	1.3	0.0	5.5			
Cycle Q Clear(g_c), s	3.3	16.1	0.0	0.0	44.4	45.9	1.3	0.0	5.5			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	198	3349	0	0	1024	868	435	0	774			
V/C Ratio(X)	0.80	0.52	0.00	0.00	0.95	0.97	0.08	0.00	0.31			
Avail Cap(c_a), veh/h	243	3489	0	0	1029	872	435	0	774			
HCM Platoon Ratio	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	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	21.2	8.1	0.0	0.0	19.3	19.6	26.2	0.0	27.8			
Incr Delay (d2), s/veh	14.5	0.1	0.0	0.0	17.7	22.9	0.3	0.0	1.0			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.6	5.1	0.0	0.0	22.2	20.6	0.6	0.0	2.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.8	8.2	0.0	0.0	36.9	42.5	26.5	0.0	28.8			
LnGrp LOS	D	A			D	D	C		C			
Approach Vol, veh/h		1905			1815			269				
Approach Delay, s/veh		10.5			39.5			28.5				
Approach LOS		B			D			C				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		26.5		63.5			9.8	53.8				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		19.5		61.5			7.5	49.5				
Max Q Clear Time (g_c+I1), s		7.5		18.1			5.3	47.9				
Green Ext Time (p_c), s		0.8		20.4			0.1	1.4				

Intersection Summary	
HCM 7th Control Delay, s/veh	24.9
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



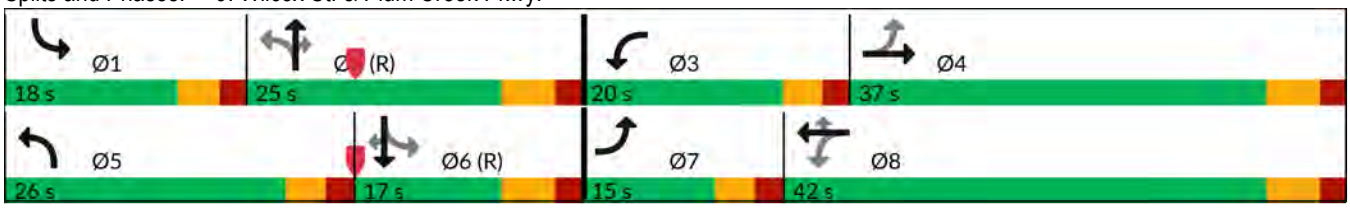
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		0	225		0	225		250	175		200
Storage Lanes	1		1	1		1	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	1863	1583	1770	1863	1583
Flt Permitted	0.149			0.112			0.545			0.665		
Satd. Flow (perm)	278	3539	1583	209	3539	1583	1969	1863	1583	1239	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			390			196			142			242
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		709			907			521			491	
Travel Time (s)		16.1			20.6			11.8			11.2	

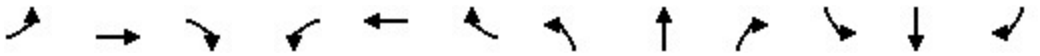
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	234	1058	548	63	829	105	452	133	56	167	100	223
Future Volume (vph)	234	1058	548	63	829	105	452	133	56	167	100	223
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		8	2		2	6		6
Detector Phase	7	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	36.0		10.0	31.0	31.0	10.0	36.0	36.0	10.0	29.0	29.0
Total Split (s)	15.0	37.0		20.0	42.0	42.0	26.0	25.0	25.0	18.0	17.0	17.0
Total Split (%)	15.0%	37.0%		20.0%	42.0%	42.0%	26.0%	25.0%	25.0%	18.0%	17.0%	17.0%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0		5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	48.3	39.3	100.0	43.0	34.6	34.6	38.3	22.0	22.0	30.2	17.7	17.7
Actuated g/C Ratio	0.48	0.39	1.00	0.43	0.35	0.35	0.38	0.22	0.22	0.30	0.18	0.18
v/c Ratio	0.90	0.83	0.38	0.33	0.74	0.17	0.50	0.36	0.13	0.42	0.33	0.51
Control Delay (s/veh)	52.6	34.2	0.7	17.0	32.7	0.5	23.9	37.6	0.6	25.0	41.8	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	52.6	34.2	0.7	17.0	32.7	0.5	23.9	37.6	0.6	25.0	41.8	9.6
LOS	D	C	A	B	C	A	C	D	A	C	D	A
Approach Delay (s/veh)		26.5			28.3			24.7			21.4	
Approach LOS		C			C			C			C	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 69 (69%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay (s/veh): 26.1	Intersection LOS: C
Intersection Capacity Utilization 72.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Wilcox St. & Plum Creek Pkwy.

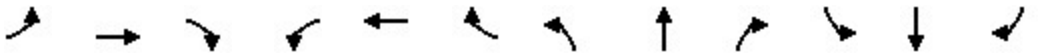




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	254	1150	596	68	901	114	491	145	61	182	109	242
v/c Ratio	0.90	0.83	0.38	0.33	0.74	0.17	0.50	0.36	0.13	0.42	0.33	0.51
Control Delay (s/veh)	52.6	34.2	0.7	17.0	32.7	0.5	23.9	37.6	0.6	25.0	41.8	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	52.6	34.2	0.7	17.0	32.7	0.5	23.9	37.6	0.6	25.0	41.8	9.6
Queue Length 50th (ft)	87	344	0	21	256	0	114	82	0	79	63	0
Queue Length 95th (ft)	#235	#482	0	42	327	0	157	142	0	132	121	71
Internal Link Dist (ft)		629			827			441			411	
Turn Bay Length (ft)	325			225			225		250	175		200
Base Capacity (vph)	283	1390	1583	339	1274	695	1083	408	458	461	329	479
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	0.90	0.83	0.38	0.20	0.71	0.16	0.45	0.36	0.13	0.39	0.33	0.51

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)	234	1058	548	63	829	105	452	133	56	167	100	223
Future Volume (veh/h)	234	1058	548	63	829	105	452	133	56	167	100	223
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	254	1150	0	68	901	114	491	145	61	182	109	242
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	288	1286		175	1081	482	997	523	443	501	451	382
Arrive On Green	0.10	0.36	0.00	0.04	0.30	0.30	0.13	0.28	0.28	0.10	0.24	0.24
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	254	1150	0	68	901	114	491	145	61	182	109	242
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	9.6	30.5	0.0	2.6	23.6	5.4	10.2	6.1	2.9	7.5	4.7	13.7
Cycle Q Clear(g_c), s	9.6	30.5	0.0	2.6	23.6	5.4	10.2	6.1	2.9	7.5	4.7	13.7
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	288	1286		175	1081	482	997	523	443	501	451	382
V/C Ratio(X)	0.88	0.89		0.39	0.83	0.24	0.49	0.28	0.14	0.36	0.24	0.63
Avail Cap(c_a), veh/h	288	1286		367	1279	571	1258	523	443	561	451	382
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)	0.85	0.85	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.1	30.1	0.0	25.8	32.4	26.1	22.3	28.1	27.0	24.5	30.6	34.0
Incr Delay (d2), s/veh	22.7	7.3	0.0	1.4	4.2	0.2	0.4	1.3	0.6	0.4	1.3	7.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	13.9	0.0	1.1	10.6	2.0	4.1	2.9	1.2	3.2	2.3	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.8	37.4	0.0	27.2	36.7	26.3	22.7	29.5	27.6	24.9	31.8	41.8
LnGrp LOS	D	D		C	D	C	C	C	C	C	C	D
Approach Vol, veh/h		1404			1083			697			533	
Approach Delay, s/veh		39.1			35.0			24.5			34.0	
Approach LOS		D			C			C			C	

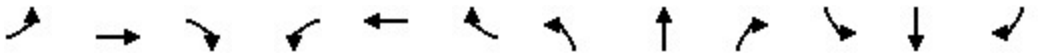
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.6	33.9	9.2	42.2	18.5	30.1	15.0	36.4
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	13.0	19.0	15.0	31.0	21.0	11.0	10.0	36.0
Max Q Clear Time (g_c+I1), s	9.5	8.1	4.6	32.5	12.2	15.7	11.6	25.6
Green Ext Time (p_c), s	0.2	0.7	0.1	0.0	1.3	0.0	0.0	4.8

Intersection Summary	
HCM 7th Control Delay, s/veh	34.4
HCM 7th LOS	C

Notes

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

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



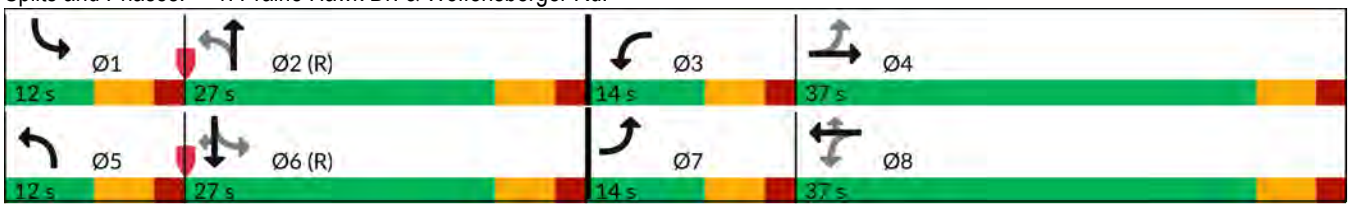
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		325	125		100	225		0	350		350
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.993				0.850		0.875				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3514	0	1770	3539	1583	1770	1630	0	1770	1863	1583
Flt Permitted	0.617			0.322			0.733			0.565		
Satd. Flow (perm)	1149	3514	0	600	3539	1583	1365	1630	0	1052	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6				182		90				182
Link Speed (mph)		40			40			30			45	
Link Distance (ft)		922			1021			638			586	
Travel Time (s)		15.7			17.4			14.5			8.9	

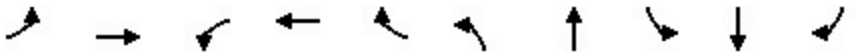
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	84	411	130	198	167	4	17	214	34	40
Future Volume (vph)	84	411	130	198	167	4	17	214	34	40
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases	4		8		8	2		6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	38.0	11.0	40.0	40.0	11.0	33.0	11.0	32.0	32.0
Total Split (s)	14.0	37.0	14.0	37.0	37.0	12.0	27.0	12.0	27.0	27.0
Total Split (%)	15.6%	41.1%	15.6%	41.1%	41.1%	13.3%	30.0%	13.3%	30.0%	30.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	25.0	17.5	26.7	20.3	20.3	34.5	28.9	46.6	44.2	44.2
Actuated g/C Ratio	0.28	0.19	0.30	0.23	0.23	0.38	0.32	0.52	0.49	0.49
v/c Ratio	0.25	0.68	0.50	0.27	0.37	0.01	0.19	0.37	0.04	0.05
Control Delay (s/veh)	20.8	38.0	26.6	30.1	6.8	13.5	9.2	14.9	15.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.8	38.0	26.6	30.1	6.8	13.5	9.2	14.9	15.7	0.1
LOS	C	D	C	C	A	B	A	B	B	A
Approach Delay (s/veh)		35.2		21.3			9.4		12.9	
Approach LOS		D		C			A		B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay (s/veh): 23.8	Intersection LOS: C
Intersection Capacity Utilization 52.7%	ICU Level of Service A
Analysis Period (min) 15	

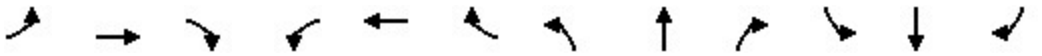
Splits and Phases: 1: Prairie Hawk Dr. & Wolfensberger Rd.





Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	91	468	141	215	182	4	108	233	37	43
v/c Ratio	0.25	0.68	0.50	0.27	0.37	0.01	0.19	0.37	0.04	0.05
Control Delay (s/veh)	20.8	38.0	26.6	30.1	6.8	13.5	9.2	14.9	15.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.8	38.0	26.6	30.1	6.8	13.5	9.2	14.9	15.7	0.1
Queue Length 50th (ft)	35	130	56	55	0	1	7	69	10	0
Queue Length 95th (ft)	63	168	91	82	50	7	49	130	36	0
Internal Link Dist (ft)		842		941			558		506	
Turn Bay Length (ft)	325		125		100	225		350		350
Base Capacity (vph)	381	1214	282	1218	664	555	583	638	915	870
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.39	0.50	0.18	0.27	0.01	0.19	0.37	0.04	0.05

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	411	19	130	198	167	4	17	83	214	34	40
Future Volume (veh/h)	84	411	19	130	198	167	4	17	83	214	34	40
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	91	447	21	141	215	182	4	18	90	233	37	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	327	594	28	274	704	314	631	111	557	673	884	749
Arrive On Green	0.06	0.17	0.17	0.08	0.20	0.20	0.01	0.41	0.41	0.07	0.47	0.47
Sat Flow, veh/h	1781	3456	162	1781	3554	1585	1781	271	1355	1781	1870	1585
Grp Volume(v), veh/h	91	229	239	141	215	182	4	0	108	233	37	43
Grp Sat Flow(s),veh/h/ln	1781	1777	1841	1781	1777	1585	1781	0	1626	1781	1870	1585
Q Serve(g_s), s	3.7	11.0	11.1	5.8	4.6	9.4	0.1	0.0	3.8	6.0	1.0	1.3
Cycle Q Clear(g_c), s	3.7	11.0	11.1	5.8	4.6	9.4	0.1	0.0	3.8	6.0	1.0	1.3
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.83	1.00		1.00
Lane Grp Cap(c), veh/h	327	305	316	274	704	314	631	0	668	673	884	749
V/C Ratio(X)	0.28	0.75	0.75	0.51	0.31	0.58	0.01	0.00	0.16	0.35	0.04	0.06
Avail Cap(c_a), veh/h	383	612	634	283	1224	546	741	0	668	673	884	749
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	35.4	35.5	27.9	30.8	32.7	15.4	0.0	16.7	13.8	12.8	12.9
Incr Delay (d2), s/veh	0.5	3.7	3.6	1.5	0.2	1.7	0.0	0.0	0.5	0.3	0.1	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	4.9	5.1	2.4	1.9	3.6	0.0	0.0	1.5	2.5	0.4	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	28.7	39.1	39.1	29.4	31.0	34.4	15.4	0.0	17.2	14.1	12.9	13.0
LnGrp LOS	C	D	D	C	C	C	B		B	B	B	B
Approach Vol, veh/h		559			538			112			313	
Approach Delay, s/veh		37.4			31.7			17.2			13.8	
Approach LOS		D			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	43.0	13.5	21.5	6.5	48.5	11.2	23.8
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	6.0	21.0	8.0	31.0	6.0	21.0	8.0	31.0
Max Q Clear Time (g_c+I1), s	8.0	5.8	7.8	13.1	2.1	3.3	5.7	11.4
Green Ext Time (p_c), s	0.0	0.4	0.0	2.4	0.0	0.2	0.0	1.7

Intersection Summary	
HCM 7th Control Delay, s/veh	29.1
HCM 7th LOS	C

Notes

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



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.946	
Flt Protected	0.950			0.999		
Satd. Flow (prot)	1770	0	0	1861	1762	0
Flt Permitted	0.950			0.999		
Satd. Flow (perm)	1770	0	0	1861	1762	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	671			479	638	
Travel Time (s)	15.3			10.9	14.5	

Intersection Summary	
Area Type:	Other

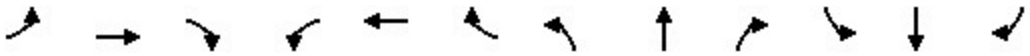
Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	44	0	1	46	101	67
Future Vol, veh/h	44	0	1	46	101	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	0	1	50	110	73

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	198	146	183	0	-	0
Stage 1	146	-	-	-	-	-
Stage 2	52	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	790	901	1392	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	970	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	790	901	1392	-	-	-
Mov Cap-2 Maneuver	790	-	-	-	-	-
Stage 1	880	-	-	-	-	-
Stage 2	970	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.85	0.16	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	38	-	790	-	-
HCM Lane V/C Ratio	0.001	-	0.061	-	-
HCM Control Delay (s/veh)	7.6	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.882						0.997			0.865	
Flt Protected		0.995			0.980			0.953				
Satd. Flow (prot)	0	1635	0	0	1825	0	0	1770	0	0	1611	0
Flt Permitted		0.995			0.980			0.953				
Satd. Flow (perm)	0	1635	0	0	1825	0	0	1770	0	0	1611	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		479			909			1975			245	
Travel Time (s)		10.9			20.7			44.9			5.6	

Intersection Summary	
Area Type:	Other

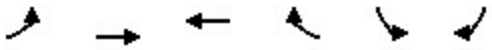
Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	3	78	2	3	0	37	0	1	0	0	8
Future Vol, veh/h	8	3	78	2	3	0	37	0	1	0	0	8
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	9	3	85	2	3	0	40	0	1	0	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	3	0	0	88	0	0	71	71	46	28	113	3
Stage 1	-	-	-	-	-	-	63	63	-	8	8	-
Stage 2	-	-	-	-	-	-	8	8	-	21	105	-
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	1619	-	-	1508	-	-	921	820	1024	981	777	1081
Stage 1	-	-	-	-	-	-	948	842	-	1014	889	-
Stage 2	-	-	-	-	-	-	1014	889	-	998	808	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1619	-	-	1508	-	-	907	814	1024	973	772	1081
Mov Cap-2 Maneuver	-	-	-	-	-	-	907	814	-	973	772	-
Stage 1	-	-	-	-	-	-	943	838	-	1012	888	-
Stage 2	-	-	-	-	-	-	1004	888	-	991	803	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.65	2.96	9.15	8.36
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	910	136	-	-	720	-	-	1081
HCM Lane V/C Ratio	0.045	0.005	-	-	0.001	-	-	0.008
HCM Control Delay (s/veh)	9.1	7.2	0	-	7.4	0	-	8.4
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	150			0	150	0
Storage Lanes	0			0	0	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.995		0.865	
Flt Protected		0.993				
Satd. Flow (prot)	0	1850	1853	0	1611	0
Flt Permitted		0.993				
Satd. Flow (perm)	0	1850	1853	0	1611	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		340	1975		832	
Travel Time (s)		7.7	44.9		18.9	

Intersection Summary	
Area Type:	Other

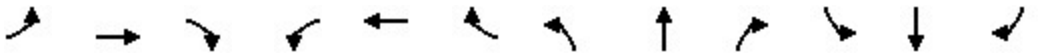
Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	12	25	1	0	5
Future Vol, veh/h	2	12	25	1	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	13	27	1	0	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	28	0	-	0	45	28
Stage 1	-	-	-	-	28	-
Stage 2	-	-	-	-	17	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1585	-	-	-	965	1048
Stage 1	-	-	-	-	995	-
Stage 2	-	-	-	-	1005	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1585	-	-	-	964	1048
Mov Cap-2 Maneuver	-	-	-	-	964	-
Stage 1	-	-	-	-	993	-
Stage 2	-	-	-	-	1005	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.04	0	8.45
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	257	-	-	-	1048
HCM Lane V/C Ratio	0.001	-	-	-	0.005
HCM Control Delay (s/veh)	7.3	0	-	-	8.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0



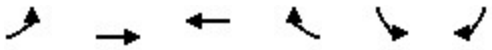
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	250		0	125		0	175		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.967			0.950			0.971			0.993	
Flt Protected		0.996			0.995			0.991			0.982	
Satd. Flow (prot)	0	3409	0	0	3345	0	0	3406	0	0	3451	0
Flt Permitted		0.996			0.995			0.991			0.982	
Satd. Flow (perm)	0	3409	0	0	3345	0	0	3406	0	0	3451	0
Link Speed (mph)		40			35			45			45	
Link Distance (ft)		631			610			567			842	
Travel Time (s)		10.8			11.9			8.6			12.8	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	4.3
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	222	162	164	379
Demand Flow Rate, veh/h	226	165	168	386
Vehicles Circulating, veh/h	385	155	317	141
Vehicles Exiting, veh/h	142	330	294	179
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.8	3.6	4.2	4.4
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.469	0.531	0.473	0.527	0.470	0.530	0.469	0.531
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	106	120	78	87	79	89	181	205
Cap Entry Lane, veh/h	947	1024	1170	1245	1008	1085	1186	1260
Entry HV Adj Factor	0.984	0.980	0.977	0.988	0.975	0.976	0.983	0.979
Flow Entry, veh/h	104	118	76	86	77	87	178	201
Cap Entry, veh/h	932	1003	1144	1230	984	1059	1165	1233
V/C Ratio	0.112	0.117	0.067	0.070	0.078	0.082	0.153	0.163
Control Delay, s/veh	4.9	4.6	3.7	3.5	4.4	4.1	4.4	4.3
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	0	0	0	0	0	0	1	1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.954		0.995	
Flt Protected		0.999			0.954	
Satd. Flow (prot)	0	1861	1777	0	1768	0
Flt Permitted		0.999			0.954	
Satd. Flow (perm)	0	1861	1777	0	1768	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		350	935		1177	
Travel Time (s)		8.0	21.3		26.8	

Intersection Summary	
Area Type:	Other

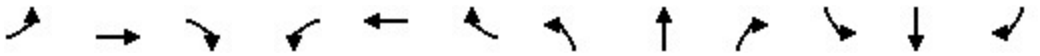
Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	264	118	61	100	4
Future Vol, veh/h	6	264	118	61	100	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	287	128	66	109	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	195	0	-	0	461	161
Stage 1	-	-	-	-	161	-
Stage 2	-	-	-	-	300	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1379	-	-	-	558	884
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	752	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1379	-	-	-	555	884
Mov Cap-2 Maneuver	-	-	-	-	555	-
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	752	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.17	0	12.99
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	40	-	-	-	563
HCM Lane V/C Ratio	0.005	-	-	-	0.201
HCM Control Delay (s/veh)	7.6	0	-	-	13
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.7



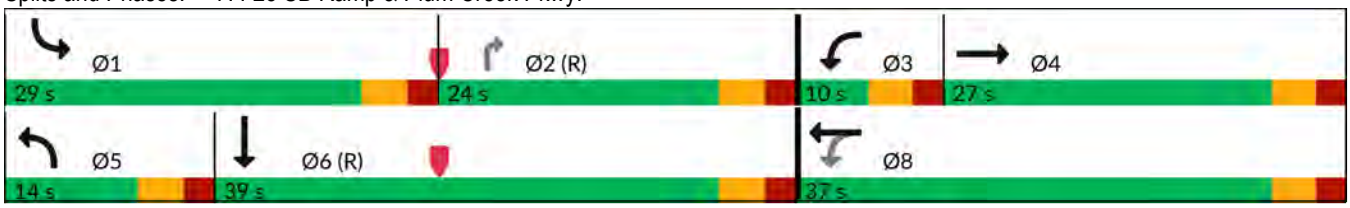
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		0	0		0	375		175	0		175
Storage Lanes	1		0	1		0	1		0	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt		0.979							0.850		0.962	
Flt Protected				0.950			0.950			0.950	0.974	
Satd. Flow (prot)	0	4979	0	1770	3539	0	1770	0	1583	3221	1588	0
Flt Permitted				0.296			0.950			0.950	0.974	
Satd. Flow (perm)	0	4979	0	551	3539	0	1770	0	1583	3221	1588	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33							208		18	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1476			253			493			625	
Travel Time (s)		33.5			5.8			11.2			14.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	329	164	222	17	191	486	39
Future Volume (vph)	329	164	222	17	191	486	39
Turn Type	NA	pm+pt	NA	Prot	Perm	Prot	NA
Protected Phases	4	3	8	5		1	6
Permitted Phases		8			2		
Detector Phase	4	3	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	10.0	23.0	10.0	23.0	10.0	23.0
Total Split (s)	27.0	10.0	37.0	14.0	24.0	29.0	39.0
Total Split (%)	30.0%	11.1%	41.1%	15.6%	26.7%	32.2%	43.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lead		Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.6	22.6	22.6	6.5	35.5	16.8	16.8
Actuated g/C Ratio	0.14	0.25	0.25	0.07	0.39	0.19	0.19
v/c Ratio	0.57	0.86	0.27	0.14	0.28	0.69	0.66
Control Delay (s/veh)	36.1	65.1	34.5	41.1	4.5	40.2	40.7
Queue Delay	0.0	57.9	0.0	0.0	0.0	0.0	0.3
Total Delay (s/veh)	36.1	123.0	34.5	41.1	4.5	40.2	41.0
LOS	D	F	C	D	A	D	D
Approach Delay (s/veh)	36.1		72.1				40.5
Approach LOS	D		E				D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBR and 6:SBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay (s/veh): 42.8	Intersection LOS: D
Intersection Capacity Utilization 46.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 7: I-25 SB Ramp & Plum Creek Pkwy.

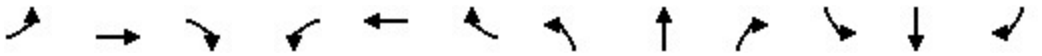




Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Group Flow (vph)	416	178	241	18	208	417	204
v/c Ratio	0.57	0.86	0.27	0.14	0.28	0.69	0.66
Control Delay (s/veh)	36.1	65.1	34.5	41.1	4.5	40.2	40.7
Queue Delay	0.0	57.9	0.0	0.0	0.0	0.0	0.3
Total Delay (s/veh)	36.1	123.0	34.5	41.1	4.5	40.2	41.0
Queue Length 50th (ft)	75	107	75	10	0	122	108
Queue Length 95th (ft)	102	m#139	m95	31	48	164	179
Internal Link Dist (ft)	1396		173				545
Turn Bay Length (ft)				375	175		
Base Capacity (vph)	1242	206	1258	177	750	858	311
Starvation Cap Reductn	0	65	0	0	0	0	0
Spillback Cap Reductn	1	0	0	0	47	18	7
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	1.26	0.19	0.10	0.30	0.50	0.67

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.



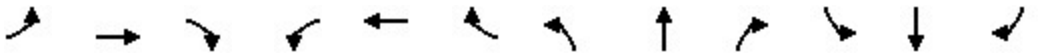
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	329	53	164	222	0	17	0	191	486	39	47
Future Volume (veh/h)	0	329	53	164	222	0	17	0	191	486	39	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	0	1870	1870	1870	1870	0	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	358	58	178	241	0	18	0	208	471	122	51
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, %	0	2	2	2	2	0	2	0	2	2	2	2
Cap, veh/h	0	554	87	223	838	0	36	0	0	2327	723	302
Arrive On Green	0.00	0.12	0.12	0.11	0.47	0.00	0.02	0.00	0.00	0.65	0.58	0.58
Sat Flow, veh/h	0	4615	701	1781	3647	0	1781	18		3563	1253	524
Grp Volume(v), veh/h	0	272	144	178	241	0	18	54.1		471	0	173
Grp Sat Flow(s),veh/h/ln	0	1702	1744	1781	1777	0	1781	D		1781	0	1776
Q Serve(g_s), s	0.0	6.8	7.1	5.0	3.7	0.0	0.9			4.8	0.0	4.1
Cycle Q Clear(g_c), s	0.0	6.8	7.1	5.0	3.7	0.0	0.9			4.8	0.0	4.1
Prop In Lane	0.00		0.40	1.00		0.00	1.00			1.00		0.29
Lane Grp Cap(c), veh/h	0	424	217	223	838	0	36			2327	0	1026
V/C Ratio(X)	0.00	0.64	0.66	0.80	0.29	0.00	0.50			0.20	0.00	0.17
Avail Cap(c_a), veh/h	0	832	426	223	1264	0	178			2327	0	1026
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00	1.00			1.00	1.00	1.00
Upstream Filter(I)	0.00	0.84	0.84	0.45	0.45	0.00	1.00			1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	37.5	37.6	34.0	19.2	0.0	43.6			6.2	0.0	8.9
Incr Delay (d2), s/veh	0.0	1.4	2.9	8.9	0.1	0.0	10.4			0.0	0.0	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.9	3.2	2.0	1.4	0.0	0.5			1.6	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	38.8	40.5	42.9	19.3	0.0	54.1			6.3	0.0	9.3
LnGrp LOS		D	D	D	B		D			A		A
Approach Vol, veh/h		416			419						644	
Approach Delay, s/veh		39.4			29.3						7.1	
Approach LOS		D			C						A	

Timer - Assigned Phs	1		3	4	5	6		8				
Phs Duration (G+Y+Rc), s	63.8		10.0	16.2	6.8	57.0		26.2				
Change Period (Y+Rc), s	5.0		5.0	5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	24.0		5.0	22.0	9.0	34.0		32.0				
Max Q Clear Time (g_c+I1), s	6.8		7.0	9.1	2.9	6.1		5.7				
Green Ext Time (p_c), s	1.6		0.0	2.1	0.0	1.0		1.5				

Intersection Summary	
HCM 7th Control Delay, s/veh	22.9
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



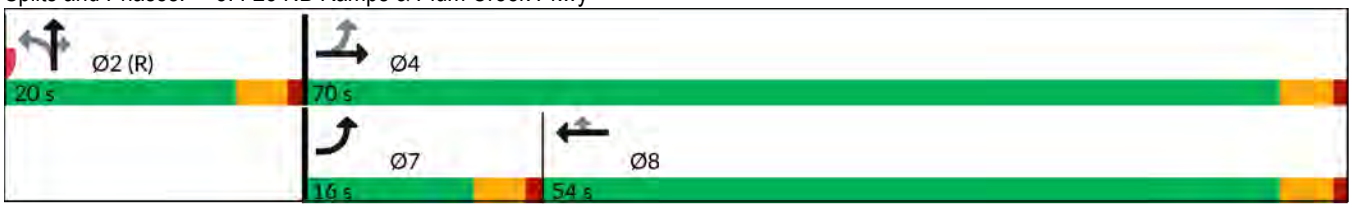
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	0.95	0.95	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.919	0.850		0.864	0.850			
Flt Protected	0.950						0.950	0.997				
Satd. Flow (prot)	1770	5085	0	0	1626	1504	1681	1460	1504	0	0	0
Flt Permitted	0.085						0.950	0.997				
Satd. Flow (perm)	158	5085	0	0	1626	1504	1681	1460	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					104	715		59	73			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		398			457			361			428	
Travel Time (s)		9.0			10.4			8.2			9.7	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	198	845	350	1104	35	2	113
Future Volume (vph)	198	845	350	1104	35	2	113
Turn Type	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	8			2	
Permitted Phases	4			8	2		2
Detector Phase	7	4	8	8	2	2	2
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	16.0	70.0	54.0	54.0	20.0	20.0	20.0
Total Split (%)	17.8%	77.8%	60.0%	60.0%	22.2%	22.2%	22.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	63.5	63.5	47.8	47.8	17.5	17.5	17.5
Actuated g/C Ratio	0.71	0.71	0.53	0.53	0.19	0.19	0.19
v/c Ratio	0.69	0.26	0.90	0.67	0.10	0.20	0.18
Control Delay (s/veh)	27.7	4.8	31.2	4.6	32.5	12.2	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.7	4.8	31.2	4.6	32.5	12.2	8.5
LOS	C	A	C	A	C	B	A
Approach Delay (s/veh)		9.2	18.5			15.0	
Approach LOS		A	B			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay (s/veh): 14.6	Intersection LOS: B
Intersection Capacity Utilization 72.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 8: I-25 NB Ramps & Plum Creek Pkwy

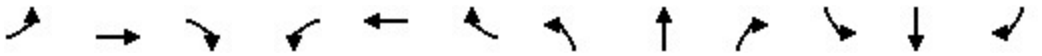




Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	215	918	824	756	34	65	64
v/c Ratio	0.69	0.26	0.90	0.67	0.10	0.20	0.18
Control Delay (s/veh)	27.7	4.8	31.2	4.6	32.5	12.2	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.7	4.8	31.2	4.6	32.5	12.2	8.5
Queue Length 50th (ft)	56	52	358	10	17	3	0
Queue Length 95th (ft)	#145	67	#651	67	45	41	30
Internal Link Dist (ft)		318	377			281	
Turn Bay Length (ft)							
Base Capacity (vph)	317	3700	941	1148	326	331	351
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.25	0.88	0.66	0.10	0.20	0.18

Intersection Summary

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

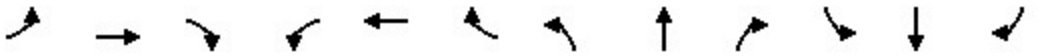


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	845	0	0	350	1104	35	2	113	0	0	0
Future Volume (veh/h)	198	845	0	0	350	1104	35	2	113	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	215	918	0	0	995	790	26	0	137			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	252	3522	0	0	1025	869	375	0	667			
Arrive On Green	0.09	0.69	0.00	0.00	0.55	0.55	0.21	0.00	0.21			
Sat Flow, veh/h	1781	5274	0	0	1870	1585	1781	0	3170			
Grp Volume(v), veh/h	215	918	0	0	995	790	26	0	137			
Grp Sat Flow(s),veh/h/ln	1781	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	6.1	6.1	0.0	0.0	46.2	40.4	1.1	0.0	3.2			
Cycle Q Clear(g_c), s	6.1	6.1	0.0	0.0	46.2	40.4	1.1	0.0	3.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	252	3522	0	0	1025	869	375	0	667			
V/C Ratio(X)	0.85	0.26	0.00	0.00	0.97	0.91	0.07	0.00	0.21			
Avail Cap(c_a), veh/h	317	3716	0	0	1029	872	375	0	667			
HCM Platoon Ratio	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	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	26.0	5.3	0.0	0.0	19.6	18.3	28.5	0.0	29.3			
Incr Delay (d2), s/veh	16.3	0.0	0.0	0.0	21.2	13.4	0.4	0.0	0.7			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.7	1.8	0.0	0.0	23.9	16.5	0.5	0.0	1.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.3	5.3	0.0	0.0	40.8	31.7	28.8	0.0	30.0			
LnGrp LOS	D	A			D	C	C		C			
Approach Vol, veh/h		1133			1785			163				
Approach Delay, s/veh		12.3			36.8			29.8				
Approach LOS		B			D			C				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		23.4		66.6			12.8	53.8				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		15.5		65.5			11.5	49.5				
Max Q Clear Time (g_c+I1), s		5.2		8.1			8.1	48.2				
Green Ext Time (p_c), s		0.4		8.2			0.2	1.1				

Intersection Summary	
HCM 7th Control Delay, s/veh	27.4
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



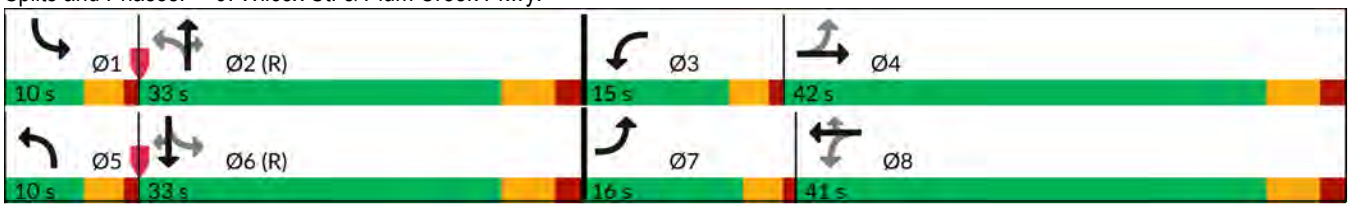
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		0	225		0	225		250	175		200
Storage Lanes	1		1	1		1	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	1863	1583	1770	1863	1583
Flt Permitted	0.105			0.342			0.655			0.683		
Satd. Flow (perm)	196	3539	1583	637	3539	1583	2367	1863	1583	1272	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			185			130			120			145
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		709			907			521			491	
Travel Time (s)		16.1			20.6			11.8			11.2	

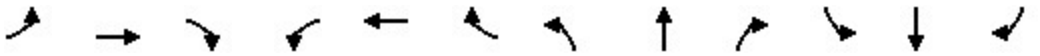
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	203	652	93	48	913	120	374	106	34	62	73	133
Future Volume (vph)	203	652	93	48	913	120	374	106	34	62	73	133
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		8	2		2	6		6
Detector Phase	7	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	31.0		9.5	31.0	31.0	9.5	36.0	36.0	9.5	34.0	34.0
Total Split (s)	16.0	42.0		15.0	41.0	41.0	10.0	33.0	33.0	10.0	33.0	33.0
Total Split (%)	16.0%	42.0%		15.0%	41.0%	41.0%	10.0%	33.0%	33.0%	10.0%	33.0%	33.0%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.0		1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	51.2	40.2	100.0	42.4	33.4	33.4	37.7	30.5	30.5	35.7	27.6	27.6
Actuated g/C Ratio	0.51	0.40	1.00	0.42	0.33	0.33	0.38	0.31	0.31	0.36	0.28	0.28
v/c Ratio	0.77	0.50	0.06	0.15	0.84	0.21	0.42	0.20	0.07	0.14	0.15	0.27
Control Delay (s/veh)	38.8	24.2	0.1	13.0	38.1	5.0	23.1	28.9	0.2	20.1	28.8	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	38.8	24.2	0.1	13.0	38.1	5.0	23.1	28.9	0.2	20.1	28.8	6.3
LOS	D	C	A	B	D	A	C	C	A	C	C	A
Approach Delay (s/veh)		24.9			33.3			22.8			15.6	
Approach LOS		C			C			C			B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay (s/veh): 26.9	Intersection LOS: C
Intersection Capacity Utilization 67.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Wilcox St. & Plum Creek Pkwy.

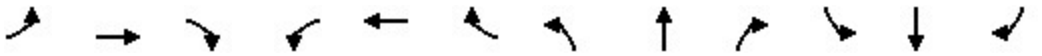




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	221	709	101	52	992	130	407	115	37	67	79	145
v/c Ratio	0.77	0.50	0.06	0.15	0.84	0.21	0.42	0.20	0.07	0.14	0.15	0.27
Control Delay (s/veh)	38.8	24.2	0.1	13.0	38.1	5.0	23.1	28.9	0.2	20.1	28.8	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	38.8	24.2	0.1	13.0	38.1	5.0	23.1	28.9	0.2	20.1	28.8	6.3
Queue Length 50th (ft)	80	174	0	15	297	0	91	57	0	27	38	0
Queue Length 95th (ft)	#193	235	0	34	378	39	127	104	0	55	76	46
Internal Link Dist (ft)		629			827			441			411	
Turn Bay Length (ft)	325			225			225		250	175		200
Base Capacity (vph)	289	1424	1583	420	1238	638	968	569	567	486	514	542
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	0.76	0.50	0.06	0.12	0.80	0.20	0.42	0.20	0.07	0.14	0.15	0.27

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)	203	652	93	48	913	120	374	106	34	62	73	133
Future Volume (veh/h)	203	652	93	48	913	120	374	106	34	62	73	133
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	221	709	0	52	992	130	407	115	37	67	79	145
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	280	1362		310	1141	509	999	629	533	509	596	505
Arrive On Green	0.10	0.38	0.00	0.04	0.32	0.32	0.06	0.34	0.34	0.04	0.32	0.32
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	221	709	0	52	992	130	407	115	37	67	79	145
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	7.9	15.4	0.0	1.9	26.3	6.1	6.0	4.3	1.6	2.5	3.0	6.9
Cycle Q Clear(g_c), s	7.9	15.4	0.0	1.9	26.3	6.1	6.0	4.3	1.6	2.5	3.0	6.9
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	280	1362		310	1141	509	999	629	533	509	596	505
V/C Ratio(X)	0.79	0.52		0.17	0.87	0.26	0.41	0.18	0.07	0.13	0.13	0.29
Avail Cap(c_a), veh/h	315	1362		438	1244	555	999	629	533	541	596	505
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)	0.94	0.94	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	23.8	0.0	21.6	32.0	25.1	22.7	23.5	22.5	21.3	24.2	25.6
Incr Delay (d2), s/veh	10.8	0.3	0.0	0.3	6.4	0.3	0.3	0.6	0.3	0.1	0.5	1.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	6.4	0.0	0.8	12.0	2.3	0.0	2.0	0.6	1.0	1.4	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.1	24.1	0.0	21.8	38.4	25.4	23.0	24.1	22.8	21.4	24.7	27.0
LnGrp LOS	C	C		C	D	C	C	C	C	C	C	C
Approach Vol, veh/h		930			1174			559			291	
Approach Delay, s/veh		26.5			36.2			23.2			25.1	
Approach LOS		C			D			C			C	

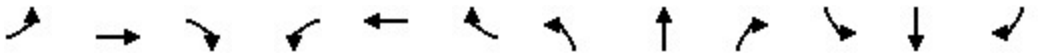
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	39.6	7.8	44.3	10.0	37.9	14.0	38.1
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	6.0	27.0	11.0	36.0	6.0	27.0	12.0	35.0
Max Q Clear Time (g_c+I1), s	4.5	6.3	3.9	17.4	8.0	8.9	9.9	28.3
Green Ext Time (p_c), s	0.0	0.6	0.0	4.8	0.0	0.8	0.1	3.8

Intersection Summary	
HCM 7th Control Delay, s/veh	29.6
HCM 7th LOS	C

Notes

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

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



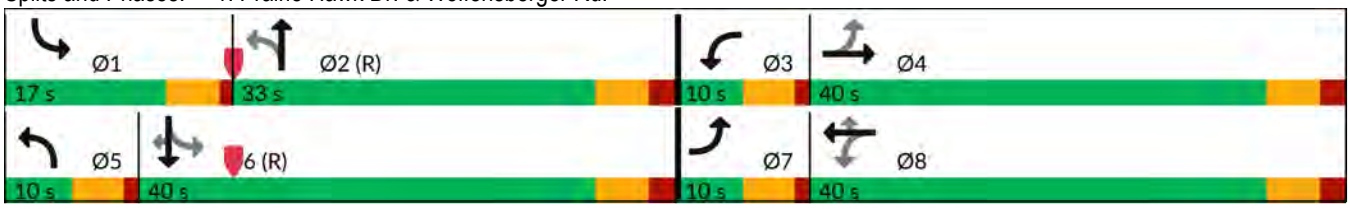
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		325	125		100	225		0	350		350
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.993				0.850		0.877				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3514	0	1770	3539	1583	1770	1634	0	1770	1863	1583
Flt Permitted	0.419			0.369			0.734			0.484		
Satd. Flow (perm)	780	3514	0	687	3539	1583	1367	1634	0	902	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5				210		220				142
Link Speed (mph)		40			40			30			45	
Link Distance (ft)		922			1021			638			586	
Travel Time (s)		15.7			17.4			14.5			8.9	

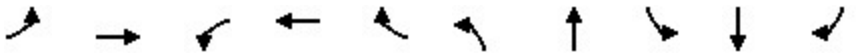
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	50	343	98	362	193	27	44	221	32	102
Future Volume (vph)	50	343	98	362	193	27	44	221	32	102
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases	4		8		8	2		6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	38.0	10.0	40.0	40.0	10.0	33.0	10.0	32.0	32.0
Total Split (s)	10.0	40.0	10.0	40.0	40.0	10.0	33.0	17.0	40.0	40.0
Total Split (%)	10.0%	40.0%	10.0%	40.0%	40.0%	10.0%	33.0%	17.0%	40.0%	40.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	2.0	1.0	2.0	2.0	1.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	5.0	6.0	6.0	5.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	23.1	17.1	24.1	19.1	19.1	51.3	44.1	61.9	53.9	53.9
Actuated g/C Ratio	0.23	0.17	0.24	0.19	0.19	0.51	0.44	0.62	0.54	0.54
v/c Ratio	0.24	0.65	0.49	0.58	0.44	0.04	0.32	0.36	0.03	0.12
Control Delay (s/veh)	27.7	42.7	35.3	40.6	8.0	9.6	6.2	10.8	14.5	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.7	42.7	35.3	40.6	8.0	9.6	6.2	10.8	14.5	1.8
LOS	C	D	D	D	A	A	A	B	B	A
Approach Delay (s/veh)		40.9		30.1			6.5		8.6	
Approach LOS		D		C			A		A	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay (s/veh): 24.4	Intersection LOS: C
Intersection Capacity Utilization 60.8%	ICU Level of Service B
Analysis Period (min) 15	

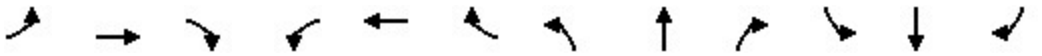
Splits and Phases: 1: Prairie Hawk Dr. & Wolfensberger Rd.





Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	54	391	107	393	210	29	268	240	35	111
v/c Ratio	0.24	0.65	0.49	0.58	0.44	0.04	0.32	0.36	0.03	0.12
Control Delay (s/veh)	27.7	42.7	35.3	40.6	8.0	9.6	6.2	10.8	14.5	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.7	42.7	35.3	40.6	8.0	9.6	6.2	10.8	14.5	1.8
Queue Length 50th (ft)	25	121	52	123	0	7	17	63	11	0
Queue Length 95th (ft)	51	160	88	163	58	20	79	115	31	19
Internal Link Dist (ft)		842		941			558		506	
Turn Bay Length (ft)	325		125		100	225		350		350
Base Capacity (vph)	229	1198	219	1203	676	725	842	672	1004	918
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.33	0.49	0.33	0.31	0.04	0.32	0.36	0.03	0.12

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	343	17	98	362	193	27	44	202	221	32	102
Future Volume (veh/h)	50	343	17	98	362	193	27	44	202	221	32	102
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	54	373	18	107	393	210	29	48	220	240	35	111
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	201	568	27	224	624	278	716	140	641	644	1006	852
Arrive On Green	0.04	0.16	0.16	0.05	0.18	0.18	0.03	0.48	0.48	0.09	0.54	0.54
Sat Flow, veh/h	1781	3451	166	1781	3554	1585	1781	292	1338	1781	1870	1585
Grp Volume(v), veh/h	54	192	199	107	393	210	29	0	268	240	35	111
Grp Sat Flow(s),veh/h/ln	1781	1777	1840	1781	1777	1585	1781	0	1630	1781	1870	1585
Q Serve(g_s), s	2.5	10.1	10.2	5.0	10.2	12.6	0.8	0.0	10.3	6.5	0.9	3.5
Cycle Q Clear(g_c), s	2.5	10.1	10.2	5.0	10.2	12.6	0.8	0.0	10.3	6.5	0.9	3.5
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.82	1.00		1.00
Lane Grp Cap(c), veh/h	201	292	303	224	624	278	716	0	780	644	1006	852
V/C Ratio(X)	0.27	0.66	0.66	0.48	0.63	0.75	0.04	0.00	0.34	0.37	0.03	0.13
Avail Cap(c_a), veh/h	221	604	626	224	1208	539	756	0	780	704	1006	852
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	39.1	39.1	33.4	38.2	39.2	12.4	0.0	16.3	10.9	10.9	11.5
Incr Delay (d2), s/veh	0.7	2.5	2.4	1.6	1.1	4.1	0.0	0.0	1.2	0.4	0.1	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	4.5	4.7	2.2	4.4	5.1	0.3	0.0	4.0	2.3	0.3	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.9	41.6	41.6	35.0	39.3	43.3	12.4	0.0	17.5	11.2	10.9	11.8
LnGrp LOS	C	D	D	D	D	D	B		B	B	B	B
Approach Vol, veh/h		445			710			297			386	
Approach Delay, s/veh		40.7			39.8			17.0			11.4	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	53.9	10.0	22.5	7.8	59.8	8.9	23.6
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	12.0	27.0	5.0	34.0	5.0	34.0	5.0	34.0
Max Q Clear Time (g_c+I1), s	8.5	12.3	7.0	12.2	2.8	5.5	4.5	14.6
Green Ext Time (p_c), s	0.2	1.4	0.0	2.0	0.0	0.5	0.0	3.0

Intersection Summary	
HCM 7th Control Delay, s/veh	30.4
HCM 7th LOS	C

Notes

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



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.999				0.904	
Flt Protected	0.953			0.999		
Satd. Flow (prot)	1773	0	0	1861	1684	0
Flt Permitted	0.953			0.999		
Satd. Flow (perm)	1773	0	0	1861	1684	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	671			479	638	
Travel Time (s)	15.3			10.9	14.5	

Intersection Summary	
Area Type:	Other

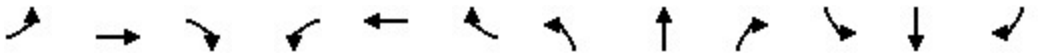
Intersection	
Int Delay, s/veh	4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	142	1	3	100	44	109
Future Vol, veh/h	142	1	3	100	44	109
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	154	1	3	109	48	118

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	222	107	166	0	-	0
Stage 1	107	-	-	-	-	-
Stage 2	115	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	766	947	1412	-	-	-
Stage 1	917	-	-	-	-	-
Stage 2	910	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	764	947	1412	-	-	-
Mov Cap-2 Maneuver	764	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	910	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.9	0.22	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	52	-	765	-	-
HCM Lane V/C Ratio	0.002	-	0.203	-	-
HCM Control Delay (s/veh)	7.6	0	10.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.8	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.895									0.865	
Flt Protected		0.996			0.992			0.953				
Satd. Flow (prot)	0	1660	0	0	1848	0	0	1775	0	0	1611	0
Flt Permitted		0.996			0.992			0.953				
Satd. Flow (perm)	0	1660	0	0	1848	0	0	1775	0	0	1611	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		479			909			1975			245	
Travel Time (s)		10.9			20.7			44.9			5.6	

Intersection Summary	
Area Type:	Other

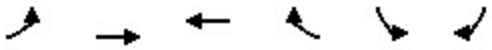
Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	7	42	1	5	0	77	1	0	0	0	15
Future Vol, veh/h	5	7	42	1	5	0	77	1	0	0	0	15
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	5	8	46	1	5	0	84	1	0	0	0	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	5	0	0	53	0	0	49	49	30	27	72	5
Stage 1	-	-	-	-	-	-	41	41	-	8	8	-
Stage 2	-	-	-	-	-	-	8	8	-	19	64	-
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	1616	-	-	1552	-	-	951	843	1044	983	819	1078
Stage 1	-	-	-	-	-	-	973	861	-	1014	889	-
Stage 2	-	-	-	-	-	-	1014	889	-	1000	841	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1616	-	-	1552	-	-	933	839	1044	978	815	1078
Mov Cap-2 Maneuver	-	-	-	-	-	-	933	839	-	978	815	-
Stage 1	-	-	-	-	-	-	970	858	-	1013	889	-
Stage 2	-	-	-	-	-	-	998	889	-	995	839	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.67	1.22	9.25	8.39
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	932	142	-	-	300	-	-	1078
HCM Lane V/C Ratio	0.091	0.003	-	-	0.001	-	-	0.015
HCM Control Delay (s/veh)	9.3	7.2	0	-	7.3	0	-	8.4
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	150			0	150	0
Storage Lanes	0			0	0	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.975		0.902	
Flt Protected		0.989			0.987	
Satd. Flow (prot)	0	1842	1816	0	1658	0
Flt Permitted		0.989			0.987	
Satd. Flow (perm)	0	1842	1816	0	1658	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		340	1975		832	
Travel Time (s)		7.7	44.9		18.9	

Intersection Summary	
Area Type:	Other

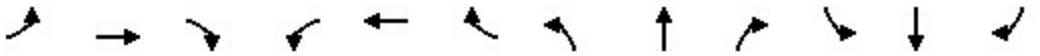
Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	30	17	4	3	7
Future Vol, veh/h	8	30	17	4	3	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	33	18	4	3	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	23	0	-	0	71	21
Stage 1	-	-	-	-	21	-
Stage 2	-	-	-	-	50	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1592	-	-	-	934	1057
Stage 1	-	-	-	-	1002	-
Stage 2	-	-	-	-	972	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1592	-	-	-	928	1057
Mov Cap-2 Maneuver	-	-	-	-	928	-
Stage 1	-	-	-	-	996	-
Stage 2	-	-	-	-	972	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.53	0	8.59
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	379	-	-	-	1015
HCM Lane V/C Ratio	0.005	-	-	-	0.011
HCM Control Delay (s/veh)	7.3	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0



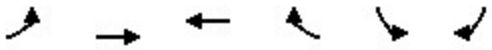
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	250		0	125		0	175		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.958			0.934			0.989			0.982	
Flt Protected		0.996			0.995			0.992			0.987	
Satd. Flow (prot)	0	3377	0	0	3289	0	0	3472	0	0	3430	0
Flt Permitted		0.996			0.995			0.992			0.987	
Satd. Flow (perm)	0	3377	0	0	3289	0	0	3472	0	0	3430	0
Link Speed (mph)		40			35			45			45	
Link Distance (ft)		631			610			567			842	
Travel Time (s)		10.8			11.9			8.6			12.8	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	4.5
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	188	284	298	323
Demand Flow Rate, veh/h	191	291	304	330
Vehicles Circulating, veh/h	318	297	221	210
Vehicles Exiting, veh/h	222	228	288	378
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.3	4.7	4.4	4.4
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.471	0.529	0.471	0.529	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	90	101	137	154	143	161	155	175
Cap Entry Lane, veh/h	1007	1084	1027	1103	1102	1177	1113	1188
Entry HV Adj Factor	0.980	0.984	0.976	0.979	0.981	0.982	0.979	0.978
Flow Entry, veh/h	88	99	134	151	140	158	152	171
Cap Entry, veh/h	987	1067	1002	1080	1080	1156	1090	1162
V/C Ratio	0.089	0.093	0.133	0.140	0.130	0.137	0.139	0.147
Control Delay, s/veh	4.5	4.2	4.8	4.6	4.5	4.3	4.5	4.4
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	0	0	0	0	0	0	0	1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.967		0.994	
Flt Protected		0.999			0.954	
Satd. Flow (prot)	0	1861	1801	0	1766	0
Flt Permitted		0.999			0.954	
Satd. Flow (perm)	0	1861	1801	0	1766	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		350	935		1177	
Travel Time (s)		8.0	21.3		26.8	

Intersection Summary	
Area Type:	Other

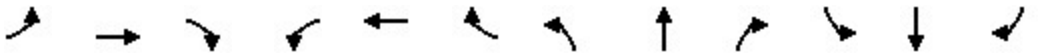
Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	255	285	94	84	4
Future Vol, veh/h	6	255	285	94	84	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	277	310	102	91	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	412	0	-	0	651	361
Stage 1	-	-	-	-	361	-
Stage 2	-	-	-	-	290	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1147	-	-	-	433	684
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	759	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1147	-	-	-	430	684
Mov Cap-2 Maneuver	-	-	-	-	430	-
Stage 1	-	-	-	-	701	-
Stage 2	-	-	-	-	759	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.19	0	15.51
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	41	-	-	-	438
HCM Lane V/C Ratio	0.006	-	-	-	0.219
HCM Control Delay (s/veh)	8.2	0	-	-	15.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.8



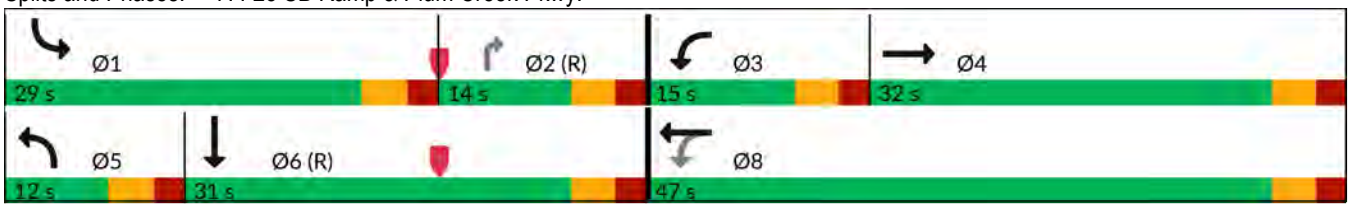
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		0	0		0	375		175	0		175
Storage Lanes	1		0	1		0	1		0	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt		0.985							0.850		0.982	
Flt Protected				0.950			0.950			0.950	0.977	
Satd. Flow (prot)	0	5009	0	1770	3539	0	1770	0	1583	3221	1626	0
Flt Permitted				0.303			0.950			0.950	0.977	
Satd. Flow (perm)	0	5009	0	564	3539	0	1770	0	1583	3221	1626	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22							206		7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1484			253			667			625	
Travel Time (s)		33.7			5.8			15.2			14.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	339	266	321	17	182	939	157
Future Volume (vph)	339	266	321	17	182	939	157
Turn Type	NA	pm+pt	NA	Prot	Perm	Prot	NA
Protected Phases	4	3	8	5		1	6
Permitted Phases		8			2		
Detector Phase	4	3	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	10.0	22.5	10.0	22.5	10.0	22.5
Total Split (s)	32.0	15.0	47.0	12.0	14.0	29.0	31.0
Total Split (%)	35.6%	16.7%	52.2%	13.3%	15.6%	32.2%	34.4%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lead		Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.7	27.7	27.7	6.5	17.4	29.9	29.9
Actuated g/C Ratio	0.14	0.31	0.31	0.07	0.19	0.33	0.33
v/c Ratio	0.57	0.94	0.32	0.14	0.42	0.77	0.76
Control Delay (s/veh)	49.0	62.8	30.3	41.1	8.2	32.1	35.9
Queue Delay	0.0	47.2	0.2	0.0	0.1	0.2	0.3
Total Delay (s/veh)	49.0	110.0	30.5	41.1	8.3	32.3	36.2
LOS	D	F	C	D	A	C	D
Approach Delay (s/veh)	49.0		66.5				33.6
Approach LOS	D		E				C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBR and 6:SBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay (s/veh): 42.6	Intersection LOS: D
Intersection Capacity Utilization 62.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 7: I-25 SB Ramp & Plum Creek Pkwy.

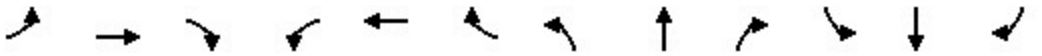




Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Group Flow (vph)	410	289	349	18	198	827	415
v/c Ratio	0.57	0.94	0.32	0.14	0.42	0.77	0.76
Control Delay (s/veh)	49.0	62.8	30.3	41.1	8.2	32.1	35.9
Queue Delay	0.0	47.2	0.2	0.0	0.1	0.2	0.3
Total Delay (s/veh)	49.0	110.0	30.5	41.1	8.3	32.3	36.2
Queue Length 50th (ft)	91	173	107	10	0	228	225
Queue Length 95th (ft)	124	m#208	m124	31	58	276	318
Internal Link Dist (ft)	1404		173				545
Turn Bay Length (ft)				375	175		
Base Capacity (vph)	1518	307	1651	141	472	1071	545
Starvation Cap Reductn	0	92	632	0	0	0	0
Spillback Cap Reductn	34	0	0	0	20	21	11
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	1.34	0.34	0.13	0.44	0.79	0.78

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)	0	339	39	266	321	0	17	0	182	939	157	46
Future Volume (veh/h)	0	339	39	266	321	0	17	0	182	939	157	46
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	0	1870	1870	1870	1870	0	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	368	42	289	349	0	18	0	198	925	306	50
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, %	0	2	2	2	2	0	2	0	2	2	2	2
Cap, veh/h	0	596	67	325	1047	0	36	0	0	2117	813	133
Arrive On Green	0.00	0.04	0.04	0.22	0.59	0.00	0.02	0.00	0.00	0.59	0.52	0.52
Sat Flow, veh/h	0	4827	522	1781	3647	0	1781	18		3563	1568	256
Grp Volume(v), veh/h	0	267	143	289	349	0	18	54.1		925	0	356
Grp Sat Flow(s),veh/h/ln	0	1702	1776	1781	1777	0	1781	D		1781	0	1824
Q Serve(g_s), s	0.0	6.9	7.1	10.0	4.5	0.0	0.9			12.8	0.0	10.5
Cycle Q Clear(g_c), s	0.0	6.9	7.1	10.0	4.5	0.0	0.9			12.8	0.0	10.5
Prop In Lane	0.00		0.29	1.00		0.00	1.00			1.00		0.14
Lane Grp Cap(c), veh/h	0	436	227	325	1047	0	36			2117	0	946
V/C Ratio(X)	0.00	0.61	0.63	0.89	0.33	0.00	0.50			0.44	0.00	0.38
Avail Cap(c_a), veh/h	0	1021	533	325	1658	0	139			2117	0	946
HCM Platoon Ratio	1.00	0.33	0.33	2.00	2.00	1.00	1.00			1.00	1.00	1.00
Upstream Filter(I)	0.00	0.58	0.58	0.40	0.40	0.00	1.00			1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	40.9	41.0	28.6	14.0	0.0	43.6			10.0	0.0	13.0
Incr Delay (d2), s/veh	0.0	0.8	1.7	11.7	0.1	0.0	10.4			0.1	0.0	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.1	3.4	5.6	1.6	0.0	0.5			4.6	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	41.7	42.7	40.4	14.0	0.0	54.1			10.1	0.0	14.1
LnGrp LOS		D	D	D	B		D			B		B
Approach Vol, veh/h		410			638						1281	
Approach Delay, s/veh		42.1			26.0						11.2	
Approach LOS		D			C						B	

Timer - Assigned Phs	1		3	4	5	6		8				
Phs Duration (G+Y+Rc), s	58.5		15.0	16.5	6.8	51.7		31.5				
Change Period (Y+Rc), s	5.0		5.0	5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	24.0		10.0	27.0	7.0	26.0		42.0				
Max Q Clear Time (g_c+I1), s	14.8		12.0	9.1	2.9	12.5		6.5				
Green Ext Time (p_c), s	2.7		0.0	2.4	0.0	1.8		2.5				

Intersection Summary	
HCM 7th Control Delay, s/veh	21.0
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

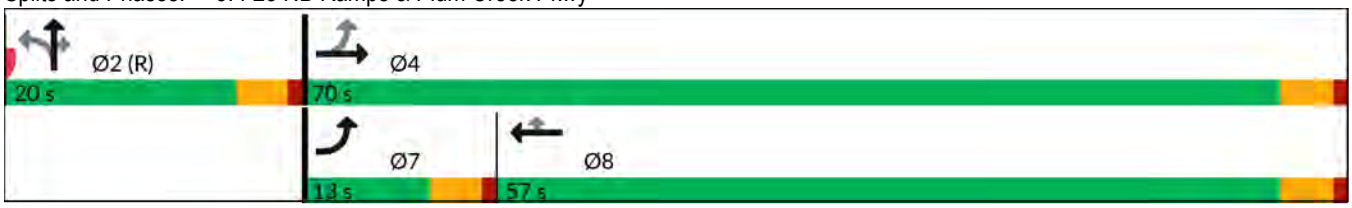
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	0.95	0.95	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.947	0.850		0.868	0.850			
Flt Protected	0.950						0.950	0.996				
Satd. Flow (prot)	1770	5085	0	0	1676	1504	1681	1465	1504	0	0	0
Flt Permitted	0.071						0.950	0.996				
Satd. Flow (perm)	132	5085	0	0	1676	1504	1681	1465	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					52	773		60	73			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		396			673			450			375	
Travel Time (s)		9.0			15.3			10.2			8.5	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	153	1276	550	1074	46	3	118
Future Volume (vph)	153	1276	550	1074	46	3	118
Turn Type	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	8			2	
Permitted Phases	4			8	2		2
Detector Phase	7	4	8	8	2	2	2
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	13.0	70.0	57.0	57.0	20.0	20.0	20.0
Total Split (%)	14.4%	77.8%	63.3%	63.3%	22.2%	22.2%	22.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	64.9	64.9	51.9	51.9	16.1	16.1	16.1
Actuated g/C Ratio	0.72	0.72	0.58	0.58	0.18	0.18	0.18
v/c Ratio	0.67	0.38	0.94	0.70	0.15	0.22	0.21
Control Delay (s/veh)	28.7	5.1	34.8	5.0	33.2	12.8	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.7	5.1	34.8	5.0	33.2	12.8	9.3
LOS	C	A	C	A	C	B	A
Approach Delay (s/veh)		7.6	20.6			16.6	
Approach LOS		A	C			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay (s/veh): 14.6	Intersection LOS: B
Intersection Capacity Utilization 74.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 8: I-25 NB Ramps & Plum Creek Pkwy

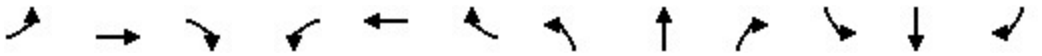




Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	166	1387	925	840	45	68	68
v/c Ratio	0.67	0.38	0.94	0.70	0.15	0.22	0.21
Control Delay (s/veh)	28.7	5.1	34.8	5.0	33.2	12.8	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.7	5.1	34.8	5.0	33.2	12.8	9.3
Queue Length 50th (ft)	38	89	444	15	23	4	0
Queue Length 95th (ft)	#121	109	#765	80	55	43	34
Internal Link Dist (ft)		316	593			370	
Turn Bay Length (ft)							
Base Capacity (vph)	249	3700	999	1199	301	311	329
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.37	0.93	0.70	0.15	0.22	0.21

Intersection Summary

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



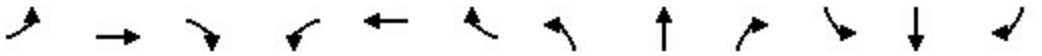
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	1276	0	0	550	1074	46	3	118	0	0	0
Future Volume (veh/h)	153	1276	0	0	550	1074	46	3	118	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	166	1387	0	0	1025	883	34	0	147			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	203	3516	0	0	1083	917	377	0	670			
Arrive On Green	0.06	0.69	0.00	0.00	0.58	0.58	0.21	0.00	0.21			
Sat Flow, veh/h	1781	5274	0	0	1870	1585	1781	0	3170			
Grp Volume(v), veh/h	166	1387	0	0	1025	883	34	0	147			
Grp Sat Flow(s),veh/h/ln	1781	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	3.3	10.5	0.0	0.0	46.0	47.7	1.4	0.0	3.5			
Cycle Q Clear(g_c), s	3.3	10.5	0.0	0.0	46.0	47.7	1.4	0.0	3.5			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	203	3516	0	0	1083	917	377	0	670			
V/C Ratio(X)	0.82	0.39	0.00	0.00	0.95	0.96	0.09	0.00	0.22			
Avail Cap(c_a), veh/h	264	3716	0	0	1091	925	377	0	670			
HCM Platoon Ratio	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	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	22.4	6.0	0.0	0.0	17.7	18.0	28.5	0.0	29.3			
Incr Delay (d2), s/veh	14.3	0.1	0.0	0.0	16.0	20.9	0.5	0.0	0.8			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.8	3.1	0.0	0.0	22.2	20.6	0.6	0.0	1.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.7	6.1	0.0	0.0	33.7	38.9	29.0	0.0	30.1			
LnGrp LOS	D	A			C	D	C		C			
Approach Vol, veh/h		1553			1908			181				
Approach Delay, s/veh		9.3			36.1			29.9				
Approach LOS		A			D			C				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		23.5		66.5			9.9	56.6				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		15.5		65.5			8.5	52.5				
Max Q Clear Time (g_c+I1), s		5.5		12.5			5.3	49.7				
Green Ext Time (p_c), s		0.4		15.1			0.1	2.4				

Intersection Summary												
HCM 7th Control Delay, s/veh			24.4									
HCM 7th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



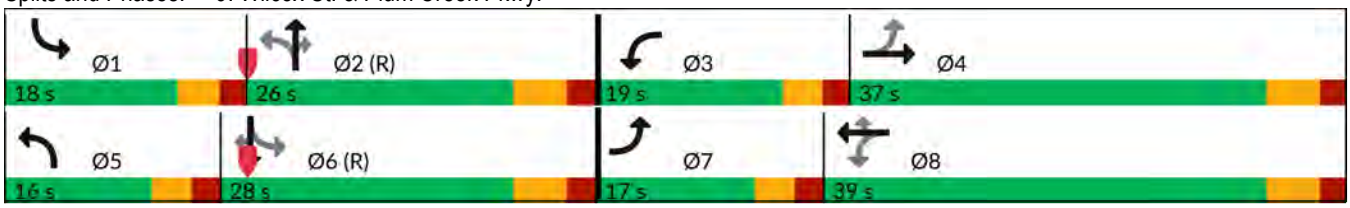
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		0	225		0	225		250	175		200
Storage Lanes	1		1	1		1	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	1863	1583	1770	1863	1583
Flt Permitted	0.114			0.118			0.684			0.596		
Satd. Flow (perm)	212	3539	1583	220	3539	1583	2472	1863	1583	1110	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			207			142			142			254
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		709			907			521			491	
Travel Time (s)		16.1			20.6			11.8			11.2	

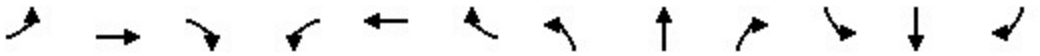
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	246	1112	71	66	871	110	475	140	59	176	105	234
Future Volume (vph)	246	1112	71	66	871	110	475	140	59	176	105	234
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		8	2		2	6		6
Detector Phase	7	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	36.0		10.0	31.0	31.0	10.0	36.0	36.0	10.0	29.0	29.0
Total Split (s)	17.0	37.0		19.0	39.0	39.0	16.0	26.0	26.0	18.0	28.0	28.0
Total Split (%)	17.0%	37.0%		19.0%	39.0%	39.0%	16.0%	26.0%	26.0%	18.0%	28.0%	28.0%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0		5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	50.1	39.6	100.0	41.6	33.0	33.0	33.3	21.3	21.3	34.7	22.0	22.0
Actuated g/C Ratio	0.50	0.40	1.00	0.42	0.33	0.33	0.33	0.21	0.21	0.35	0.22	0.22
v/c Ratio	0.91	0.86	0.05	0.35	0.81	0.19	0.56	0.38	0.14	0.41	0.28	0.47
Control Delay (s/veh)	58.2	36.8	0.1	17.9	37.3	3.6	25.5	37.7	0.7	24.1	34.6	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.2	36.8	0.1	17.9	37.3	3.6	25.5	37.7	0.7	24.1	34.6	7.3
LOS	E	D	A	B	D	A	C	D	A	C	C	A
Approach Delay (s/veh)		38.7			32.5			25.8			18.6	
Approach LOS		D			C			C			B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay (s/veh): 31.7	Intersection LOS: C
Intersection Capacity Utilization 75.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 9: Wilcox St. & Plum Creek Pkwy.

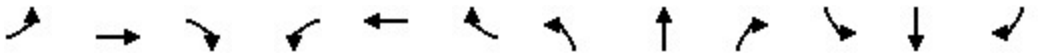




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	267	1209	77	72	947	120	516	152	64	191	114	254
v/c Ratio	0.91	0.86	0.05	0.35	0.81	0.19	0.56	0.38	0.14	0.41	0.28	0.47
Control Delay (s/veh)	58.2	36.8	0.1	17.9	37.3	3.6	25.5	37.7	0.7	24.1	34.6	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.2	36.8	0.1	17.9	37.3	3.6	25.5	37.7	0.7	24.1	34.6	7.3
Queue Length 50th (ft)	112	379	0	22	288	0	119	85	0	82	61	0
Queue Length 95th (ft)	#269	#541	0	45	367	28	162	146	0	135	110	63
Internal Link Dist (ft)		629			827			441			411	
Turn Bay Length (ft)	325			225			225		250	175		200
Base Capacity (vph)	293	1400	1583	322	1167	617	929	397	449	485	409	546
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.86	0.05	0.22	0.81	0.19	0.56	0.38	0.14	0.39	0.28	0.47

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)	246	1112	71	66	871	110	475	140	59	176	105	234
Future Volume (veh/h)	246	1112	71	66	871	110	475	140	59	176	105	234
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	267	1209	0	72	947	120	516	152	64	191	114	254
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	310	1350		177	1084	483	913	481	408	472	462	391
Arrive On Green	0.12	0.38	0.00	0.04	0.30	0.30	0.11	0.26	0.26	0.10	0.25	0.25
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	267	1209	0	72	947	120	516	152	64	191	114	254
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	9.8	32.0	0.0	2.7	25.2	5.7	11.0	6.6	3.1	7.9	4.9	14.4
Cycle Q Clear(g_c), s	9.8	32.0	0.0	2.7	25.2	5.7	11.0	6.6	3.1	7.9	4.9	14.4
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	310	1350		177	1084	483	913	481	408	472	462	391
V/C Ratio(X)	0.86	0.90		0.41	0.87	0.25	0.56	0.32	0.16	0.40	0.25	0.65
Avail Cap(c_a), veh/h	314	1350		349	1173	523	913	481	408	527	462	391
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)	0.78	0.78	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	29.1	0.0	25.7	32.9	26.1	24.6	30.0	28.7	24.1	30.2	33.8
Incr Delay (d2), s/veh	16.8	6.5	0.0	1.5	7.1	0.3	0.8	1.7	0.8	0.6	1.3	8.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	14.4	0.0	1.2	11.7	2.2	4.6	3.2	1.3	3.3	2.4	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.1	35.7	0.0	27.2	40.1	26.4	25.4	31.7	29.6	24.7	31.5	41.9
LnGrp LOS	D	D		C	D	C	C	C	C	C	C	D
Approach Vol, veh/h		1476			1139			732			559	
Approach Delay, s/veh		36.5			37.8			27.1			33.9	
Approach LOS		D			D			C			C	

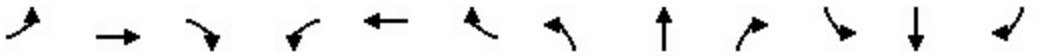
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	31.7	9.3	44.0	16.0	30.7	16.8	36.5
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	13.0	20.0	14.0	31.0	11.0	22.0	12.0	33.0
Max Q Clear Time (g_c+I1), s	9.9	8.6	4.7	34.0	13.0	16.4	11.8	27.2
Green Ext Time (p_c), s	0.2	0.7	0.1	0.0	0.0	0.8	0.0	3.2

Intersection Summary	
HCM 7th Control Delay, s/veh	34.7
HCM 7th LOS	C

Notes

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

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



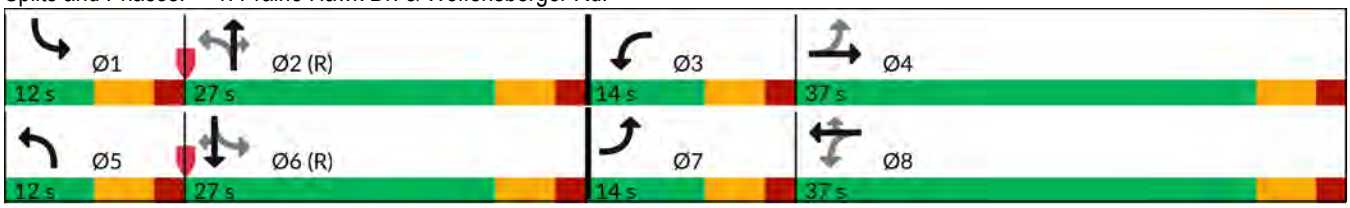
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		325	125		100	225		150	350		350
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.983				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3479	0	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.617			0.293			0.666			0.575		
Satd. Flow (perm)	1149	3479	0	546	3539	1583	1241	1863	1583	1071	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17				182			182			182
Link Speed (mph)		40			40			30			45	
Link Distance (ft)		922			1021			638			808	
Travel Time (s)		15.7			17.4			14.5			12.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	84	411	204	198	167	20	75	137	214	132	40
Future Volume (vph)	84	411	204	198	167	20	75	137	214	132	40
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	33.0	11.0	40.0	40.0	11.0	33.0	33.0	11.0	32.0	32.0
Total Split (s)	14.0	37.0	14.0	37.0	37.0	12.0	27.0	27.0	12.0	27.0	27.0
Total Split (%)	15.6%	41.1%	15.6%	41.1%	41.1%	13.3%	30.0%	30.0%	13.3%	30.0%	30.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	25.9	18.4	27.7	21.3	21.3	34.1	28.0	28.0	45.6	40.5	40.5
Actuated g/C Ratio	0.29	0.20	0.31	0.24	0.24	0.38	0.31	0.31	0.51	0.45	0.45
v/c Ratio	0.24	0.70	0.80	0.26	0.35	0.04	0.14	0.24	0.37	0.17	0.05
Control Delay (s/veh)	20.1	37.1	45.0	29.2	6.5	14.0	26.0	3.7	15.5	18.8	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
Total Delay (s/veh)	20.1	37.1	45.0	29.2	6.5	14.0	26.0	3.7	15.5	18.8	0.1
LOS	C	D	D	C	A	B	C	A	B	B	A
Approach Delay (s/veh)		34.5		28.2			11.8			15.0	
Approach LOS		C		C			B			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay (s/veh): 25.1	Intersection LOS: C
Intersection Capacity Utilization 57.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Prairie Hawk Dr. & Wolfensberger Rd.

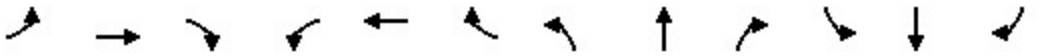




Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	91	505	222	215	182	22	82	149	233	143	43
v/c Ratio	0.24	0.70	0.80	0.26	0.35	0.04	0.14	0.24	0.37	0.17	0.05
Control Delay (s/veh)	20.1	37.1	45.0	29.2	6.5	14.0	26.0	3.7	15.5	18.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.1	37.1	45.0	29.2	6.5	14.0	26.0	3.7	15.5	18.8	0.1
Queue Length 50th (ft)	35	136	92	55	0	6	33	0	71	41	0
Queue Length 95th (ft)	61	176	#137	80	49	20	76	30	134	109	0
Internal Link Dist (ft)		842		941			558			728	
Turn Bay Length (ft)	325		125		100	225		150	350		350
Base Capacity (vph)	391	1209	276	1218	664	510	579	617	633	838	812
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.42	0.80	0.18	0.27	0.04	0.14	0.24	0.37	0.17	0.05

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)	84	411	53	204	198	167	20	75	137	214	132	40
Future Volume (veh/h)	84	411	53	204	198	167	20	75	137	214	132	40
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	91	447	58	222	215	182	22	82	149	233	143	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	346	587	76	284	773	345	587	734	622	618	815	690
Arrive On Green	0.06	0.19	0.19	0.09	0.22	0.22	0.02	0.39	0.39	0.07	0.44	0.44
Sat Flow, veh/h	1781	3165	409	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	91	250	255	222	215	182	22	82	149	233	143	43
Grp Sat Flow(s),veh/h/ln	1781	1777	1797	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	3.7	12.0	12.1	8.0	4.5	9.1	0.7	2.5	5.7	6.0	4.2	1.4
Cycle Q Clear(g_c), s	3.7	12.0	12.1	8.0	4.5	9.1	0.7	2.5	5.7	6.0	4.2	1.4
Prop In Lane	1.00		0.23	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	346	329	333	284	773	345	587	734	622	618	815	690
V/C Ratio(X)	0.26	0.76	0.77	0.78	0.28	0.53	0.04	0.11	0.24	0.38	0.18	0.06
Avail Cap(c_a), veh/h	403	612	619	284	1224	546	664	734	622	618	815	690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.2	34.7	34.8	29.8	29.3	31.1	15.5	17.4	18.3	15.5	15.5	14.7
Incr Delay (d2), s/veh	0.4	3.6	3.7	13.3	0.2	1.3	0.0	0.3	0.9	0.4	0.5	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	5.3	5.4	4.8	1.9	3.5	0.3	1.1	2.1	2.7	1.7	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.6	38.3	38.5	43.1	29.5	32.4	15.6	17.7	19.2	15.9	16.0	14.9
LnGrp LOS	C	D	D	D	C	C	B	B	B	B	B	B
Approach Vol, veh/h		596			619			253			419	
Approach Delay, s/veh		36.8			35.2			18.4			15.8	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	41.3	14.0	22.7	8.1	45.2	11.1	25.6
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	6.0	21.0	8.0	31.0	6.0	21.0	8.0	31.0
Max Q Clear Time (g_c+I1), s	8.0	7.7	10.0	14.1	2.7	6.2	5.7	11.1
Green Ext Time (p_c), s	0.0	0.7	0.0	2.6	0.0	0.6	0.0	1.8

Intersection Summary	
HCM 7th Control Delay, s/veh	29.2
HCM 7th LOS	C

Notes

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



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.976	
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1863	1818	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1863	1818	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	671			479	638	
Travel Time (s)	15.3			10.9	14.5	

Intersection Summary	
Area Type:	Other

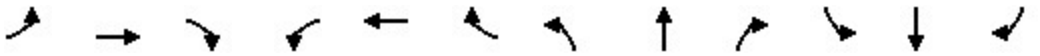
Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	44	0	1	174	307	67
Future Vol, veh/h	44	0	1	174	307	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	0	1	189	334	73

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	561	370	407	0	-	0
Stage 1	370	-	-	-	-	-
Stage 2	191	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	489	676	1152	-	-	-
Stage 1	699	-	-	-	-	-
Stage 2	841	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	488	676	1152	-	-	-
Mov Cap-2 Maneuver	488	-	-	-	-	-
Stage 1	698	-	-	-	-	-
Stage 2	841	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	13.18	0.05	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	10	-	488	-	-
HCM Lane V/C Ratio	0.001	-	0.098	-	-
HCM Control Delay (s/veh)	8.1	0	13.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.959						0.997			0.865	
Flt Protected	0.950			0.950				0.953				
Satd. Flow (prot)	1770	1786	0	1770	1863	0	0	1770	0	0	1611	0
Flt Permitted	0.950			0.950				0.953				
Satd. Flow (perm)	1770	1786	0	1770	1863	0	0	1770	0	0	1611	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		479			801			1975			245	
Travel Time (s)		10.9			20.7			44.9			5.6	

Intersection Summary	
Area Type:	Other

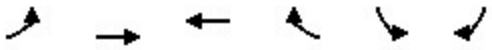
Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	209	78	2	131	0	37	0	1	0	0	8
Future Vol, veh/h	8	209	78	2	131	0	37	0	1	0	0	8
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	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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	227	85	2	142	0	40	0	1	0	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	142	0	0	312	0	0	434	434	270	391	476	142
Stage 1	-	-	-	-	-	-	287	287	-	147	147	-
Stage 2	-	-	-	-	-	-	147	147	-	245	329	-
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	1440	-	-	1248	-	-	532	515	769	568	488	905
Stage 1	-	-	-	-	-	-	720	674	-	856	776	-
Stage 2	-	-	-	-	-	-	856	776	-	759	646	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1440	-	-	1248	-	-	523	511	769	563	484	905
Mov Cap-2 Maneuver	-	-	-	-	-	-	523	511	-	563	484	-
Stage 1	-	-	-	-	-	-	716	670	-	854	774	-
Stage 2	-	-	-	-	-	-	846	774	-	753	642	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.2	0.12	12.4	9.02
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	528	1440	-	-	1248	-	-	905
HCM Lane V/C Ratio	0.078	0.006	-	-	0.002	-	-	0.01
HCM Control Delay (s/veh)	12.4	7.5	-	-	7.9	-	-	9
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	150			0	150	0
Storage Lanes	0			0	0	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.995		0.865	
Flt Protected		0.993				
Satd. Flow (prot)	0	1850	1853	0	1611	0
Flt Permitted		0.993				
Satd. Flow (perm)	0	1850	1853	0	1611	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		340	1975		832	
Travel Time (s)		7.7	44.9		18.9	

Intersection Summary	
Area Type:	Other

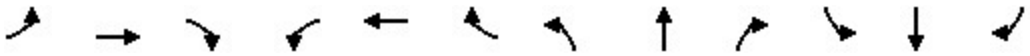
Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	12	25	1	0	5
Future Vol, veh/h	2	12	25	1	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	13	27	1	0	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	28	0	-	0	45	28
Stage 1	-	-	-	-	28	-
Stage 2	-	-	-	-	17	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1585	-	-	-	965	1048
Stage 1	-	-	-	-	995	-
Stage 2	-	-	-	-	1005	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1585	-	-	-	964	1048
Mov Cap-2 Maneuver	-	-	-	-	964	-
Stage 1	-	-	-	-	993	-
Stage 2	-	-	-	-	1005	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.04	0	8.45
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	257	-	-	-	1048
HCM Lane V/C Ratio	0.001	-	-	-	0.005
HCM Control Delay (s/veh)	7.3	0	-	-	8.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0



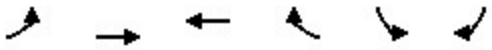
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	250		0	125		0	175		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.977			0.963			0.956			0.993	
Flt Protected		0.997			0.994			0.992			0.982	
Satd. Flow (prot)	0	3447	0	0	3388	0	0	3356	0	0	3451	0
Flt Permitted		0.997			0.994			0.992			0.982	
Satd. Flow (perm)	0	3447	0	0	3388	0	0	3356	0	0	3451	0
Link Speed (mph)		40			35			45			45	
Link Distance (ft)		631			610			567			842	
Travel Time (s)		10.8			11.9			8.6			12.8	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	4.7
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	316	221	187	379
Demand Flow Rate, veh/h	322	226	191	386
Vehicles Circulating, veh/h	398	155	413	202
Vehicles Exiting, veh/h	190	449	307	179
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.3	3.8	4.7	4.6
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.469	0.531	0.469	0.531	0.471	0.529	0.469	0.531
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	151	171	106	120	90	101	181	205
Cap Entry Lane, veh/h	936	1012	1170	1245	923	1000	1121	1196
Entry HV Adj Factor	0.984	0.980	0.981	0.977	0.976	0.981	0.983	0.979
Flow Entry, veh/h	149	168	104	117	88	99	178	201
Cap Entry, veh/h	921	992	1148	1216	901	981	1102	1170
V/C Ratio	0.161	0.169	0.091	0.096	0.097	0.101	0.161	0.171
Control Delay, s/veh	5.5	5.2	3.9	3.8	4.9	4.6	4.7	4.6
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	1	1	0	0	0	0	1	1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.965		0.995	
Flt Protected		0.999			0.954	
Satd. Flow (prot)	0	1861	1798	0	1768	0
Flt Permitted		0.999			0.954	
Satd. Flow (perm)	0	1861	1798	0	1768	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		350	935		1177	
Travel Time (s)		8.0	21.3		26.8	

Intersection Summary	
Area Type:	Other

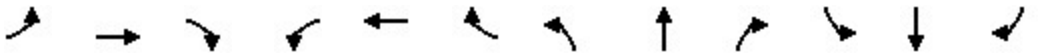
Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	372	172	61	100	4
Future Vol, veh/h	6	372	172	61	100	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	404	187	66	109	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	253	0	-	0	638	220
Stage 1	-	-	-	-	220	-
Stage 2	-	-	-	-	417	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1312	-	-	-	441	820
Stage 1	-	-	-	-	817	-
Stage 2	-	-	-	-	665	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1312	-	-	-	438	820
Mov Cap-2 Maneuver	-	-	-	-	438	-
Stage 1	-	-	-	-	811	-
Stage 2	-	-	-	-	665	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.12	0	15.78
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	29	-	-	-	446
HCM Lane V/C Ratio	0.005	-	-	-	0.253
HCM Control Delay (s/veh)	7.8	0	-	-	15.8
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1



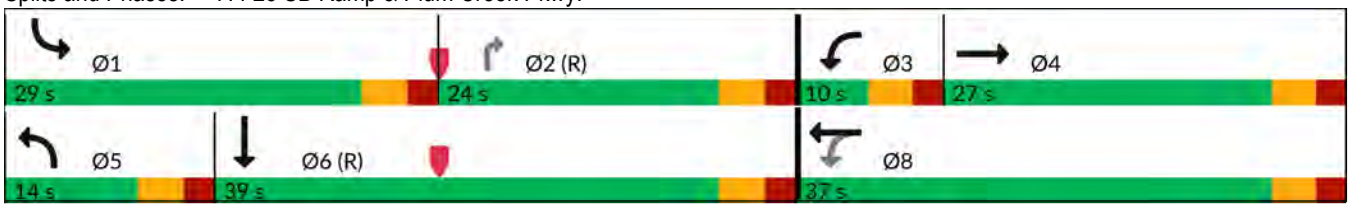
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		0	0		0	375		175	0		175
Storage Lanes	1		0	1		0	1		0	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt		0.973							0.850		0.906	
Flt Protected				0.950			0.950			0.950	0.990	
Satd. Flow (prot)	0	4948	0	1770	3539	0	1770	0	1583	3221	1520	0
Flt Permitted				0.225			0.950			0.950	0.990	
Satd. Flow (perm)	0	4948	0	419	3539	0	1770	0	1583	3221	1520	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		50							206		92	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1497			253			493			625	
Travel Time (s)		34.0			5.8			11.2			14.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	436	164	340	17	191	486	39
Future Volume (vph)	436	164	340	17	191	486	39
Turn Type	NA	pm+pt	NA	Prot	Perm	Prot	NA
Protected Phases	4	3	8	5		1	6
Permitted Phases		8			2		
Detector Phase	4	3	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	10.0	22.5	10.0	22.5	10.0	22.5
Total Split (s)	27.0	10.0	37.0	14.0	24.0	29.0	39.0
Total Split (%)	30.0%	11.1%	41.1%	15.6%	26.7%	32.2%	43.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lead		Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	15.9	25.9	25.9	6.5	30.6	18.4	18.4
Actuated g/C Ratio	0.18	0.29	0.29	0.07	0.34	0.20	0.20
v/c Ratio	0.63	0.91	0.36	0.14	0.31	0.72	0.67
Control Delay (s/veh)	40.7	70.6	35.6	41.1	5.6	39.7	29.3
Queue Delay	0.0	53.6	0.8	0.0	0.1	0.1	0.6
Total Delay (s/veh)	40.7	124.1	36.3	41.1	5.6	39.8	29.8
LOS	D	F	D	D	A	D	C
Approach Delay (s/veh)	40.7		64.8				36.3
Approach LOS	D		E				D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBR and 6:SBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay (s/veh): 42.0	Intersection LOS: D
Intersection Capacity Utilization 51.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 7: I-25 SB Ramp & Plum Creek Pkwy.

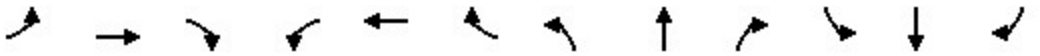




Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Group Flow (vph)	576	178	370	18	208	475	256
v/c Ratio	0.63	0.91	0.36	0.14	0.31	0.72	0.67
Control Delay (s/veh)	40.7	70.6	35.6	41.1	5.6	39.7	29.3
Queue Delay	0.0	53.6	0.8	0.0	0.1	0.1	0.6
Total Delay (s/veh)	40.7	124.1	36.3	41.1	5.6	39.8	29.8
Queue Length 50th (ft)	117	107	117	10	1	139	93
Queue Length 95th (ft)	154	m#135	m136	31	54	182	172
Internal Link Dist (ft)	1417		173				545
Turn Bay Length (ft)				375	175		
Base Capacity (vph)	1247	195	1258	177	674	858	384
Starvation Cap Reductn	0	64	579	0	0	0	0
Spillback Cap Reductn	2	0	0	0	48	27	17
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	1.36	0.54	0.10	0.33	0.57	0.70

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.



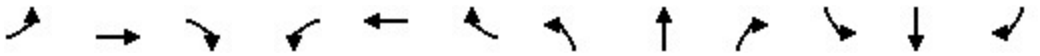
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	436	94	164	340	0	17	0	191	486	39	148
Future Volume (veh/h)	0	436	94	164	340	0	17	0	191	486	39	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	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	0	1870	1870	1870	1870	0	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	474	102	178	370	0	18	0	208	508	70	161
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, %	0	2	2	2	2	0	2	0	2	2	2	2
Cap, veh/h	0	695	146	222	979	0	36	0	0	2185	271	623
Arrive On Green	0.00	0.05	0.05	0.11	0.55	0.00	0.02	0.00	0.00	0.61	0.54	0.54
Sat Flow, veh/h	0	4396	887	1781	3647	0	1781	18		3563	504	1158
Grp Volume(v), veh/h	0	379	197	178	370	0	18	54.1		508	0	231
Grp Sat Flow(s),veh/h/ln	0	1702	1711	1781	1777	0	1781	D		1781	0	1662
Q Serve(g_s), s	0.0	9.8	10.2	5.0	5.3	0.0	0.9			5.8	0.0	6.7
Cycle Q Clear(g_c), s	0.0	9.8	10.2	5.0	5.3	0.0	0.9			5.8	0.0	6.7
Prop In Lane	0.00		0.52	1.00		0.00	1.00			1.00		0.70
Lane Grp Cap(c), veh/h	0	560	281	222	979	0	36			2185	0	894
V/C Ratio(X)	0.00	0.68	0.70	0.80	0.38	0.00	0.50			0.23	0.00	0.26
Avail Cap(c_a), veh/h	0	832	418	222	1264	0	178			2185	0	894
HCM Platoon Ratio	1.00	0.33	0.33	2.00	2.00	1.00	1.00			1.00	1.00	1.00
Upstream Filter(I)	0.00	0.86	0.86	0.34	0.34	0.00	1.00			1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	40.2	40.4	32.2	15.8	0.0	43.6			7.8	0.0	11.2
Incr Delay (d2), s/veh	0.0	1.2	2.7	7.1	0.1	0.0	10.4			0.1	0.0	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.5	4.8	1.9	1.9	0.0	0.5			2.0	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	41.5	43.1	39.3	15.9	0.0	54.1			7.9	0.0	11.9
LnGrp LOS		D	D	D	B		D			A		B
Approach Vol, veh/h		576			548						739	
Approach Delay, s/veh		42.0			23.5						9.1	
Approach LOS		D			C						A	

Timer - Assigned Phs	1		3	4	5	6		8				
Phs Duration (G+Y+Rc), s	60.2		10.0	19.8	6.8	53.4		29.8				
Change Period (Y+Rc), s	5.0		5.0	5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	24.0		5.0	22.0	9.0	34.0		32.0				
Max Q Clear Time (g_c+I1), s	7.8		7.0	12.2	2.9	8.7		7.3				
Green Ext Time (p_c), s	1.7		0.0	2.6	0.0	1.4		2.5				

Intersection Summary	
HCM 7th Control Delay, s/veh	23.8
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



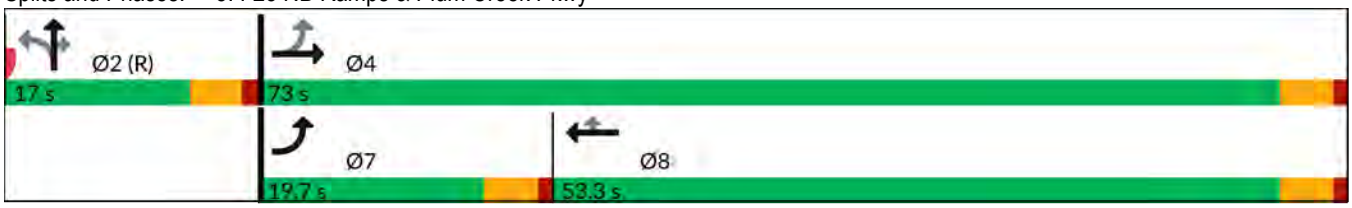
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	0.95	0.95	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.929	0.850		0.895	0.850			
Flt Protected	0.950						0.950	0.987				
Satd. Flow (prot)	1770	5085	0	0	1644	1504	1681	1497	1504	0	0	0
Flt Permitted	0.076						0.950	0.987				
Satd. Flow (perm)	142	5085	0	0	1644	1504	1681	1497	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					79	588		52	73			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		451			733			505			498	
Travel Time (s)		10.3			16.7			11.5			11.3	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	266	884	415	1104	89	2	113
Future Volume (vph)	266	884	415	1104	89	2	113
Turn Type	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	8			2	
Permitted Phases	4			8	2		2
Detector Phase	7	4	8	8	2	2	2
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	19.7	73.0	53.3	53.3	17.0	17.0	17.0
Total Split (%)	21.9%	81.1%	59.2%	59.2%	18.9%	18.9%	18.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	67.4	67.4	48.1	48.1	13.6	13.6	13.6
Actuated g/C Ratio	0.75	0.75	0.53	0.53	0.15	0.15	0.15
v/c Ratio	0.77	0.25	0.94	0.74	0.30	0.28	0.25
Control Delay (s/veh)	35.3	3.6	37.3	8.4	38.7	18.1	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	35.3	3.6	37.3	8.4	38.7	18.1	11.0
LOS	D	A	D	A	D	B	B
Approach Delay (s/veh)		10.9	23.4			23.0	
Approach LOS		B	C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay (s/veh): 18.4	Intersection LOS: B
Intersection Capacity Utilization 75.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 8: I-25 NB Ramps & Plum Creek Pkwy

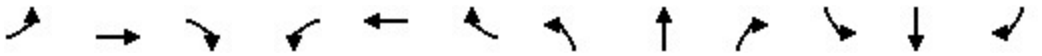




Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	289	961	859	792	77	74	71
v/c Ratio	0.77	0.25	0.94	0.74	0.30	0.28	0.25
Control Delay (s/veh)	35.3	3.6	37.3	8.4	38.7	18.1	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	35.3	3.6	37.3	8.4	38.7	18.1	11.0
Queue Length 50th (ft)	102	46	413	61	42	12	0
Queue Length 95th (ft)	#220	59	#714	213	86	54	37
Internal Link Dist (ft)		371	653			425	
Turn Bay Length (ft)							
Base Capacity (vph)	381	3870	927	1084	253	269	288
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.25	0.93	0.73	0.30	0.28	0.25

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)	266	884	0	0	415	1104	89	2	113	0	0	0
Future Volume (veh/h)	266	884	0	0	415	1104	89	2	113	0	0	0
Initial Q (Qb), veh	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			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	289	961	0	0	1013	826	140	0	78			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	326	3729	0	0	1014	859	604	0	269			
Arrive On Green	0.14	0.73	0.00	0.00	0.54	0.54	0.17	0.00	0.17			
Sat Flow, veh/h	1781	5274	0	0	1870	1585	3563	0	1585			
Grp Volume(v), veh/h	289	961	0	0	1013	826	140	0	78			
Grp Sat Flow(s),veh/h/ln	1781	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	10.2	5.6	0.0	0.0	48.7	44.8	3.1	0.0	3.9			
Cycle Q Clear(g_c), s	10.2	5.6	0.0	0.0	48.7	44.8	3.1	0.0	3.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	326	3729	0	0	1014	859	604	0	269			
V/C Ratio(X)	0.89	0.26	0.00	0.00	1.00	0.96	0.23	0.00	0.29			
Avail Cap(c_a), veh/h	381	3886	0	0	1014	859	604	0	269			
HCM Platoon Ratio	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	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	29.0	4.0	0.0	0.0	20.6	19.7	32.3	0.0	32.6			
Incr Delay (d2), s/veh	19.2	0.0	0.0	0.0	28.0	21.7	0.9	0.0	2.7			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.8	1.5	0.0	0.0	26.8	20.0	1.4	0.0	1.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	48.2	4.1	0.0	0.0	48.5	41.4	33.2	0.0	35.3			
LnGrp LOS	D	A			D	D	C		D			
Approach Vol, veh/h		1250			1839			218				
Approach Delay, s/veh		14.3			45.3			34.0				
Approach LOS		B			D			C				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		19.8		70.2			16.9	53.3				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		12.5		68.5			15.2	48.8				
Max Q Clear Time (g_c+I1), s		5.9		7.6			12.2	50.7				
Green Ext Time (p_c), s		0.4		8.8			0.3	0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	32.8
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



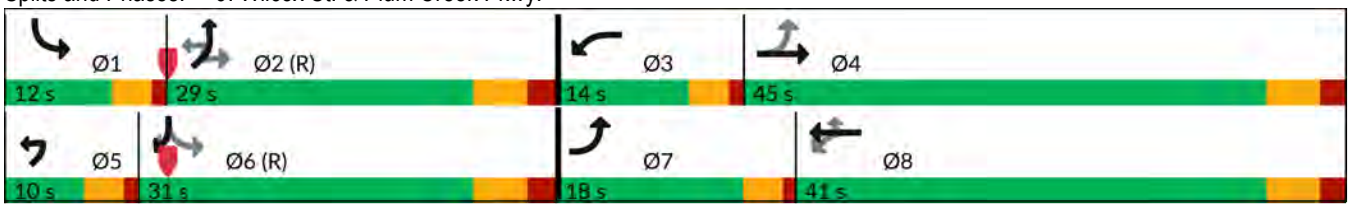
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	SBR2	NEL2	NEL	NER
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%		0%				0%	
Storage Length (ft)	325		0	225		0	175	200			225	250
Storage Lanes	1		1	1		1	1	1			3	0
Taper Length (ft)	25			25			25				25	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.850	0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950	0.950	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1583	1583	3433	1770	1583
Flt Permitted	0.103			0.353			0.683			0.684	0.950	
Satd. Flow (perm)	192	3539	1583	658	3539	1583	1272	1583	1583	2472	1770	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			185			130			157			120
Link Speed (mph)		30			30		30				30	
Link Distance (ft)		709			907		491				739	
Travel Time (s)		16.1			20.6		11.2				16.8	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	SBR2	NEL2	NEL	NER
Lane Configurations												
Traffic Volume (vph)	210	669	109	48	940	120	62	73	144	401	106	34
Future Volume (vph)	210	669	109	48	940	120	62	73	144	401	106	34
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	Prot	Perm	pm+pt	Prot	Perm
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4		Free	8		8	6		6	2		2
Detector Phase	7	4		3	8	8	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	31.0		9.5	31.0	31.0	9.5	34.0	34.0	9.5	36.0	36.0
Total Split (s)	18.0	45.0		14.0	41.0	41.0	12.0	31.0	31.0	10.0	29.0	29.0
Total Split (%)	18.0%	45.0%		14.0%	41.0%	41.0%	12.0%	31.0%	31.0%	10.0%	29.0%	29.0%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.0		1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	53.2	42.2	100.0	42.7	33.9	33.9	35.1	25.8	25.8	34.5	27.5	27.5
Actuated g/C Ratio	0.53	0.42	1.00	0.43	0.34	0.34	0.35	0.26	0.26	0.35	0.28	0.28
v/c Ratio	0.73	0.49	0.07	0.15	0.85	0.21	0.14	0.19	0.30	0.47	0.24	0.07
Control Delay (s/veh)	34.1	22.6	0.1	12.1	38.7	5.0	21.5	31.1	6.6	26.0	32.3	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	34.1	22.6	0.1	12.1	38.7	5.0	21.5	31.1	6.6	26.0	32.3	0.3
LOS	C	C	A	B	D	A	C	C	A	C	C	A
Approach Delay (s/veh)		22.6			33.9		16.3				25.6	
Approach LOS		C			C		B				C	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NEL and 6:SBL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay (s/veh): 26.9	Intersection LOS: C
Intersection Capacity Utilization 69.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Wilcox St. & Plum Creek Pkwy.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	SBR2	NEL2	NEL	NER
Lane Group Flow (vph)	228	727	118	52	1022	130	67	79	157	436	115	37
v/c Ratio	0.73	0.49	0.07	0.15	0.85	0.21	0.14	0.19	0.30	0.47	0.24	0.07
Control Delay (s/veh)	34.1	22.6	0.1	12.1	38.7	5.0	21.5	31.1	6.6	26.0	32.3	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	34.1	22.6	0.1	12.1	38.7	5.0	21.5	31.1	6.6	26.0	32.3	0.3
Queue Length 50th (ft)	83	173	0	15	310	0	28	40	0	102	61	0
Queue Length 95th (ft)	#180	233	0	32	393	39	57	79	49	142	111	0
Internal Link Dist (ft)		629			827		411				659	
Turn Bay Length (ft)	325			225			175	200	200	225	225	250
Base Capacity (vph)	322	1494	1583	413	1238	638	495	407	524	919	486	521
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	0.71	0.49	0.07	0.13	0.83	0.20	0.14	0.19	0.30	0.47	0.24	0.07

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	SBL	SBR	SBR2	NEL2	NEL	NER
Lane Configurations												
Traffic Volume (veh/h)	210	669	109	48	940	120	62	73	144	401	106	34
Future Volume (veh/h)	210	669	109	48	940	120	62	73	144	401	106	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	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	228	727	0	52	1022	130	67	157	157	436	436	37
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	282	1391		311	1161	518	498	492	492	973	973	520
Arrive On Green	0.10	0.39	0.00	0.04	0.33	0.33	0.04	0.31	0.31	0.06	0.06	0.33
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1585	1585	3456	3456	1585
Grp Volume(v), veh/h	228	727	0	52	1022	130	67	157	157	436	436	37
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1585	1585	1728	1728	1585
Q Serve(g_s), s	8.1	15.6	0.0	1.9	27.2	6.0	2.5	7.6	7.6	6.0	6.0	1.6
Cycle Q Clear(g_c), s	8.1	15.6	0.0	1.9	27.2	6.0	2.5	7.6	7.6	6.0	6.0	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	282	1391		311	1161	518	498	492	492	973	973	520
V/C Ratio(X)	0.81	0.52		0.17	0.88	0.25	0.13	0.32	0.32	0.45	0.45	0.07
Avail Cap(c_a), veh/h	348	1391		421	1244	555	565	492	492	973	973	520
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)	0.93	0.93	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	23.3	0.0	21.2	31.8	24.7	21.8	26.4	26.4	23.8	23.8	23.1
Incr Delay (d2), s/veh	10.2	0.3	0.0	0.3	7.2	0.3	0.1	1.7	1.7	0.3	0.3	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	6.5	0.0	0.8	12.5	2.3	1.1	3.1	3.1	1.1	1.1	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.3	23.6	0.0	21.5	39.0	24.9	21.9	28.1	28.1	24.1	24.1	23.4
LnGrp LOS	C	C		C	D	C	C	C	C	C	C	C
Approach Vol, veh/h		955			1204		303			588	588	
Approach Delay, s/veh		25.9			36.8		26.0			24.2	24.2	
Approach LOS		C			D		C			C	C	

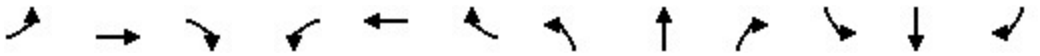
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	38.8	7.8	45.2	10.0	37.0	14.3	38.7
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	8.0	23.0	10.0	39.0	6.0	25.0	14.0	35.0
Max Q Clear Time (g_c+I1), s	4.5	6.4	3.9	17.6	8.0	9.6	10.1	29.2
Green Ext Time (p_c), s	0.0	0.3	0.0	5.2	0.0	0.6	0.2	3.5

Intersection Summary	
HCM 7th Control Delay, s/veh	29.9
HCM 7th LOS	C

Notes

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

Unsignalized Delay for [EBR] 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 Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	100		150	100		0	100		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850					0.862	
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	1863	0	1863	1863	1583	1863	1863	0	1770	1606	0
Flt Permitted	0.271									0.743		
Satd. Flow (perm)	505	1863	0	1863	1863	1583	1863	1863	0	1384	1606	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						238					59	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		862			1497			360			1340	
Travel Time (s)		19.6			34.0			8.2			30.5	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBT	SBL	SBT	Ø3
Lane Configurations								
Traffic Volume (vph)	108	382	286	219	20	148	5	
Future Volume (vph)	108	382	286	219	20	148	5	
Turn Type	pm+pt	NA	NA	Perm	NA	Perm	NA	
Protected Phases	7	4	8		2		6	3
Permitted Phases	4			8		6		
Detector Phase	7	4	8	8	2	6	6	
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5	9.5
Total Split (s)	14.0	46.0	41.5	41.5	34.5	34.5	34.5	9.5
Total Split (%)	15.6%	51.1%	46.1%	46.1%	38.3%	38.3%	38.3%	11%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lag				Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	33.4	33.4	22.4	22.4	47.6	47.6	47.6	
Actuated g/C Ratio	0.37	0.37	0.25	0.25	0.53	0.53	0.53	
v/c Ratio	0.38	0.60	0.67	0.42	0.02	0.22	0.07	
Control Delay (s/veh)	20.1	25.4	26.5	4.9	14.0	15.0	5.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	20.1	25.4	26.5	4.9	14.0	15.0	5.2	
LOS	C	C	C	A	B	B	A	
Approach Delay (s/veh)		24.2	17.1		14.0		12.2	
Approach LOS		C	B		B		B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 6:SBTL, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay (s/veh): 19.1	Intersection LOS: B
Intersection Capacity Utilization 50.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 11: Plum Creek Pkwy. & Prairie Hawk Dr.

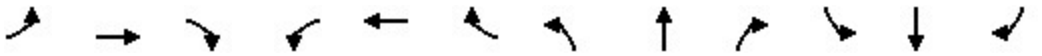




Lane Group	EBL	EBT	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	117	415	311	238	22	161	64
v/c Ratio	0.38	0.60	0.67	0.42	0.02	0.22	0.07
Control Delay (s/veh)	20.1	25.4	26.5	4.9	14.0	15.0	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.1	25.4	26.5	4.9	14.0	15.0	5.2
Queue Length 50th (ft)	42	180	62	10	6	49	1
Queue Length 95th (ft)	66	226	87	m24	22	106	25
Internal Link Dist (ft)		782	1417		280		1260
Turn Bay Length (ft)	150			150		100	
Base Capacity (vph)	320	868	765	790	985	731	877
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.48	0.41	0.30	0.02	0.22	0.07

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)	108	382	0	0	286	219	0	20	0	148	5	54
Future Volume (veh/h)	108	382	0	0	286	219	0	20	0	148	5	54
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	117	415	0	0	311	238	0	22	0	161	5	59
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	246	613	0	214	392	332	80	623	0	532	42	493
Arrive On Green	0.07	0.33	0.00	0.00	0.21	0.21	0.00	0.33	0.00	0.33	0.33	0.33
Sat Flow, veh/h	1781	1870	0	1781	1870	1585	1338	1870	0	1390	125	1479
Grp Volume(v), veh/h	117	415	0	0	311	238	0	22	0	161	0	64
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1781	1870	1585	1338	1870	0	1390	0	1604
Q Serve(g_s), s	4.4	17.3	0.0	0.0	14.2	12.6	0.0	0.7	0.0	8.0	0.0	2.5
Cycle Q Clear(g_c), s	4.4	17.3	0.0	0.0	14.2	12.6	0.0	0.7	0.0	8.7	0.0	2.5
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		0.92
Lane Grp Cap(c), veh/h	246	613	0	214	392	332	80	623	0	532	0	535
V/C Ratio(X)	0.48	0.68	0.00	0.00	0.79	0.72	0.00	0.04	0.00	0.30	0.00	0.12
Avail Cap(c_a), veh/h	312	862	0	311	769	652	80	623	0	532	0	535
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	0.00	0.94	0.94	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.3	26.1	0.0	0.0	33.7	33.1	0.0	20.2	0.0	23.2	0.0	20.8
Incr Delay (d2), s/veh	1.4	1.3	0.0	0.0	3.5	2.7	0.0	0.0	0.0	1.5	0.0	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	7.7	0.0	0.0	6.7	5.0	0.0	0.3	0.0	2.8	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	26.7	27.5	0.0	0.0	37.2	35.8	0.0	20.3	0.0	24.6	0.0	21.3
LnGrp LOS	C	C			D	D		C		C		C
Approach Vol, veh/h		532			549			22			225	
Approach Delay, s/veh		27.3			36.6			20.3			23.7	
Approach LOS		C			D			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		34.5	0.0	34.0		34.5	10.7	23.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		30.0	5.0	41.5		30.0	9.5	37.0				
Max Q Clear Time (g_c+I1), s		2.7	0.0	19.3		10.7	6.4	16.2				
Green Ext Time (p_c), s		0.1	0.0	2.6		0.8	0.1	2.6				

Intersection Summary	
HCM 7th Control Delay, s/veh	30.4
HCM 7th LOS	C



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	100	100			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.947	
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	1863	1863	1764	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1863	1764	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	473			1039	403	
Travel Time (s)	10.8			23.6	14.5	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	59	0	0	73	109	70
Future Vol, veh/h	59	0	0	73	109	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	64	0	0	79	118	76

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	236	157	195	0	-	0
Stage 1	157	-	-	-	-	-
Stage 2	79	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	752	889	1379	-	-	-
Stage 1	872	-	-	-	-	-
Stage 2	944	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	752	889	1379	-	-	-
Mov Cap-2 Maneuver	752	-	-	-	-	-
Stage 1	872	-	-	-	-	-
Stage 2	944	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.23	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1379	-	752	-	-	-
HCM Lane V/C Ratio	-	-	0.085	-	-	-
HCM Control Delay (s/veh)	0	-	10.2	0	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	100	0	100			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.870	
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	1863	1863	1621	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1863	1621	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	482			849	1039	
Travel Time (s)	11.0			19.3	23.6	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	68	0	0	5	4	105
Future Vol, veh/h	68	0	0	5	4	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	74	0	0	5	4	114

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	67	61	118	0	-	0
Stage 1	61	-	-	-	-	-
Stage 2	5	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	938	1004	1470	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	938	1004	1470	-	-	-
Mov Cap-2 Maneuver	938	-	-	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	1018	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.16	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1470	-	938	-	-	-
HCM Lane V/C Ratio	-	-	0.079	-	-	-
HCM Control Delay (s/veh)	0	-	9.2	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	100	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.875	
Flt Protected	0.950			0.950		
Satd. Flow (prot)	1770	1583	0	1770	1630	0
Flt Permitted	0.950			0.950		
Satd. Flow (perm)	1770	1583	0	1770	1630	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	428			524	537	
Travel Time (s)	9.7			11.9	12.2	

Intersection Summary	
Area Type:	Other

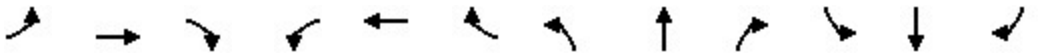
Intersection	
Int Delay, s/veh	8.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	85	262	160	0	4	47
Future Vol, veh/h	85	262	160	0	4	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	92	285	174	0	4	51

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	378	30	55	0	-	0
Stage 1	30	-	-	-	-	-
Stage 2	348	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	624	1045	1549	-	-	-
Stage 1	993	-	-	-	-	-
Stage 2	715	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	554	1045	1549	-	-	-
Mov Cap-2 Maneuver	554	-	-	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	715	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.48	7.62	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1549	-	554	1045	-	-
HCM Lane V/C Ratio	0.112	-	0.167	0.273	-	-
HCM Control Delay (s/veh)	7.6	0	12.8	9.7	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.4	-	0.6	1.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.993			0.865			0.959	
Flt Protected		0.964			0.965						0.966	
Satd. Flow (prot)	0	1796	0	0	1785	0	0	1611	0	0	1726	0
Flt Permitted		0.964			0.965						0.966	
Satd. Flow (perm)	0	1796	0	0	1785	0	0	1611	0	0	1726	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		610			473			1035			186	
Travel Time (s)		13.9			10.8			23.5			4.2	

Intersection Summary	
Area Type:	Other

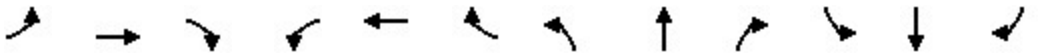
Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	59	19	0	50	16	4	0	0	34	6	0	3
Future Vol, veh/h	59	19	0	50	16	4	0	0	34	6	0	3
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	64	21	0	54	17	4	0	0	37	7	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	22	0	0	21	0	0	275	279	21	277	277	20
Stage 1	-	-	-	-	-	-	149	149	-	128	128	-
Stage 2	-	-	-	-	-	-	126	130	-	149	149	-
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	1594	-	-	1595	-	-	677	629	1057	675	631	1058
Stage 1	-	-	-	-	-	-	854	774	-	875	790	-
Stage 2	-	-	-	-	-	-	878	788	-	854	774	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1594	-	-	1595	-	-	625	582	1057	603	584	1058
Mov Cap-2 Maneuver	-	-	-	-	-	-	625	582	-	603	584	-
Stage 1	-	-	-	-	-	-	819	742	-	845	763	-
Stage 2	-	-	-	-	-	-	845	761	-	790	742	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	5.56	5.24	8.53	10.18
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1057	1362	-	-	1236	-	-	704
HCM Lane V/C Ratio	0.035	0.04	-	-	0.034	-	-	0.014
HCM Control Delay (s/veh)	8.5	7.4	0	-	7.3	0	-	10.2
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0.1	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.862			0.892			0.966			0.915	
Flt Protected	0.950			0.950				0.969			0.989	
Satd. Flow (prot)	1770	1606	0	1770	1662	0	0	1744	0	0	1686	0
Flt Permitted	0.950			0.950				0.969			0.989	
Satd. Flow (perm)	1770	1606	0	1770	1662	0	0	1744	0	0	1686	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		396			482			434			1035	
Travel Time (s)		9.0			11.0			9.9			23.5	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	7.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	123	10	119	46	18	48	61	9	24	28	18	79
Future Vol, veh/h	123	10	119	46	18	48	61	9	24	28	18	79
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	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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	134	11	129	50	20	52	66	10	26	30	20	86

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	72	0	0	140	0	0	472	515	76	429	553	46
Stage 1	-	-	-	-	-	-	343	343	-	146	146	-
Stage 2	-	-	-	-	-	-	129	172	-	283	408	-
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	1528	-	-	1443	-	-	502	464	986	536	441	1024
Stage 1	-	-	-	-	-	-	672	637	-	857	776	-
Stage 2	-	-	-	-	-	-	874	757	-	724	597	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1528	-	-	1443	-	-	387	408	986	450	388	1024
Mov Cap-2 Maneuver	-	-	-	-	-	-	387	408	-	450	388	-
Stage 1	-	-	-	-	-	-	613	582	-	827	750	-
Stage 2	-	-	-	-	-	-	753	730	-	632	545	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	3.7	3.11	15.02	11.69
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	461	1528	-	-	1443	-	-	673
HCM Lane V/C Ratio	0.222	0.087	-	-	0.035	-	-	0.202
HCM Control Delay (s/veh)	15	7.6	-	-	7.6	-	-	11.7
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.8	0.3	-	-	0.1	-	-	0.8



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.979	
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1863	1824	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1863	1824	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	337			403	362	
Travel Time (s)	7.7			9.0	5.3	

Intersection Summary	
Area Type:	Other

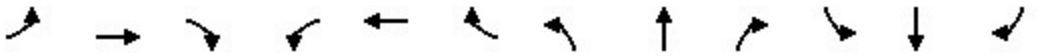
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	0	0	131	178	32
Future Vol, veh/h	2	0	0	131	178	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	0	0	142	193	35

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	353	211	228	0	-	0
Stage 1	211	-	-	-	-	-
Stage 2	142	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	644	829	1340	-	-	-
Stage 1	824	-	-	-	-	-
Stage 2	885	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	644	829	1340	-	-	-
Mov Cap-2 Maneuver	644	-	-	-	-	-
Stage 1	824	-	-	-	-	-
Stage 2	885	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1340	-	644	-	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Control Delay (s/veh)	0	-	10.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		325	125		100	225		150	350		350
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.981				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3472	0	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.480			0.313			0.672			0.582		
Satd. Flow (perm)	894	3472	0	583	3539	1583	1252	1863	1583	1084	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17				210			302			142
Link Speed (mph)		40			40			30			45	
Link Distance (ft)		922			1021			522			586	
Travel Time (s)		15.7			17.4			11.9			8.9	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	50	337	181	356	193	61	144	278	221	122	102
Future Volume (vph)	50	337	181	356	193	61	144	278	221	122	102
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	38.0	10.0	40.0	40.0	10.0	33.0	33.0	10.0	32.0	32.0
Total Split (s)	14.0	40.0	14.0	40.0	40.0	11.0	35.0	35.0	11.0	35.0	35.0
Total Split (%)	14.0%	40.0%	14.0%	40.0%	40.0%	11.0%	35.0%	35.0%	11.0%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	25.6	17.2	29.0	20.8	20.8	47.6	39.4	39.4	57.6	46.7	46.7
Actuated g/C Ratio	0.26	0.17	0.29	0.21	0.21	0.48	0.39	0.39	0.58	0.47	0.47
v/c Ratio	0.18	0.69	0.72	0.53	0.42	0.10	0.21	0.37	0.34	0.15	0.14
Control Delay (s/veh)	24.0	42.9	41.7	38.5	7.6	11.5	23.3	4.6	12.5	18.3	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.0	42.9	41.7	38.5	7.6	11.5	23.3	4.6	12.5	18.3	2.2
LOS	C	D	D	D	A	B	C	A	B	B	A
Approach Delay (s/veh)		40.8		31.1			11.0			11.7	
Approach LOS		D		C			B			B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay (s/veh): 24.4	Intersection LOS: C
Intersection Capacity Utilization 59.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Prairie Hawk Dr. & Wolfensberger Rd.

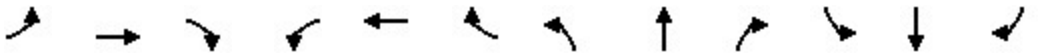




Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	54	418	197	387	210	66	157	302	240	133	111
v/c Ratio	0.18	0.69	0.72	0.53	0.42	0.10	0.21	0.37	0.34	0.15	0.14
Control Delay (s/veh)	24.0	42.9	41.7	38.5	7.6	11.5	23.3	4.6	12.5	18.3	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.0	42.9	41.7	38.5	7.6	11.5	23.3	4.6	12.5	18.3	2.2
Queue Length 50th (ft)	24	127	96	120	0	17	64	0	69	49	0
Queue Length 95th (ft)	48	168	#148	160	58	41	132	61	127	99	21
Internal Link Dist (ft)		842		941			442			506	
Turn Bay Length (ft)	325		125		100	225		150	350		350
Base Capacity (vph)	321	1191	275	1203	676	635	734	807	709	870	815
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.35	0.72	0.32	0.31	0.10	0.21	0.37	0.34	0.15	0.14

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)	50	337	48	181	356	193	61	144	278	221	122	102
Future Volume (veh/h)	50	337	48	181	356	193	61	144	278	221	122	102
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	54	366	52	197	387	210	66	157	302	240	133	111
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	231	485	68	273	733	327	663	888	753	577	922	781
Arrive On Green	0.04	0.16	0.16	0.09	0.21	0.21	0.04	0.47	0.47	0.06	0.49	0.49
Sat Flow, veh/h	1781	3127	441	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	54	207	211	197	387	210	66	157	302	240	133	111
Grp Sat Flow(s),veh/h/ln	1781	1777	1791	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	2.5	11.1	11.3	9.0	9.7	12.1	1.9	4.8	12.4	6.0	3.9	3.8
Cycle Q Clear(g_c), s	2.5	11.1	11.3	9.0	9.7	12.1	1.9	4.8	12.4	6.0	3.9	3.8
Prop In Lane	1.00		0.25	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	231	275	278	273	733	327	663	888	753	577	922	781
V/C Ratio(X)	0.23	0.75	0.76	0.72	0.53	0.64	0.10	0.18	0.40	0.42	0.14	0.14
Avail Cap(c_a), veh/h	322	604	609	273	1208	539	695	888	753	577	922	781
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	40.4	40.5	31.7	35.4	36.3	12.1	15.0	17.0	13.2	13.8	13.8
Incr Delay (d2), s/veh	0.5	4.1	4.3	9.0	0.6	2.1	0.1	0.4	1.6	0.5	0.3	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	5.0	5.1	4.5	4.1	4.7	0.7	2.1	4.5	2.7	1.6	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.1	44.5	44.8	40.6	35.9	38.4	12.2	15.5	18.6	13.7	14.2	14.2
LnGrp LOS	C	D	D	D	D	D	B	B	B	B	B	B
Approach Vol, veh/h		472			794			525			484	
Approach Delay, s/veh		43.4			37.8			16.9			13.9	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	53.5	14.0	21.5	9.2	55.3	8.9	26.6
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	6.0	29.0	9.0	34.0	6.0	29.0	9.0	34.0
Max Q Clear Time (g_c+I1), s	8.0	14.4	11.0	13.3	3.9	5.9	4.5	14.1
Green Ext Time (p_c), s	0.0	1.7	0.0	2.2	0.0	0.9	0.0	3.0

Intersection Summary	
HCM 7th Control Delay, s/veh	29.1
HCM 7th LOS	C

Notes

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



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.999				0.960	
Flt Protected	0.953					
Satd. Flow (prot)	1773	0	0	1863	1788	0
Flt Permitted	0.953					
Satd. Flow (perm)	1773	0	0	1863	1788	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	611			661	522	
Travel Time (s)	15.5			15.2	12.2	

Intersection Summary	
Area Type:	Other

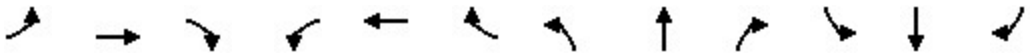
Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	142	1	3	310	256	109
Future Vol, veh/h	142	1	3	310	256	109
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	154	1	3	337	278	118

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	681	338	397	0	-	0
Stage 1	338	-	-	-	-	-
Stage 2	343	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	416	705	1162	-	-	-
Stage 1	723	-	-	-	-	-
Stage 2	718	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	415	705	1162	-	-	-
Mov Cap-2 Maneuver	415	-	-	-	-	-
Stage 1	720	-	-	-	-	-
Stage 2	718	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	18.74	0.08	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	17	-	416	-	-
HCM Lane V/C Ratio	0.003	-	0.374	-	-
HCM Control Delay (s/veh)	8.1	0	18.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	1.7	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.850			0.850						0.979	
Flt Protected	0.950										0.999	
Satd. Flow (prot)	1770	1583	0	1863	1583	0	0	1863	0	0	1822	0
Flt Permitted	0.950										0.999	
Satd. Flow (perm)	1770	1583	0	1863	1583	0	0	1863	0	0	1822	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		661			661			1975			245	
Travel Time (s)		15.2			20.7			44.9			5.6	

Intersection Summary	
Area Type:	Other

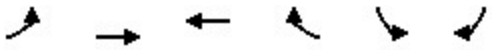
Intersection	
Int Delay, s/veh	12.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	77	0	1	0	0	15	1	215	0	5	219	42
Future Vol, veh/h	77	0	1	0	0	15	1	215	0	5	219	42
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	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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	84	0	1	0	0	16	1	234	0	5	238	46

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	16	0	0	1	0	0	287	184	1	292	177	8
Stage 1	-	-	-	-	-	-	168	168	-	8	8	-
Stage 2	-	-	-	-	-	-	119	16	-	284	168	-
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	1601	-	-	1622	-	-	665	710	1084	660	717	1074
Stage 1	-	-	-	-	-	-	834	759	-	1013	889	-
Stage 2	-	-	-	-	-	-	885	882	-	723	759	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1601	-	-	1622	-	-	400	673	1084	416	679	1074
Mov Cap-2 Maneuver	-	-	-	-	-	-	400	673	-	416	679	-
Stage 1	-	-	-	-	-	-	790	720	-	1013	889	-
Stage 2	-	-	-	-	-	-	621	882	-	463	719	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	7.28	0	13.23	13.46
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	671	1601	-	-	1622	-	-	712
HCM Lane V/C Ratio	0.35	0.052	-	-	-	-	-	0.406
HCM Control Delay (s/veh)	13.2	7.4	-	-	0	-	-	13.5
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	1.6	0.2	-	-	0	-	-	2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	150			0	150	0
Storage Lanes	0			0	0	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.975		0.902	
Flt Protected		0.989			0.987	
Satd. Flow (prot)	0	1842	1816	0	1658	0
Flt Permitted		0.989			0.987	
Satd. Flow (perm)	0	1842	1816	0	1658	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		340	1975		832	
Travel Time (s)		7.7	44.9		18.9	

Intersection Summary	
Area Type:	Other

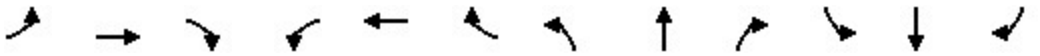
Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	30	17	4	3	7
Future Vol, veh/h	8	30	17	4	3	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	33	18	4	3	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	23	0	-	0	71	21
Stage 1	-	-	-	-	21	-
Stage 2	-	-	-	-	50	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1592	-	-	-	934	1057
Stage 1	-	-	-	-	1002	-
Stage 2	-	-	-	-	972	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1592	-	-	-	928	1057
Mov Cap-2 Maneuver	-	-	-	-	928	-
Stage 1	-	-	-	-	996	-
Stage 2	-	-	-	-	972	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.53	0	8.59
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	379	-	-	-	1015
HCM Lane V/C Ratio	0.005	-	-	-	0.011
HCM Control Delay (s/veh)	7.3	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0



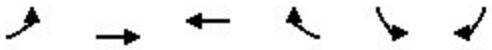
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	250		0	125		0	175		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.970			0.952			0.982			0.982	
Flt Protected		0.997			0.994			0.993			0.987	
Satd. Flow (prot)	0	3423	0	0	3349	0	0	3451	0	0	3430	0
Flt Permitted		0.997			0.994			0.993			0.987	
Satd. Flow (perm)	0	3423	0	0	3349	0	0	3451	0	0	3430	0
Link Speed (mph)		40			35			45			45	
Link Distance (ft)		631			610			567			842	
Travel Time (s)		10.8			11.9			8.6			12.8	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	4.9
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	269	387	313	323
Demand Flow Rate, veh/h	274	395	320	330
Vehicles Circulating, veh/h	336	297	304	314
Vehicles Exiting, veh/h	308	327	306	378
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.8	5.2	4.8	4.9
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.471	0.529	0.471	0.529	0.469	0.531	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	129	145	186	209	150	170	155	175
Cap Entry Lane, veh/h	991	1067	1027	1103	1021	1097	1011	1087
Entry HV Adj Factor	0.980	0.983	0.977	0.981	0.982	0.977	0.979	0.978
Flow Entry, veh/h	126	143	182	205	147	166	152	171
Cap Entry, veh/h	971	1049	1004	1082	1002	1072	990	1064
V/C Ratio	0.130	0.136	0.181	0.189	0.147	0.155	0.153	0.161
Control Delay, s/veh	4.9	4.6	5.3	5.1	4.9	4.8	5.1	4.8
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	0	0	1	1	1	1	1	1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.973		0.994	
Flt Protected		0.999			0.954	
Satd. Flow (prot)	0	1861	1812	0	1766	0
Flt Permitted		0.999			0.954	
Satd. Flow (perm)	0	1861	1812	0	1766	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		350	935		1177	
Travel Time (s)		8.0	21.3		26.8	

Intersection Summary	
Area Type:	Other

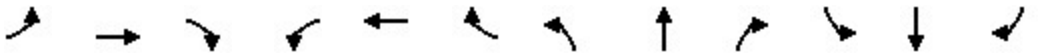
Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	344	380	94	84	4
Future Vol, veh/h	6	344	380	94	84	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	374	413	102	91	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	515	0	-	0	851	464
Stage 1	-	-	-	-	464	-
Stage 2	-	-	-	-	387	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1050	-	-	-	330	598
Stage 1	-	-	-	-	633	-
Stage 2	-	-	-	-	686	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1050	-	-	-	328	598
Mov Cap-2 Maneuver	-	-	-	-	328	-
Stage 1	-	-	-	-	628	-
Stage 2	-	-	-	-	686	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.14	0	20.01
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	31	-	-	-	335
HCM Lane V/C Ratio	0.006	-	-	-	0.286
HCM Control Delay (s/veh)	8.4	0	-	-	20
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1.2



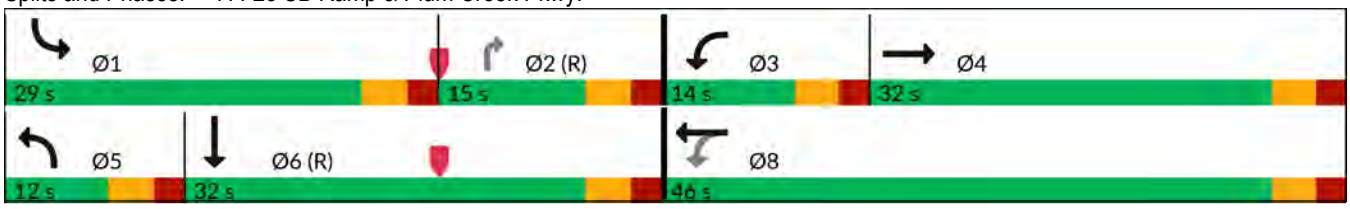
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		0	0		0	375		175	0		175
Storage Lanes	1		0	1		0	1		0	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt		0.977							0.850		0.947	
Flt Protected				0.950			0.950			0.950	0.987	
Satd. Flow (prot)	0	4968	0	1770	3539	0	1770	0	1583	3221	1584	0
Flt Permitted				0.207			0.950			0.950	0.987	
Satd. Flow (perm)	0	4968	0	386	3539	0	1770	0	1583	3221	1584	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40							206		30	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1497			253			493			625	
Travel Time (s)		34.0			5.8			11.2			14.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	499	266	431	17	182	939	157
Future Volume (vph)	499	266	431	17	182	939	157
Turn Type	NA	pm+pt	NA	Prot	Perm	Prot	NA
Protected Phases	4	3	8	5		1	6
Permitted Phases		8			2		
Detector Phase	4	3	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	10.0	22.5	10.0	22.5	10.0	22.5
Total Split (s)	32.0	14.0	46.0	12.0	15.0	29.0	32.0
Total Split (%)	35.6%	15.6%	51.1%	13.3%	16.7%	32.2%	35.6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lead		Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	17.6	31.6	31.6	6.5	10.9	32.5	32.5
Actuated g/C Ratio	0.20	0.35	0.35	0.07	0.12	0.36	0.36
v/c Ratio	0.64	1.06	0.38	0.14	0.53	0.78	0.74
Control Delay (s/veh)	33.2	94.5	33.6	41.1	10.9	32.2	33.3
Queue Delay	0.0	19.4	0.8	0.0	0.4	0.2	0.3
Total Delay (s/veh)	33.2	113.8	34.5	41.1	11.3	32.4	33.6
LOS	C	F	C	D	B	C	C
Approach Delay (s/veh)	33.2		64.8				32.8
Approach LOS	C		E				C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBR and 6:SBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay (s/veh): 39.7	Intersection LOS: D
Intersection Capacity Utilization 68.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: I-25 SB Ramp & Plum Creek Pkwy.





Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT
Lane Group Flow (vph)	639	289	468	18	198	909	437
v/c Ratio	0.64	1.06	0.38	0.14	0.53	0.78	0.74
Control Delay (s/veh)	33.2	94.5	33.6	41.1	10.9	32.2	33.3
Queue Delay	0.0	19.4	0.8	0.0	0.4	0.2	0.3
Total Delay (s/veh)	33.2	113.8	34.5	41.1	11.3	32.4	33.6
Queue Length 50th (ft)	126	~181	145	10	0	246	216
Queue Length 95th (ft)	123	m#235	m169	31	57	#386	#417
Internal Link Dist (ft)	1417		173				545
Turn Bay Length (ft)				375	175		
Base Capacity (vph)	1518	273	1612	141	372	1164	591
Starvation Cap Reductn	0	80	819	0	0	0	0
Spillback Cap Reductn	21	0	0	0	25	24	13
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	1.50	0.59	0.13	0.57	0.80	0.76

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)	0	499	89	266	431	0	17	0	182	939	157	142
Future Volume (veh/h)	0	499	89	266	431	0	17	0	182	939	157	142
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	0	1870	1870	1870	1870	0	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	542	97	289	468	0	18	0	198	959	258	154
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, %	0	2	2	2	2	0	2	0	2	2	2	2
Cap, veh/h	0	789	139	307	1195	0	36	0	0	1969	523	312
Arrive On Green	0.00	0.18	0.18	0.20	0.67	0.00	0.02	0.00	0.00	0.55	0.48	0.48
Sat Flow, veh/h	0	4537	768	1781	3647	0	1781	18		3563	1097	655
Grp Volume(v), veh/h	0	420	219	289	468	0	18	54.1		959	0	412
Grp Sat Flow(s),veh/h/ln	0	1702	1732	1781	1777	0	1781	D		1781	0	1752
Q Serve(g_s), s	0.0	10.4	10.7	9.0	5.3	0.0	0.9			14.8	0.0	14.5
Cycle Q Clear(g_c), s	0.0	10.4	10.7	9.0	5.3	0.0	0.9			14.8	0.0	14.5
Prop In Lane	0.00		0.44	1.00		0.00	1.00			1.00		0.37
Lane Grp Cap(c), veh/h	0	615	313	307	1195	0	36			1969	0	836
V/C Ratio(X)	0.00	0.68	0.70	0.94	0.39	0.00	0.50			0.49	0.00	0.49
Avail Cap(c_a), veh/h	0	1021	520	307	1619	0	139			1969	0	836
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00	1.00			1.00	1.00	1.00
Upstream Filter(I)	0.00	0.88	0.88	0.39	0.39	0.00	1.00			1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	34.5	34.6	28.0	10.6	0.0	43.6			12.3	0.0	16.1
Incr Delay (d2), s/veh	0.0	1.2	2.5	19.2	0.1	0.0	10.4			0.2	0.0	2.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.3	4.6	6.0	1.7	0.0	0.5			5.5	0.0	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	35.7	37.1	47.2	10.7	0.0	54.1			12.5	0.0	18.2
LnGrp LOS		D	D	D	B		D			B		B
Approach Vol, veh/h		639			757						1371	
Approach Delay, s/veh		36.1			24.6						14.2	
Approach LOS		D			C						B	

Timer - Assigned Phs	1		3	4	5	6		8				
Phs Duration (G+Y+Rc), s	54.7		14.0	21.3	6.8	47.9		35.3				
Change Period (Y+Rc), s	5.0		5.0	5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	24.0		9.0	27.0	7.0	27.0		41.0				
Max Q Clear Time (g_c+I1), s	16.8		11.0	12.7	2.9	16.5		7.3				
Green Ext Time (p_c), s	2.4		0.0	3.6	0.0	1.9		3.4				

Intersection Summary	
HCM 7th Control Delay, s/veh	22.3
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

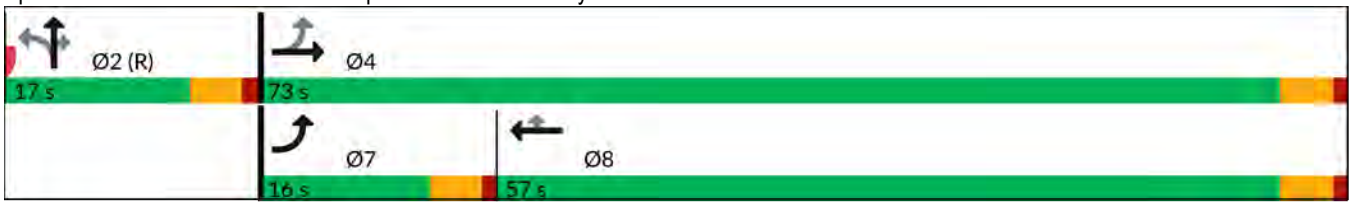
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	0.95	0.95	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.953	0.850		0.903	0.850			
Flt Protected	0.950						0.950	0.983				
Satd. Flow (prot)	1770	5085	0	0	1686	1504	1681	1505	1504	0	0	0
Flt Permitted	0.070						0.950	0.983				
Satd. Flow (perm)	130	5085	0	0	1686	1504	1681	1505	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					44	634		73	77			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		371			518			473			332	
Travel Time (s)		8.4			11.8			10.8			7.5	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	251	1338	612	1074	102	0	118
Future Volume (vph)	251	1338	612	1074	102	0	118
Turn Type	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	8			2	
Permitted Phases	4			8	2		2
Detector Phase	7	4	8	8	2	2	2
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	16.0	73.0	57.0	57.0	17.0	17.0	17.0
Total Split (%)	17.8%	81.1%	63.3%	63.3%	18.9%	18.9%	18.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	68.5	68.5	52.5	52.5	12.5	12.5	12.5
Actuated g/C Ratio	0.76	0.76	0.58	0.58	0.14	0.14	0.14
v/c Ratio	0.89	0.38	0.97	0.76	0.36	0.29	0.28
Control Delay (s/veh)	52.8	3.9	40.4	8.3	40.0	13.3	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	52.8	3.9	40.4	8.3	40.0	13.3	11.6
LOS	D	A	D	A	D	B	B
Approach Delay (s/veh)		11.6	25.3			22.0	
Approach LOS		B	C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay (s/veh): 18.9	Intersection LOS: B
Intersection Capacity Utilization 83.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 8: I-25 NB Ramps & Plum Creek Pkwy

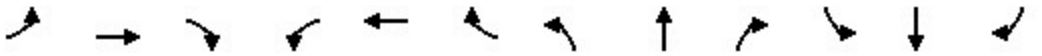




Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	273	1454	968	864	83	79	77
v/c Ratio	0.89	0.38	0.97	0.76	0.36	0.29	0.28
Control Delay (s/veh)	52.8	3.9	40.4	8.3	40.0	13.3	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	52.8	3.9	40.4	8.3	40.0	13.3	11.6
Queue Length 50th (ft)	102	80	494	63	45	3	0
Queue Length 95th (ft)	#246	97	#825	230	92	47	41
Internal Link Dist (ft)		291	438			393	
Turn Bay Length (ft)							
Base Capacity (vph)	308	3870	1001	1141	233	271	275
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.38	0.97	0.76	0.36	0.29	0.28

Intersection Summary

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



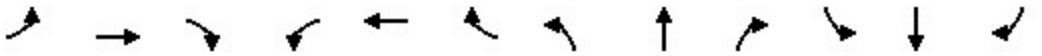
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	1338	0	0	612	1074	102	0	118	0	0	0
Future Volume (veh/h)	251	1338	0	0	612	1074	102	0	118	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	273	1454	0	0	1042	916	153	0	83			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	307	3848	0	0	1091	925	522	0	232			
Arrive On Green	0.12	0.75	0.00	0.00	0.58	0.58	0.15	0.00	0.15			
Sat Flow, veh/h	1781	5274	0	0	1870	1585	3563	0	1585			
Grp Volume(v), veh/h	273	1454	0	0	1042	916	153	0	83			
Grp Sat Flow(s),veh/h/ln	1781	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	8.8	8.8	0.0	0.0	47.2	51.3	3.4	0.0	4.2			
Cycle Q Clear(g_c), s	8.8	8.8	0.0	0.0	47.2	51.3	3.4	0.0	4.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	307	3848	0	0	1091	925	522	0	232			
V/C Ratio(X)	0.89	0.38	0.00	0.00	0.96	0.99	0.29	0.00	0.36			
Avail Cap(c_a), veh/h	321	3886	0	0	1091	925	522	0	232			
HCM Platoon Ratio	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	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	28.6	3.8	0.0	0.0	17.6	18.5	34.3	0.0	34.6			
Incr Delay (d2), s/veh	24.1	0.1	0.0	0.0	17.5	27.2	1.4	0.0	4.3			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.4	2.2	0.0	0.0	23.0	23.3	1.6	0.0	1.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	52.7	3.9	0.0	0.0	35.1	45.7	35.7	0.0	38.9			
LnGrp LOS	D	A			D	D	D		D			
Approach Vol, veh/h		1727			1958			236				
Approach Delay, s/veh		11.6			40.1			36.8				
Approach LOS		B			D			D				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		17.7		72.3			15.3	57.0				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		12.5		68.5			11.5	52.5				
Max Q Clear Time (g_c+I1), s		6.2		10.8			10.8	53.3				
Green Ext Time (p_c), s		0.4		16.6			0.1	0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			27.3									
HCM 7th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



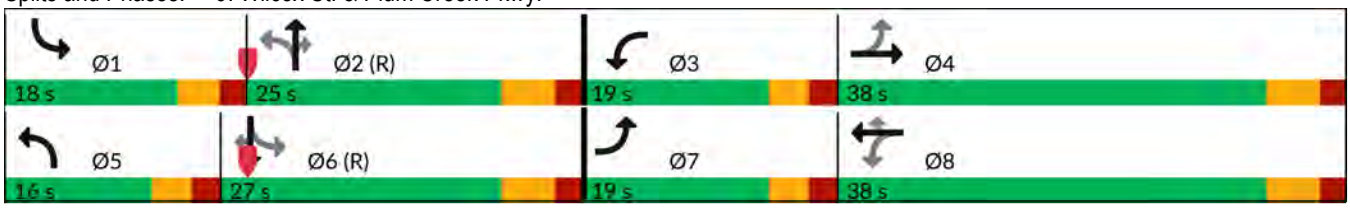
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		0	225		0	225		250	175		200
Storage Lanes	1		1	1		1	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	1863	1583	1770	1863	1583
Flt Permitted	0.104			0.120			0.684			0.592		
Satd. Flow (perm)	194	3539	1583	224	3539	1583	2472	1863	1583	1103	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			207			142			142			266
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		709			907			521			491	
Travel Time (s)		16.1			20.6			11.8			11.2	

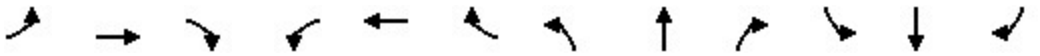
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	257	1138	97	66	897	110	503	139	59	176	105	245
Future Volume (vph)	257	1138	97	66	897	110	503	139	59	176	105	245
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		8	2		2	6		6
Detector Phase	7	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	36.0		10.0	31.0	31.0	10.0	36.0	36.0	10.0	29.0	29.0
Total Split (s)	19.0	38.0		19.0	38.0	38.0	16.0	25.0	25.0	18.0	27.0	27.0
Total Split (%)	19.0%	38.0%		19.0%	38.0%	38.0%	16.0%	25.0%	25.0%	18.0%	27.0%	27.0%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0		5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	51.9	40.6	100.0	41.0	32.4	32.4	32.3	20.3	20.3	33.7	21.0	21.0
Actuated g/C Ratio	0.52	0.41	1.00	0.41	0.32	0.32	0.32	0.20	0.20	0.34	0.21	0.21
v/c Ratio	0.89	0.86	0.07	0.35	0.85	0.20	0.61	0.40	0.15	0.43	0.29	0.49
Control Delay (s/veh)	53.9	35.9	0.1	17.8	40.2	3.7	27.4	38.9	0.7	25.0	35.7	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	53.9	35.9	0.1	17.8	40.2	3.7	27.4	38.9	0.7	25.0	35.7	7.6
LOS	D	D	A	B	D	A	C	D	A	C	D	A
Approach Delay (s/veh)		36.7			35.0			27.4			19.0	
Approach LOS		D			D			C			B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay (s/veh): 32.1	Intersection LOS: C
Intersection Capacity Utilization 77.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 9: Wilcox St. & Plum Creek Pkwy.

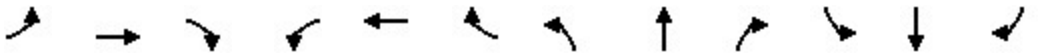




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	279	1237	105	72	975	120	547	151	64	191	114	266
v/c Ratio	0.89	0.86	0.07	0.35	0.85	0.20	0.61	0.40	0.15	0.43	0.29	0.49
Control Delay (s/veh)	53.9	35.9	0.1	17.8	40.2	3.7	27.4	38.9	0.7	25.0	35.7	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	53.9	35.9	0.1	17.8	40.2	3.7	27.4	38.9	0.7	25.0	35.7	7.6
Queue Length 50th (ft)	123	385	0	22	304	0	130	86	0	83	62	0
Queue Length 95th (ft)	#271	#547	0	44	#400	28	176	147	0	137	112	65
Internal Link Dist (ft)		629			827			441			411	
Turn Bay Length (ft)	325			225			225		250	175		200
Base Capacity (vph)	321	1436	1583	322	1148	609	903	377	434	472	391	542
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	0.87	0.86	0.07	0.22	0.85	0.20	0.61	0.40	0.15	0.40	0.29	0.49

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)	257	1138	97	66	897	110	503	139	59	176	105	245
Future Volume (veh/h)	257	1138	97	66	897	110	503	139	59	176	105	245
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	279	1237	0	72	975	120	547	151	64	191	114	266
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	315	1373		175	1086	485	896	468	397	466	450	381
Arrive On Green	0.12	0.39	0.00	0.04	0.31	0.31	0.11	0.25	0.25	0.10	0.24	0.24
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	279	1237	0	72	975	120	547	151	64	191	114	266
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	10.2	32.8	0.0	2.7	26.3	5.7	11.0	6.6	3.2	7.9	4.9	15.3
Cycle Q Clear(g_c), s	10.2	32.8	0.0	2.7	26.3	5.7	11.0	6.6	3.2	7.9	4.9	15.3
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	315	1373		175	1086	485	896	468	397	466	450	381
V/C Ratio(X)	0.89	0.90		0.41	0.90	0.25	0.61	0.32	0.16	0.41	0.25	0.70
Avail Cap(c_a), veh/h	344	1373		348	1137	507	896	468	397	519	450	381
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)	0.77	0.77	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	28.9	0.0	25.7	33.2	26.1	25.7	30.6	29.3	24.5	30.7	34.7
Incr Delay (d2), s/veh	17.9	6.8	0.0	1.5	9.4	0.3	1.2	1.8	0.9	0.6	1.4	10.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	14.7	0.0	1.2	12.4	2.2	5.1	3.2	1.3	3.4	2.4	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.0	35.7	0.0	27.3	42.6	26.3	26.9	32.4	30.2	25.1	32.1	44.8
LnGrp LOS	D	D		C	D	C	C	C	C	C	C	D
Approach Vol, veh/h		1516			1167			762			571	
Approach Delay, s/veh		36.6			40.0			28.3			35.7	
Approach LOS		D			D			C			D	

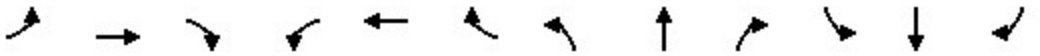
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	31.0	9.3	44.6	16.0	30.1	17.4	36.6
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	13.0	19.0	14.0	32.0	11.0	21.0	14.0	32.0
Max Q Clear Time (g_c+I1), s	9.9	8.6	4.7	34.8	13.0	17.3	12.2	28.3
Green Ext Time (p_c), s	0.1	0.7	0.1	0.0	0.0	0.6	0.2	2.3

Intersection Summary	
HCM 7th Control Delay, s/veh	35.9
HCM 7th LOS	D

Notes

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

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



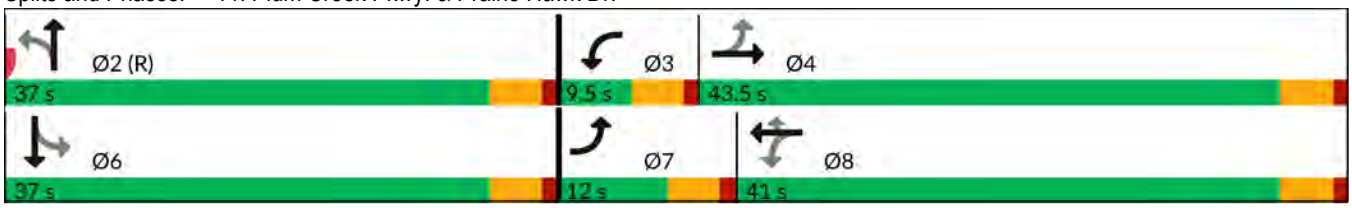
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	200		100	100		0	100		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850					0.874	
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	1863	0	1863	1863	1583	1863	1863	0	1770	1628	0
Flt Permitted	0.211									0.738		
Satd. Flow (perm)	393	1863	0	1863	1863	1583	1863	1863	0	1375	1628	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						208					118	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		881			1497			317			1476	
Travel Time (s)		20.0			34.0			7.2			33.5	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBT	SBL	SBT	Ø3
Lane Configurations								
Traffic Volume (vph)	104	363	370	229	27	225	21	
Future Volume (vph)	104	363	370	229	27	225	21	
Turn Type	pm+pt	NA	NA	Perm	NA	Perm	NA	
Protected Phases	7	4	8		2		6	3
Permitted Phases	4			8		6		
Detector Phase	7	4	8	8	2	6	6	
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5	9.5
Total Split (s)	12.0	43.5	41.0	41.0	37.0	37.0	37.0	9.5
Total Split (%)	13.3%	48.3%	45.6%	45.6%	41.1%	41.1%	41.1%	11%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lag				Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				Yes
Recall Mode	None	None	None	None	C-Max	Max	Max	None
Act Effct Green (s)	35.8	35.8	26.2	26.2	45.2	45.2	45.2	
Actuated g/C Ratio	0.40	0.40	0.29	0.29	0.50	0.50	0.50	
v/c Ratio	0.42	0.53	0.74	0.41	0.03	0.36	0.16	
Control Delay (s/veh)	19.6	22.1	27.3	3.2	15.7	18.5	5.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	19.6	22.1	27.3	3.2	15.7	18.5	5.3	
LOS	B	C	C	A	B	B	A	
Approach Delay (s/veh)		21.5	18.1		15.7		13.7	
Approach LOS		C	B		B		B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay (s/veh): 18.1	Intersection LOS: B
Intersection Capacity Utilization 55.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 11: Plum Creek Pkwy. & Prairie Hawk Dr.





Lane Group	EBL	EBT	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	113	395	402	249	29	245	141
v/c Ratio	0.42	0.53	0.74	0.41	0.03	0.36	0.16
Control Delay (s/veh)	19.6	22.1	27.3	3.2	15.7	18.5	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.6	22.1	27.3	3.2	15.7	18.5	5.3
Queue Length 50th (ft)	38	158	246	6	9	86	7
Queue Length 95th (ft)	59	197	m336	m16	28	174	45
Internal Link Dist (ft)		801	1417		237		1396
Turn Bay Length (ft)	150			100		100	
Base Capacity (vph)	270	851	755	765	935	690	876
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.46	0.53	0.33	0.03	0.36	0.16

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)	104	363	0	0	370	229	0	27	0	225	21	109
Future Volume (veh/h)	104	363	0	0	370	229	0	27	0	225	21	109
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	113	395	0	0	402	249	0	29	0	245	23	118
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	236	697	0	284	485	411	80	987	0	798	140	718
Arrive On Green	0.06	0.37	0.00	0.00	0.26	0.26	0.00	0.53	0.00	0.53	0.53	0.53
Sat Flow, veh/h	1781	1870	0	1781	1870	1585	1248	1870	0	1381	265	1360
Grp Volume(v), veh/h	113	395	0	0	402	249	0	29	0	245	0	141
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1781	1870	1585	1248	1870	0	1381	0	1625
Q Serve(g_s), s	4.0	15.1	0.0	0.0	18.2	12.4	0.0	0.7	0.0	9.3	0.0	4.0
Cycle Q Clear(g_c), s	4.0	15.1	0.0	0.0	18.2	12.4	0.0	0.7	0.0	10.0	0.0	4.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		0.84
Lane Grp Cap(c), veh/h	236	697	0	284	485	411	80	987	0	798	0	858
V/C Ratio(X)	0.48	0.57	0.00	0.00	0.83	0.61	0.00	0.03	0.00	0.31	0.00	0.16
Avail Cap(c_a), veh/h	273	810	0	381	759	643	80	987	0	798	0	858
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	0.00	0.94	0.94	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.3	22.5	0.0	0.0	31.4	29.3	0.0	10.2	0.0	12.6	0.0	11.0
Incr Delay (d2), s/veh	1.5	0.7	0.0	0.0	4.2	1.4	0.0	0.1	0.0	1.0	0.0	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	6.5	0.0	0.0	8.6	4.8	0.0	0.3	0.0	2.9	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.8	23.2	0.0	0.0	35.6	30.6	0.0	10.3	0.0	13.6	0.0	11.4
LnGrp LOS	C	C			D	C		B		B		B
Approach Vol, veh/h		508			651			29			386	
Approach Delay, s/veh		23.6			33.7			10.3			12.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		52.0	0.0	38.0		52.0	10.2	27.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		32.5	5.0	39.0		32.5	7.5	36.5				
Max Q Clear Time (g_c+I1), s		2.7	0.0	17.1		12.0	6.0	20.2				
Green Ext Time (p_c), s		0.1	0.0	2.4		1.5	0.0	3.1				

Intersection Summary												
HCM 7th Control Delay, s/veh			24.9									
HCM 7th LOS			C									



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	100	100			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.938	
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	1863	1863	1747	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1863	1747	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	346			1064	387	
Travel Time (s)	7.9			24.2	12.3	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	92	0	0	110	105	89
Future Vol, veh/h	92	0	0	110	105	89
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	100	0	0	120	114	97

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	282	163	211	0	-	0
Stage 1	163	-	-	-	-	-
Stage 2	120	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	708	882	1360	-	-	-
Stage 1	867	-	-	-	-	-
Stage 2	906	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	708	882	1360	-	-	-
Mov Cap-2 Maneuver	708	-	-	-	-	-
Stage 1	867	-	-	-	-	-
Stage 2	906	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.92	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1360	-	708	-	-	-
HCM Lane V/C Ratio	-	-	0.141	-	-	-
HCM Control Delay (s/veh)	0	-	10.9	0	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	100	0	100			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.876	
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	1863	1863	1632	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1863	1632	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	348			849	1064	
Travel Time (s)	7.9			19.3	24.2	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	104	0	0	6	8	97
Future Vol, veh/h	104	0	0	6	8	97
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	113	0	0	7	9	105

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	68	61	114	0	-	0
Stage 1	61	-	-	-	-	-
Stage 2	7	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	937	1004	1475	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	1017	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	937	1004	1475	-	-	-
Mov Cap-2 Maneuver	937	-	-	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	1017	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.37	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1475	-	937	-	-	-
HCM Lane V/C Ratio	-	-	0.121	-	-	-
HCM Control Delay (s/veh)	0	-	9.4	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	100	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.871	
Flt Protected	0.950			0.950		
Satd. Flow (prot)	1770	1583	0	1770	1622	0
Flt Permitted	0.950			0.950		
Satd. Flow (perm)	1770	1583	0	1770	1622	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	577			485	556	
Travel Time (s)	13.1			11.0	12.6	

Intersection Summary	
Area Type:	Other

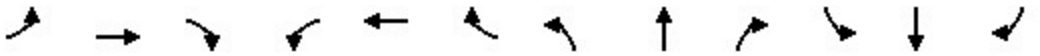
Intersection	
Int Delay, s/veh	9.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	122	237	268	0	4	86
Future Vol, veh/h	122	237	268	0	4	86
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	133	258	291	0	4	93

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	634	51	98	0	-	0
Stage 1	51	-	-	-	-	-
Stage 2	583	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	443	1017	1495	-	-	-
Stage 1	971	-	-	-	-	-
Stage 2	558	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	357	1017	1495	-	-	-
Mov Cap-2 Maneuver	357	-	-	-	-	-
Stage 1	782	-	-	-	-	-
Stage 2	558	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	13.54	7.99	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1495	-	357	1017	-	-
HCM Lane V/C Ratio	0.195	-	0.371	0.253	-	-
HCM Control Delay (s/veh)	8	0	20.9	9.7	-	-
HCM Lane LOS	A	A	C	A	-	-
HCM 95th %tile Q(veh)	0.7	-	1.7	1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.985			0.865			0.901	
Flt Protected		0.968			0.976						0.987	
Satd. Flow (prot)	0	1803	0	0	1791	0	0	1611	0	0	1657	0
Flt Permitted		0.968			0.976						0.987	
Satd. Flow (perm)	0	1803	0	0	1791	0	0	1611	0	0	1657	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		610			346			1050			199	
Travel Time (s)		13.9			7.9			23.9			4.5	

Intersection Summary	
Area Type:	Other

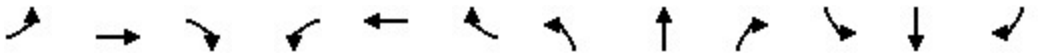
Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	49	26	0	44	34	10	0	0	57	9	0	25
Future Vol, veh/h	49	26	0	44	34	10	0	0	57	9	0	25
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	53	28	0	48	37	11	0	0	62	10	0	27

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	48	0	0	28	0	0	267	278	28	273	273	42
Stage 1	-	-	-	-	-	-	135	135	-	138	138	-
Stage 2	-	-	-	-	-	-	133	143	-	135	135	-
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	1559	-	-	1585	-	-	685	630	1047	680	634	1028
Stage 1	-	-	-	-	-	-	869	785	-	865	782	-
Stage 2	-	-	-	-	-	-	871	778	-	869	785	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1559	-	-	1585	-	-	624	589	1047	598	593	1028
Mov Cap-2 Maneuver	-	-	-	-	-	-	624	589	-	598	593	-
Stage 1	-	-	-	-	-	-	838	758	-	838	758	-
Stage 2	-	-	-	-	-	-	822	754	-	789	758	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	4.83	3.67	8.66	9.35
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1047	1176	-	-	861	-	-	864
HCM Lane V/C Ratio	0.059	0.034	-	-	0.03	-	-	0.043
HCM Control Delay (s/veh)	8.7	7.4	0	-	7.3	0	-	9.4
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.870			0.895			0.966			0.909	
Flt Protected	0.950			0.950				0.969			0.988	
Satd. Flow (prot)	1770	1621	0	1770	1667	0	0	1744	0	0	1673	0
Flt Permitted	0.950			0.950				0.969			0.988	
Satd. Flow (perm)	1770	1621	0	1770	1667	0	0	1744	0	0	1673	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		391			348			346			1050	
Travel Time (s)		8.9			7.9			7.9			23.9	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	9.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	108	17	105	41	17	39	119	18	46	44	16	122
Future Vol, veh/h	108	17	105	41	17	39	119	18	46	44	16	122
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	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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	117	18	114	45	18	42	129	20	50	48	17	133

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	61	0	0	133	0	0	427	460	76	392	496	40
Stage 1	-	-	-	-	-	-	310	310	-	129	129	-
Stage 2	-	-	-	-	-	-	116	150	-	263	367	-
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	-	-	1452	-	-	538	498	986	567	475	1032
Stage 1	-	-	-	-	-	-	700	659	-	875	790	-
Stage 2	-	-	-	-	-	-	888	773	-	742	622	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1542	-	-	1452	-	-	405	446	986	463	425	1032
Mov Cap-2 Maneuver	-	-	-	-	-	-	405	446	-	463	425	-
Stage 1	-	-	-	-	-	-	647	609	-	848	765	-
Stage 2	-	-	-	-	-	-	733	749	-	630	574	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	3.53	3.19	17.7	11.81
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	480	1542	-	-	1452	-	-	726
HCM Lane V/C Ratio	0.414	0.076	-	-	0.031	-	-	0.273
HCM Control Delay (s/veh)	17.7	7.5	-	-	7.6	-	-	11.8
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	2	0.2	-	-	0.1	-	-	1.1



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.984	
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1863	1833	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1863	1833	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	323			387	467	
Travel Time (s)	7.3			8.5	9.9	

Intersection Summary	
Area Type:	Other

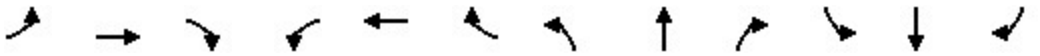
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	0	0	203	194	26
Future Vol, veh/h	13	0	0	203	194	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	0	0	221	211	28

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	446	225	239	0	-	0
Stage 1	225	-	-	-	-	-
Stage 2	221	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	570	814	1328	-	-	-
Stage 1	812	-	-	-	-	-
Stage 2	816	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	570	814	1328	-	-	-
Mov Cap-2 Maneuver	570	-	-	-	-	-
Stage 1	812	-	-	-	-	-
Stage 2	816	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	11.47	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1328	-	570	-	-
HCM Lane V/C Ratio	-	-	0.025	-	-
HCM Control Delay (s/veh)	0	-	11.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		150	125		100	225		150	350		0
Storage Lanes	1		1	1		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850			0.850		0.962	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	3405	0
Flt Permitted	0.585			0.230			0.617			0.533		
Satd. Flow (perm)	1090	3539	1583	428	3539	1583	1149	3539	1583	1926	3405	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			182			228			264		48	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		592			902			575			563	
Travel Time (s)		13.5			20.5			13.1			12.8	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	106	517	39	233	248	210	11	110	243	270	148
Future Volume (vph)	106	517	39	233	248	210	11	110	243	270	148
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0
Minimum Split (s)	11.0	33.0	33.0	11.0	39.0	39.0	10.0	30.0	30.0	10.0	30.0
Total Split (s)	14.0	33.0	33.0	19.0	38.0	38.0	10.0	24.0	24.0	14.0	28.0
Total Split (%)	15.6%	36.7%	36.7%	21.1%	42.2%	42.2%	11.1%	26.7%	26.7%	15.6%	31.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	28.3	20.6	20.6	38.1	27.8	27.8	29.2	23.7	23.7	38.7	36.9
Actuated g/C Ratio	0.31	0.23	0.23	0.42	0.31	0.31	0.32	0.26	0.26	0.43	0.41
v/c Ratio	0.29	0.69	0.08	0.69	0.25	0.35	0.03	0.13	0.43	0.30	0.15
Control Delay (s/veh)	16.8	36.1	0.3	26.6	23.9	4.7	18.2	28.1	6.6	17.9	15.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.8	36.1	0.3	26.6	23.9	4.7	18.2	28.1	6.6	17.9	15.6
LOS	B	D	A	C	C	A	B	C	A	B	B
Approach Delay (s/veh)		31.0			19.0			13.5			16.9
Approach LOS		C			B			B			B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay (s/veh): 21.2	Intersection LOS: C
Intersection Capacity Utilization 56.6%	ICU Level of Service B
Analysis Period (min) 15	

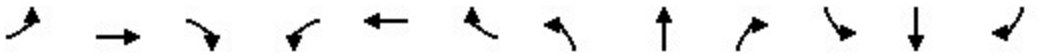
Splits and Phases: 1: Prairie Hawk Dr. & Wolfensberger Rd.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	115	562	42	253	270	228	12	120	264	293	215
v/c Ratio	0.29	0.69	0.08	0.69	0.25	0.35	0.03	0.13	0.43	0.30	0.15
Control Delay (s/veh)	16.8	36.1	0.3	26.6	23.9	4.7	18.2	28.1	6.6	17.9	15.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.8	36.1	0.3	26.6	23.9	4.7	18.2	28.1	6.6	17.9	15.6
Queue Length 50th (ft)	38	155	0	92	62	0	4	27	0	52	28
Queue Length 95th (ft)	62	193	0	128	86	47	16	54	63	89	70
Internal Link Dist (ft)		512			822			495			483
Turn Bay Length (ft)	325		150	125		100	225		150	350	
Base Capacity (vph)	407	1061	602	375	1258	709	410	930	610	986	1425
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.53	0.07	0.67	0.21	0.32	0.03	0.13	0.43	0.30	0.15

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	517	39	233	248	210	11	110	243	270	148	50
Future Volume (veh/h)	106	517	39	233	248	210	11	110	243	270	148	50
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	115	562	42	253	270	228	12	120	264	293	161	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	387	729	325	358	948	423	474	1139	508	1003	1019	330
Arrive On Green	0.07	0.21	0.21	0.13	0.27	0.27	0.01	0.32	0.32	0.08	0.39	0.39
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	3456	2638	855
Grp Volume(v), veh/h	115	562	42	253	270	228	12	120	264	293	107	108
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1728	1777	1716
Q Serve(g_s), s	4.5	13.4	1.9	9.6	5.4	11.1	0.4	2.1	12.2	4.8	3.5	3.7
Cycle Q Clear(g_c), s	4.5	13.4	1.9	9.6	5.4	11.1	0.4	2.1	12.2	4.8	3.5	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.50
Lane Grp Cap(c), veh/h	387	729	325	358	948	423	474	1139	508	1003	686	663
V/C Ratio(X)	0.30	0.77	0.13	0.71	0.28	0.54	0.03	0.11	0.52	0.29	0.16	0.16
Avail Cap(c_a), veh/h	423	1066	476	383	1264	564	533	1139	508	1042	686	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.4	33.8	29.2	23.7	26.2	28.2	20.2	21.5	24.9	16.7	18.0	18.1
Incr Delay (d2), s/veh	0.4	2.1	0.2	5.5	0.2	1.1	0.0	0.2	3.8	0.2	0.5	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	5.9	0.7	4.4	2.3	4.2	0.2	0.9	5.0	1.9	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.8	35.9	29.4	29.2	26.3	29.3	20.2	21.7	28.7	16.9	18.5	18.6
LnGrp LOS	C	D	C	C	C	C	C	C	C	B	B	B
Approach Vol, veh/h		719			751			396			508	
Approach Delay, s/veh		33.9			28.2			26.3			17.6	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	34.8	17.7	24.5	7.0	40.8	12.2	30.0
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	18.0	13.0	27.0	4.0	22.0	8.0	32.0
Max Q Clear Time (g_c+I1), s	6.8	14.2	11.6	15.4	2.4	5.7	6.5	13.1
Green Ext Time (p_c), s	0.1	0.6	0.1	3.0	0.0	1.0	0.0	2.4

Intersection Summary	
HCM 7th Control Delay, s/veh	27.3
HCM 7th LOS	C

Notes

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



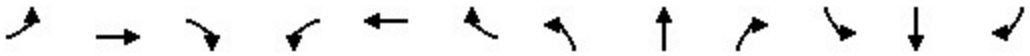
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						0.850
Flt Protected	0.950			0.999		
Satd. Flow (prot)	1770	0	0	1861	1863	1583
Flt Permitted	0.950			0.999		
Satd. Flow (perm)	1770	0	0	1861	1863	1583
Link Speed (mph)	30			30	30	
Link Distance (ft)	519			602	535	
Travel Time (s)	11.8			13.7	12.2	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	3.3
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	315	64	438
Demand Flow Rate, veh/h	321	65	446
Vehicles Circulating, veh/h	173	321	1
Vehicles Exiting, veh/h	1	173	385
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.8	4.3	1.4
Approach LOS	A	A	A

Lane	Left	Left	Left	Bypass
Designated Moves	LR	LT	T	R
Assumed Moves	LR	LT	T	
RT Channelized				Free
Lane Util	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	
A (Intercept)	1380	1380	1380	
B (Slope)	1.02e-3	1.02e-3	1.02e-3	
Entry Flow, veh/h	321	65	173	273
Cap Entry Lane, veh/h	1157	995	1378	1938
Entry HV Adj Factor	0.981	0.981	0.980	0.980
Flow Entry, veh/h	315	64	170	268
Cap Entry, veh/h	1135	975	1351	1900
V/C Ratio	0.278	0.065	0.126	0.141
Control Delay, s/veh	5.8	4.3	3.7	0.0
LOS	A	A	A	A
95th %tile Queue, veh	1	0	0	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.865						0.879	
Flt Protected		0.953						0.979			0.996	
Satd. Flow (prot)	0	1770	0	0	1611	0	0	1824	0	0	1631	0
Flt Permitted		0.953						0.979			0.996	
Satd. Flow (perm)	0	1770	0	0	1611	0	0	1824	0	0	1631	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		602			909			1975			245	
Travel Time (s)		13.7			20.7			44.9			5.6	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	46	0	1	0	0	11	3	4	0	11	4	127
Future Vol, veh/h	46	0	1	0	0	11	3	4	0	11	4	127
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	50	0	1	0	0	12	3	4	0	12	4	138

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	12	0	0	1	0	0	103	113	1	108	107	6
Stage 1	-	-	-	-	-	-	101	101	-	6	6	-
Stage 2	-	-	-	-	-	-	2	12	-	102	101	-
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	1607	-	-	1622	-	-	878	778	1084	871	783	1077
Stage 1	-	-	-	-	-	-	906	812	-	1016	891	-
Stage 2	-	-	-	-	-	-	1021	886	-	904	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1607	-	-	1622	-	-	737	753	1084	839	759	1077
Mov Cap-2 Maneuver	-	-	-	-	-	-	737	753	-	839	759	-
Stage 1	-	-	-	-	-	-	877	787	-	1016	891	-
Stage 2	-	-	-	-	-	-	885	886	-	871	786	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	7.16	0	9.87	9.06
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	746	1468	-	-	1622	-	-	1042
HCM Lane V/C Ratio	0.01	0.031	-	-	-	-	-	0.148
HCM Control Delay (s/veh)	9.9	7.3	0	-	0	-	-	9.1
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	150		0	0		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.996						0.994	
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	1863	0	1770	1855	0	1863	1863	0	1863	1852	0
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	1863	0	1770	1855	0	1863	1863	0	1863	1852	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		340			1975			760			832	
Travel Time (s)		7.7			44.9			17.3			18.9	

Intersection Summary	
Area Type:	Other

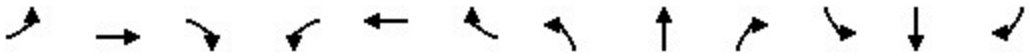
Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	15	0	29	32	1	0	240	0	0	172	7
Future Vol, veh/h	3	15	0	29	32	1	0	240	0	0	172	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	0	-	-	150	-	-
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	16	0	32	35	1	0	261	0	0	187	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	469	452	191	456	455	261	195	0	0	261	0	0
Stage 1	191	191	-	261	261	-	-	-	-	-	-	-
Stage 2	278	261	-	195	195	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	505	503	851	515	501	778	1379	-	-	1304	-	-
Stage 1	811	742	-	744	692	-	-	-	-	-	-	-
Stage 2	728	692	-	807	740	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	469	503	851	498	501	778	1379	-	-	1304	-	-
Mov Cap-2 Maneuver	469	503	-	498	501	-	-	-	-	-	-	-
Stage 1	811	742	-	744	692	-	-	-	-	-	-	-
Stage 2	691	692	-	789	740	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	12.45	12.68	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1379	-	-	469	503	498	506	1304	-	-
HCM Lane V/C Ratio	-	-	-	0.007	0.032	0.063	0.071	-	-	-
HCM Control Delay (s/veh)	0	-	-	12.7	12.4	12.7	12.7	0	-	-
HCM Lane LOS	A	-	-	B	B	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.2	0.2	0	-	-



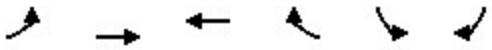
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	250		0	125		0	175		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.985			0.975			0.950			0.993	
Flt Protected		0.998			0.994			0.992			0.981	
Satd. Flow (prot)	0	3479	0	0	3430	0	0	3335	0	0	3448	0
Flt Permitted		0.998			0.994			0.992			0.981	
Satd. Flow (perm)	0	3479	0	0	3430	0	0	3335	0	0	3448	0
Link Speed (mph)		40			35			45			45	
Link Distance (ft)		631			610			567			842	
Travel Time (s)		10.8			11.9			8.6			12.8	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	7.0
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	627	479	250	497
Demand Flow Rate, veh/h	639	489	256	507
Vehicles Circulating, veh/h	547	195	773	447
Vehicles Exiting, veh/h	407	834	413	237
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.7	5.0	7.3	6.7
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.469	0.531	0.470	0.530	0.469	0.531	0.469	0.531
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	300	339	230	259	120	136	238	269
Cap Entry Lane, veh/h	816	892	1128	1203	663	736	895	971
Entry HV Adj Factor	0.983	0.981	0.979	0.981	0.981	0.976	0.982	0.980
Flow Entry, veh/h	295	332	225	254	118	133	234	264
Cap Entry, veh/h	802	875	1105	1180	650	718	879	952
V/C Ratio	0.368	0.380	0.204	0.215	0.181	0.185	0.266	0.277
Control Delay, s/veh	8.9	8.5	5.1	5.0	7.7	7.1	6.9	6.6
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	2	2	1	1	1	1	1	1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	150			150	0	0
Storage Lanes	1			1	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.996	
Flt Protected	0.950				0.954	
Satd. Flow (prot)	1770	3539	3539	1583	1770	0
Flt Permitted	0.950				0.954	
Satd. Flow (perm)	1770	3539	3539	1583	1770	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		350	935		1177	
Travel Time (s)		8.0	21.3		26.8	

Intersection Summary	
Area Type:	Other

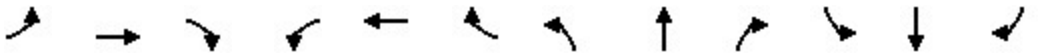
Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	710	399	83	141	5
Future Vol, veh/h	8	710	399	83	141	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	772	434	90	153	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	524	0	-	0	837	217
Stage 1	-	-	-	-	434	-
Stage 2	-	-	-	-	403	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1039	-	-	-	305	788
Stage 1	-	-	-	-	621	-
Stage 2	-	-	-	-	643	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1039	-	-	-	303	788
Mov Cap-2 Maneuver	-	-	-	-	303	-
Stage 1	-	-	-	-	616	-
Stage 2	-	-	-	-	643	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.09	0	28.28
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1039	-	-	-	309
HCM Lane V/C Ratio	0.008	-	-	-	0.513
HCM Control Delay (s/veh)	8.5	-	-	-	28.3
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	2.8



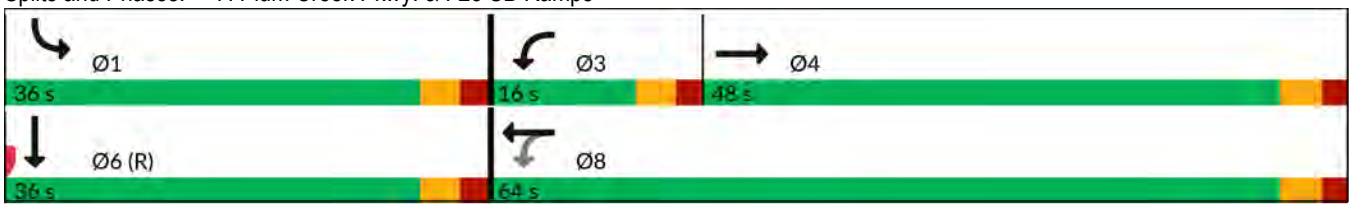
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	375		0	0		0
Storage Lanes	0		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt			0.850									0.850
Flt Protected				0.950						0.950	0.953	
Satd. Flow (prot)	0	5085	1583	1770	3539	0	0	0	0	3221	1615	1583
Flt Permitted				0.094						0.950	0.953	
Satd. Flow (perm)	0	5085	1583	175	3539	0	0	0	0	3221	1615	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			294									447
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		510			603			473			545	
Travel Time (s)		11.6			13.7			10.8			12.4	

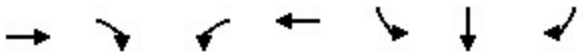
Intersection Summary	
Area Type:	Other

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	1227	334	206	884	611	5	411
Future Volume (vph)	1227	334	206	884	611	5	411
Turn Type	NA	Free	pm+pt	NA	Prot	NA	Free
Protected Phases	4		3	8	1	6	
Permitted Phases		Free	8				Free
Detector Phase	4		3	8	1	6	
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5		10.0	22.5	10.0	22.5	
Total Split (s)	48.0		16.0	64.0	36.0	36.0	
Total Split (%)	48.0%		16.0%	64.0%	36.0%	36.0%	
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0		5.0	5.0	5.0	5.0	
Lead/Lag	Lag		Lead				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	None		None	None	None	C-Max	
Act Effct Green (s)	37.6	100.0	53.4	53.4	36.6	36.6	100.0
Actuated g/C Ratio	0.38	1.00	0.53	0.53	0.37	0.37	1.00
v/c Ratio	0.70	0.23	0.85	0.51	0.38	0.38	0.28
Control Delay (s/veh)	28.2	0.3	48.7	15.6	25.6	27.2	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.2	0.3	48.7	15.6	25.6	27.2	0.4
LOS	C	A	D	B	C	C	A
Approach Delay (s/veh)	22.3			21.8		15.9	
Approach LOS	C			C		B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 78 (78%), Referenced to phase 2: and 6:SBT, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay (s/veh): 20.3	Intersection LOS: C
Intersection Capacity Utilization 59.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 7: Plum Creek Pkwy. & I-25 SB Ramps

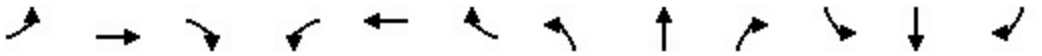




Lane Group	EBT	EBR	WBL	WBT	SBL	SBR	
Lane Group Flow (vph)	1334	363	224	961	445	224	447
v/c Ratio	0.70	0.23	0.85	0.51	0.38	0.38	0.28
Control Delay (s/veh)	28.2	0.3	48.7	15.6	25.6	27.2	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.2	0.3	48.7	15.6	25.6	27.2	0.4
Queue Length 50th (ft)	256	0	88	192	114	115	0
Queue Length 95th (ft)	282	0	#204	215	173	203	0
Internal Link Dist (ft)	430			523		465	
Turn Bay Length (ft)							
Base Capacity (vph)	2186	1583	268	2088	1179	591	1583
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.23	0.84	0.46	0.38	0.38	0.28

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)	0	1227	334	206	884	0	0	0	0	611	5	411
Future Volume (veh/h)	0	1227	334	206	884	0	0	0	0	611	5	411
Initial Q (Qb), veh	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
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1334	0	224	961	0				668	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1758		293	1750	0				2179	0	
Arrive On Green	0.00	0.34	0.00	0.10	0.49	0.00				0.41	0.00	0.00
Sat Flow, veh/h	0	5274	1585	1781	3647	0				5344	0	1585
Grp Volume(v), veh/h	0	1334	0	224	961	0				668	0	0
Grp Sat Flow(s),veh/h/ln	0	1702	1585	1781	1777	0				1781	0	1585
Q Serve(g_s), s	0.0	23.2	0.0	7.7	18.8	0.0				8.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	23.2	0.0	7.7	18.8	0.0				8.5	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1758		293	1750	0				2179	0	
V/C Ratio(X)	0.00	0.76		0.77	0.55	0.00				0.31	0.00	
Avail Cap(c_a), veh/h	0	2196		314	2097	0				2179	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	29.1	0.0	22.0	17.7	0.0				20.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.2	0.0	10.1	0.3	0.0				0.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.4	0.0	3.9	7.4	0.0				3.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	30.3	0.0	32.1	17.9	0.0				20.1	0.0	0.0
LnGrp LOS		C		C	B					C		
Approach Vol, veh/h		1334			1185						668	
Approach Delay, s/veh		30.3			20.6						20.1	
Approach LOS		C			C						C	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		14.8	39.4		45.8		54.2					
Change Period (Y+Rc), s		5.0	5.0		5.0		5.0					
Max Green Setting (Gmax), s		11.0	43.0		31.0		59.0					
Max Q Clear Time (g_c+I1), s		9.7	25.2		10.5		20.8					
Green Ext Time (p_c), s		0.1	9.2		2.6		8.5					

Intersection Summary	
HCM 7th Control Delay, s/veh	24.6
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

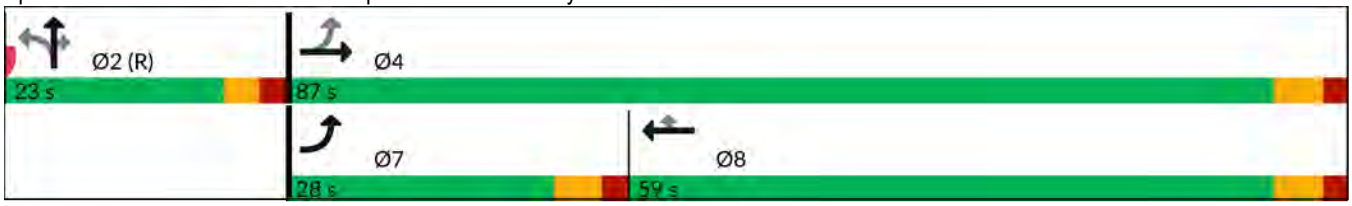
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	400		0	400		175	0		0
Storage Lanes	2		0	1		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	0.91	0.95	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.928	0.850		0.988	0.850			
Flt Protected	0.950						0.950	0.957				
Satd. Flow (prot)	3433	5085	0	0	3146	1441	1681	1603	1504	0	0	0
Flt Permitted	0.067						0.950	0.957				
Satd. Flow (perm)	242	5085	0	0	3146	1441	1681	1603	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					294	495		3	89			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		253			709			503			557	
Travel Time (s)		5.8			16.1			11.4			12.7	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	596	1287	746	1387	343	3	142
Future Volume (vph)	596	1287	746	1387	343	3	142
Turn Type	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	8			2	
Permitted Phases	4			8	2		2
Detector Phase	7	4	8	8	2	2	2
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	28.0	87.0	59.0	59.0	23.0	23.0	23.0
Total Split (%)	25.5%	79.1%	53.6%	53.6%	20.9%	20.9%	20.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	81.0	81.0	53.4	53.4	18.0	18.0	18.0
Actuated g/C Ratio	0.74	0.74	0.49	0.49	0.16	0.16	0.16
v/c Ratio	0.80	0.37	0.93	0.79	0.72	0.73	0.43
Control Delay (s/veh)	37.1	5.6	23.2	10.1	59.6	60.3	21.3
Queue Delay	51.1	3.9	0.3	0.3	0.0	0.0	0.0
Total Delay (s/veh)	88.1	9.5	23.4	10.4	59.6	60.3	21.3
LOS	F	A	C	B	E	E	C
Approach Delay (s/veh)		34.4	19.2			49.8	
Approach LOS		C	B			D	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay (s/veh): 28.8	Intersection LOS: C
Intersection Capacity Utilization 99.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 8: NB I-25 Ramp & Plum Creek Pkwy.

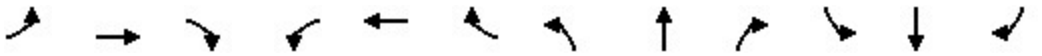




Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	648	1399	1565	754	198	193	139
v/c Ratio	0.80	0.37	0.93	0.79	0.72	0.73	0.43
Control Delay (s/veh)	37.1	5.6	23.2	10.1	59.6	60.3	21.3
Queue Delay	51.1	3.9	0.3	0.3	0.0	0.0	0.0
Total Delay (s/veh)	88.1	9.5	23.4	10.4	59.6	60.3	21.3
Queue Length 50th (ft)	171	112	180	100	141	141	32
Queue Length 95th (ft)	239	133	#248	131	#247	#257	95
Internal Link Dist (ft)		173	629			423	
Turn Bay Length (ft)					400		175
Base Capacity (vph)	816	3744	1678	953	275	264	320
Starvation Cap Reductn	232	2232	8	22	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.11	0.93	0.94	0.81	0.72	0.73	0.43

Intersection Summary

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

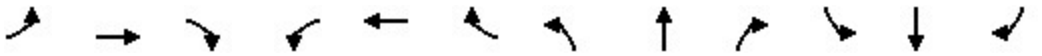


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	596	1287	0	0	746	1387	343	3	142	0	0	0
Future Volume (veh/h)	596	1287	0	0	746	1387	343	3	142	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	648	1399	0	0	811	1508	422	0	104			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	730	3586	0	0	901	1527	704	0	313			
Arrive On Green	0.17	0.70	0.00	0.00	0.48	0.48	0.20	0.00	0.20			
Sat Flow, veh/h	3456	5274	0	0	1870	3170	3563	0	1585			
Grp Volume(v), veh/h	648	1399	0	0	811	1508	422	0	104			
Grp Sat Flow(s),veh/h/ln	1728	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	15.0	12.4	0.0	0.0	43.6	51.7	11.9	0.0	6.2			
Cycle Q Clear(g_c), s	15.0	12.4	0.0	0.0	43.6	51.7	11.9	0.0	6.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	730	3586	0	0	901	1527	704	0	313			
V/C Ratio(X)	0.89	0.39	0.00	0.00	0.90	0.99	0.60	0.00	0.33			
Avail Cap(c_a), veh/h	848	3760	0	0	901	1527	704	0	313			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.32	0.32	0.00	0.00	0.57	0.57	1.00	0.00	1.00			
Uniform Delay (d), s/veh	33.6	6.7	0.0	0.0	26.1	28.2	40.2	0.0	37.9			
Incr Delay (d2), s/veh	3.6	0.0	0.0	0.0	7.4	14.5	3.7	0.0	2.8			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.8	4.0	0.0	0.0	20.4	21.7	5.5	0.0	2.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.3	6.7	0.0	0.0	33.5	42.6	43.9	0.0	40.7			
LnGrp LOS	D	A			C	D	D		D			
Approach Vol, veh/h		2047			2319			526				
Approach Delay, s/veh		16.4			39.4			43.3				
Approach LOS		B			D			D				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		26.7		83.3			24.3	59.0				
Change Period (Y+Rc), s		5.0		6.0			6.0	6.0				
Max Green Setting (Gmax), s		18.0		81.0			22.0	53.0				
Max Q Clear Time (g_c+I1), s		13.9		14.4			17.0	53.7				
Green Ext Time (p_c), s		0.8		15.9			1.2	0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	30.2
HCM 7th LOS	C

Notes
User approved volume balancing among the lanes for turning movement.



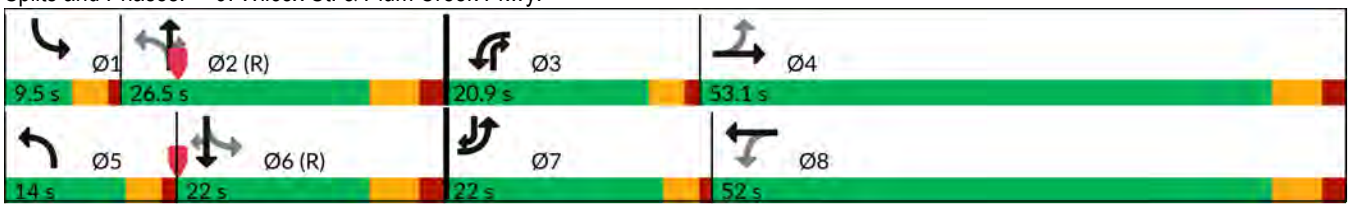
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		0	225		0	225		250	175		200
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.985				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	5009	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.080			0.254			0.549			0.665		
Satd. Flow (perm)	149	3539	1583	473	5009	0	1984	1863	1583	1239	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			208		21				69			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		709			907			521			491	
Travel Time (s)		16.1			20.6			11.8			11.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	290	940	184	61	1343	551	133	42	78	91	198
Future Volume (vph)	290	940	184	61	1343	551	133	42	78	91	198
Turn Type	pm+pt	NA	Free	pm+pt	NA	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	7	4		3	8	5	2	3	1	6	7
Permitted Phases	4		Free	8		2		2	6		6
Detector Phase	7	4		3	8	5	2	3	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	31.0		9.5	31.0	9.5	36.0	9.5	9.5	34.0	9.5
Total Split (s)	22.0	53.1		20.9	52.0	14.0	26.5	20.9	9.5	22.0	22.0
Total Split (%)	20.0%	48.3%		19.0%	47.3%	12.7%	24.1%	19.0%	8.6%	20.0%	20.0%
Yellow Time (s)	3.0	4.0		3.0	4.0	3.0	4.0	3.0	3.0	4.0	3.0
All-Red Time (s)	1.0	2.0		1.0	2.0	1.0	2.0	1.0	1.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	68.8	57.7	110.0	53.9	44.9	33.2	23.5	36.5	23.7	16.0	39.9
Actuated g/C Ratio	0.63	0.52	1.00	0.49	0.41	0.30	0.21	0.33	0.22	0.15	0.36
v/c Ratio	0.88	0.55	0.13	0.21	0.79	0.81	0.36	0.08	0.29	0.37	0.33
Control Delay (s/veh)	71.0	15.1	0.2	10.4	31.3	43.7	41.7	3.3	32.8	46.8	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	71.0	15.1	0.2	10.4	31.3	43.7	41.7	3.3	32.8	46.8	13.7
LOS	E	B	A	B	C	D	D	A	C	D	B
Approach Delay (s/veh)		24.6			30.5		41.0			26.0	
Approach LOS		C			C		D			C	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay (s/veh): 29.9	Intersection LOS: C
Intersection Capacity Utilization 82.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 9: Wilcox St. & Plum Creek Pkwy.

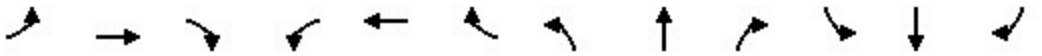




Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	315	1022	200	66	1624	599	145	46	85	99	215
v/c Ratio	0.88	0.55	0.13	0.21	0.79	0.81	0.36	0.08	0.29	0.37	0.33
Control Delay (s/veh)	71.0	15.1	0.2	10.4	31.3	43.7	41.7	3.3	32.8	46.8	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	71.0	15.1	0.2	10.4	31.3	43.7	41.7	3.3	32.8	46.8	13.7
Queue Length 50th (ft)	179	128	0	16	350	187	91	0	45	64	51
Queue Length 95th (ft)	#325	331	0	33	410	#262	154	15	85	117	111
Internal Link Dist (ft)		629			827		441			411	
Turn Bay Length (ft)	325			225		225		250	175		200
Base Capacity (vph)	358	1857	1583	473	2106	744	398	707	294	270	645
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.55	0.13	0.14	0.77	0.81	0.36	0.07	0.29	0.37	0.33

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)	290	940	184	61	1343	151	551	133	42	78	91	198
Future Volume (veh/h)	290	940	184	61	1343	151	551	133	42	78	91	198
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	315	1022	0	66	1460	164	599	145	46	85	99	215
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	339	1696		345	1769	199	789	470	461	379	394	551
Arrive On Green	0.27	0.95	0.00	0.04	0.38	0.38	0.09	0.25	0.25	0.05	0.21	0.21
Sat Flow, veh/h	1781	3554	1585	1781	4657	523	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	315	1022	0	66	1067	557	599	145	46	85	99	215
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1776	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	12.7	3.4	0.0	2.5	31.1	31.2	10.0	6.9	2.3	4.1	4.9	11.3
Cycle Q Clear(g_c), s	12.7	3.4	0.0	2.5	31.1	31.2	10.0	6.9	2.3	4.1	4.9	11.3
Prop In Lane	1.00		1.00	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	339	1696		345	1293	675	789	470	461	379	394	551
V/C Ratio(X)	0.93	0.60		0.19	0.83	0.83	0.76	0.31	0.10	0.22	0.25	0.39
Avail Cap(c_a), veh/h	387	1696		549	1424	743	789	470	461	379	394	551
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	1.4	0.0	19.3	30.8	30.8	34.1	33.4	28.5	31.6	36.2	27.1
Incr Delay (d2), s/veh	25.4	0.6	0.0	0.3	3.8	7.0	4.3	1.7	0.4	0.3	1.5	2.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.7	0.0	1.0	13.2	14.4	3.2	3.4	0.9	1.8	2.4	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.5	1.9	0.0	19.5	34.6	37.9	38.5	35.1	28.9	31.9	37.7	29.2
LnGrp LOS	D	A		B	C	D	D	D	C	C	D	C
Approach Vol, veh/h		1337			1690			790			399	
Approach Delay, s/veh		12.4			35.1			37.3			31.9	
Approach LOS		B			D			D			C	

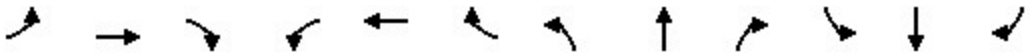
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	33.7	8.3	58.5	14.0	29.2	19.1	47.8
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	5.5	20.5	16.9	47.1	10.0	16.0	18.0	46.0
Max Q Clear Time (g_c+I1), s	6.1	8.9	4.5	5.4	12.0	13.3	14.7	33.2
Green Ext Time (p_c), s	0.0	0.6	0.1	9.5	0.0	0.3	0.3	8.6

Intersection Summary	
HCM 7th Control Delay, s/veh	28.0
HCM 7th LOS	C

Notes

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

Unsignalized Delay for [EBR] 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 Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.936									0.946	
Flt Protected		0.974						0.994				
Satd. Flow (prot)	0	1698	0	0	1863	0	0	3518	0	0	3348	0
Flt Permitted		0.974						0.994				
Satd. Flow (perm)	0	1698	0	0	1863	0	0	3518	0	0	3348	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		632			421			664			760	
Travel Time (s)		14.4			9.6			15.1			17.3	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	3.9
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	209	0	291	218
Demand Flow Rate, veh/h	213	0	297	223
Vehicles Circulating, veh/h	142	409	112	38
Vehicles Exiting, veh/h	119	0	243	371
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.4	0.0	3.9	3.4
Approach LOS	A	-	A	A

Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.471	0.529	0.471	0.529
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1420	1420	1350	1420	1350	1420
B (Slope)	8.501e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	213	0	140	157	105	118
Cap Entry Lane, veh/h	1259	1003	1218	1291	1303	1375
Entry HV Adj Factor	0.981	1.000	0.977	0.982	0.977	0.980
Flow Entry, veh/h	209	0	137	154	103	116
Cap Entry, veh/h	1235	1003	1189	1268	1273	1348
V/C Ratio	0.169	0.000	0.115	0.122	0.081	0.086
Control Delay, s/veh	4.4	3.6	4.0	3.8	3.5	3.4
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	0	0	0	0	0

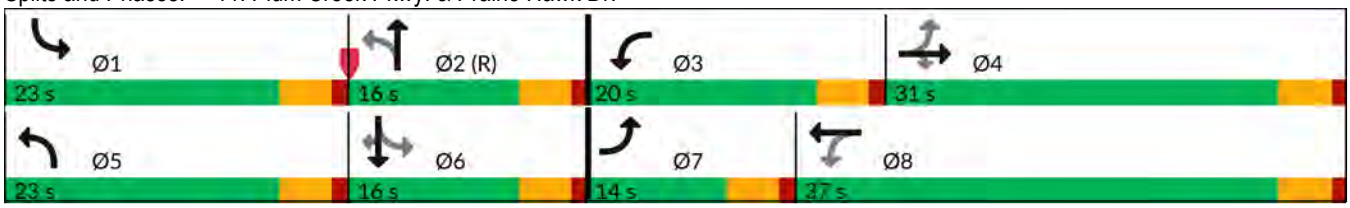
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	250		250	250		0	250		150	250		150
Storage Lanes	1		1	2		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	3433	3539	1583	1770	3539	1583	3433	3539	1583
Flt Permitted	0.196			0.195			0.722			0.728		
Satd. Flow (perm)	365	3539	1583	705	3539	1583	1345	3539	1583	2631	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			182			454			322			182
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		881			686			431			741	
Travel Time (s)		20.0			15.6			9.8			16.8	

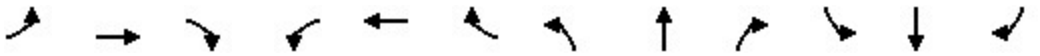
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	142	643	76	225	653	418	107	40	599	319	47	90
Future Volume (vph)	142	643	76	225	653	418	107	40	599	319	47	90
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		Free	2		Free	6		6
Detector Phase	7	4	4	3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.5	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	9.0	22.5	22.5	9.5	22.5		22.5	17.0		22.5	17.0	17.0
Total Split (s)	14.0	31.0	31.0	20.0	37.0		23.0	16.0		23.0	16.0	16.0
Total Split (%)	15.6%	34.4%	34.4%	22.2%	41.1%		25.6%	17.8%		25.6%	17.8%	17.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		Max	C-Max		Max	Max	Max
Act Effct Green (s)	34.0	25.0	25.0	34.6	25.3	90.0	37.7	11.5	90.0	37.7	11.5	11.5
Actuated g/C Ratio	0.38	0.28	0.28	0.38	0.28	1.00	0.42	0.13	1.00	0.42	0.13	0.13
v/c Ratio	0.55	0.71	0.15	0.44	0.71	0.29	0.17	0.10	0.41	0.26	0.11	0.27
Control Delay (s/veh)	22.9	33.1	0.5	18.6	34.9	0.2	16.4	35.3	0.8	16.1	35.5	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.9	33.1	0.5	18.6	34.9	0.2	16.4	35.3	0.8	16.1	35.5	1.8
LOS	C	C	A	B	C	A	B	D	A	B	D	A
Approach Delay (s/veh)		28.5			20.9			4.9			15.3	
Approach LOS		C			C			A			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay (s/veh): 18.5	Intersection LOS: B
Intersection Capacity Utilization 52.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 11: Plum Creek Pkwy. & Prairie Hawk Dr.

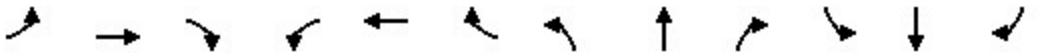




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	154	699	83	245	710	454	116	43	651	347	51	98
v/c Ratio	0.55	0.71	0.15	0.44	0.71	0.29	0.17	0.10	0.41	0.26	0.11	0.27
Control Delay (s/veh)	22.9	33.1	0.5	18.6	34.9	0.2	16.4	35.3	0.8	16.1	35.5	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.9	33.1	0.5	18.6	34.9	0.2	16.4	35.3	0.8	16.1	35.5	1.8
Queue Length 50th (ft)	53	187	0	56	207	0	36	11	0	57	13	0
Queue Length 95th (ft)	78	224	0	m67	m225	m0	80	27	0	100	31	0
Internal Link Dist (ft)		801			606			351			661	
Turn Bay Length (ft)	250		250	250			250		150	250		150
Base Capacity (vph)	288	1090	613	773	1277	1583	687	452	1583	1335	452	361
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	0.53	0.64	0.14	0.32	0.56	0.29	0.17	0.10	0.41	0.26	0.11	0.27

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)	142	643	76	225	653	418	107	40	599	319	47	90
Future Volume (veh/h)	142	643	76	225	653	418	107	40	599	319	47	90
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	154	699	83	245	710	0	116	43	0	347	51	98
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	280	921	411	537	904		750	911		1524	911	406
Arrive On Green	0.08	0.26	0.26	0.08	0.25	0.00	0.21	0.26	0.00	0.21	0.26	0.26
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	154	699	83	245	710	0	116	43	0	347	51	98
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1777	1585	1728	1777	1585
Q Serve(g_s), s	5.6	16.3	3.7	4.6	16.8	0.0	3.4	0.8	0.0	5.4	1.0	4.4
Cycle Q Clear(g_c), s	5.6	16.3	3.7	4.6	16.8	0.0	3.4	0.8	0.0	5.4	1.0	4.4
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	280	921	411	537	904		750	911		1524	911	406
V/C Ratio(X)	0.55	0.76	0.20	0.46	0.79		0.15	0.05		0.23	0.06	0.24
Avail Cap(c_a), veh/h	318	1046	467	860	1283		750	911		1524	911	406
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	30.7	26.1	23.2	31.3	0.0	13.9	25.2	0.0	14.5	25.3	26.5
Incr Delay (d2), s/veh	1.7	2.9	0.2	0.6	2.1	0.0	0.4	0.1	0.0	0.3	0.1	1.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	7.2	1.4	1.9	7.3	0.0	1.4	0.4	0.0	2.1	0.4	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.2	33.6	26.3	23.9	33.4	0.0	14.4	25.3	0.0	14.8	25.4	27.9
LnGrp LOS	C	C	C	C	C		B	C		B	C	C
Approach Vol, veh/h		936			955			159			496	
Approach Delay, s/veh		31.6			31.0			17.3			18.5	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	27.6	11.6	27.8	23.0	27.6	12.0	27.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.5	11.5	15.5	26.5	18.5	11.5	9.5	32.5
Max Q Clear Time (g_c+I1), s	7.4	2.8	6.6	18.3	5.4	6.4	7.6	18.8
Green Ext Time (p_c), s	0.9	0.1	0.5	3.2	0.2	0.2	0.1	4.1

Intersection Summary	
HCM 7th Control Delay, s/veh	27.9
HCM 7th LOS	C

Notes

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

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



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	150	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Ped Bike Factor						
Frt		0.865		0.850		
Flt Protected					0.950	
Satd. Flow (prot)	0	1611	3539	1583	1770	3539
Flt Permitted					0.950	
Satd. Flow (perm)	0	1611	3539	1583	1770	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	1150		741			664
Travel Time (s)	26.1		16.8			15.1

Intersection Summary	
Area Type:	Other

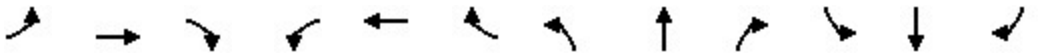
Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	190	637	29	29	499
Future Vol, veh/h	0	190	637	29	29	499
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	Free	-	None
Storage Length	-	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	207	692	32	32	542

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	346	0	-	692	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	650	-	0	899	-
Stage 1	0	-	-	0	-	-
Stage 2	0	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	650	-	-	899	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	13.1	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	WBLn1	SBL	SBT
Capacity (veh/h)	-	650	899	-
HCM Lane V/C Ratio	-	0.318	0.035	-
HCM Control Delay (s/veh)	-	13.1	9.2	-
HCM Lane LOS	-	B	A	-
HCM 95th %tile Q(veh)	-	1.4	0.1	-



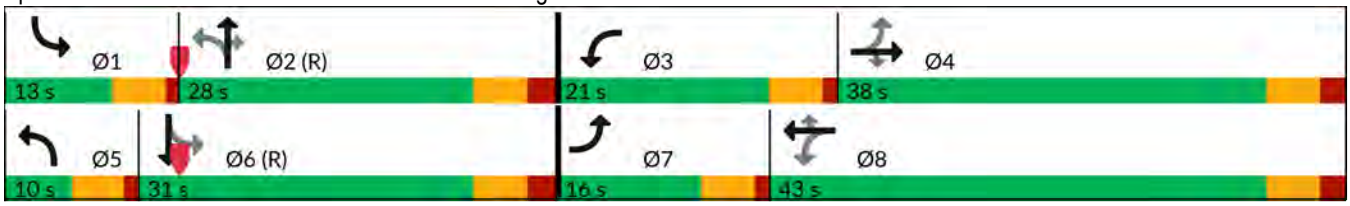
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		100	125		100	225		150	350		0
Storage Lanes	1		1	1		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850			0.850		0.923	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	3267	0
Flt Permitted	0.471			0.260			0.584			0.568		
Satd. Flow (perm)	877	3539	1583	484	3539	1583	1088	3539	1583	2053	3267	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			142			264			366		139	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		622			647			464			371	
Travel Time (s)		14.1			14.7			10.5			8.4	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	63	431	29	231	455	243	47	153	337	277	122
Future Volume (vph)	63	431	29	231	455	243	47	153	337	277	122
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	38.0	38.0	10.0	40.0	40.0	10.0	33.0	33.0	10.0	32.0
Total Split (s)	16.0	38.0	38.0	21.0	43.0	43.0	10.0	28.0	28.0	13.0	31.0
Total Split (%)	16.0%	38.0%	38.0%	21.0%	43.0%	43.0%	10.0%	28.0%	28.0%	13.0%	31.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	28.0	19.2	19.2	39.9	28.3	28.3	41.7	33.6	33.6	49.0	39.1
Actuated g/C Ratio	0.28	0.19	0.19	0.40	0.28	0.28	0.42	0.34	0.34	0.49	0.39
v/c Ratio	0.22	0.69	0.08	0.66	0.49	0.41	0.10	0.14	0.47	0.26	0.20
Control Delay (s/veh)	19.4	42.7	0.3	28.8	31.7	5.5	16.0	26.1	5.6	15.5	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.4	42.7	0.3	28.8	31.7	5.5	16.0	26.1	5.6	15.5	12.2
LOS	B	D	A	C	C	A	B	C	A	B	B
Approach Delay (s/veh)		37.5			24.1			12.3			13.9
Approach LOS		D			C			B			B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay (s/veh): 22.3	Intersection LOS: C
Intersection Capacity Utilization 55.2%	ICU Level of Service B
Analysis Period (min) 15	

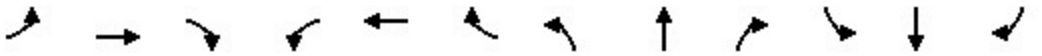
Splits and Phases: 1: Prairie Hawk Dr. & Wolfensberger Rd.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	68	468	32	251	495	264	51	166	366	301	272
v/c Ratio	0.22	0.69	0.08	0.66	0.49	0.41	0.10	0.14	0.47	0.26	0.20
Control Delay (s/veh)	19.4	42.7	0.3	28.8	31.7	5.5	16.0	26.1	5.6	15.5	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.4	42.7	0.3	28.8	31.7	5.5	16.0	26.1	5.6	15.5	12.2
Queue Length 50th (ft)	26	146	0	107	139	0	17	39	0	53	29
Queue Length 95th (ft)	48	187	0	151	181	56	41	73	74	88	66
Internal Link Dist (ft)		542			567			384			291
Turn Bay Length (ft)	325		100	125		100	225		150	350	
Base Capacity (vph)	372	1132	603	399	1309	752	502	1189	774	1152	1361
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.41	0.05	0.63	0.38	0.35	0.10	0.14	0.47	0.26	0.20

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	431	29	231	455	243	47	153	337	277	122	128
Future Volume (veh/h)	63	431	29	231	455	243	47	153	337	277	122	128
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	68	468	32	251	495	264	51	166	366	301	133	139
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	252	622	277	353	937	418	561	1427	636	1019	772	689
Arrive On Green	0.04	0.18	0.18	0.13	0.26	0.26	0.04	0.40	0.40	0.07	0.43	0.43
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	3456	1777	1585
Grp Volume(v), veh/h	68	468	32	251	495	264	51	166	366	301	133	139
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1728	1777	1585
Q Serve(g_s), s	3.1	12.5	1.7	11.0	11.9	14.7	1.7	2.9	18.0	5.0	4.6	5.4
Cycle Q Clear(g_c), s	3.1	12.5	1.7	11.0	11.9	14.7	1.7	2.9	18.0	5.0	4.6	5.4
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	252	622	277	353	937	418	561	1427	636	1019	772	689
V/C Ratio(X)	0.27	0.75	0.12	0.71	0.53	0.63	0.09	0.12	0.58	0.30	0.17	0.20
Avail Cap(c_a), veh/h	370	1137	507	402	1315	586	582	1427	636	1050	772	689
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.8	39.2	34.7	27.8	31.5	32.5	16.2	18.8	23.3	15.1	17.3	17.5
Incr Delay (d2), s/veh	0.6	1.9	0.2	5.0	0.5	1.6	0.1	0.2	3.8	0.2	0.5	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	5.6	0.7	5.1	5.1	5.7	0.7	1.2	7.2	1.9	1.9	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.3	41.1	34.9	32.8	32.0	34.1	16.3	19.0	27.0	15.3	17.8	18.2
LnGrp LOS	C	D	C	C	C	C	B	B	C	B	B	B
Approach Vol, veh/h		568			1010			583			573	
Approach Delay, s/veh		39.7			32.7			23.8			16.5	
Approach LOS		D			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	46.1	18.2	23.5	8.8	49.5	9.4	32.4
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	8.0	22.0	16.0	32.0	5.0	25.0	11.0	37.0
Max Q Clear Time (g_c+I1), s	7.0	20.0	13.0	14.5	3.7	7.4	5.1	16.7
Green Ext Time (p_c), s	0.1	0.5	0.2	3.0	0.0	1.5	0.1	4.2

Intersection Summary	
HCM 7th Control Delay, s/veh	28.9
HCM 7th LOS	C

Notes

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



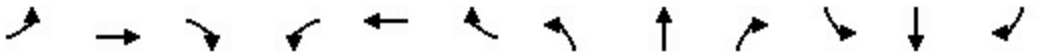
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						0.850
Flt Protected	0.952			0.999		
Satd. Flow (prot)	1773	0	0	1861	1863	1583
Flt Permitted	0.952			0.999		
Satd. Flow (perm)	1773	0	0	1861	1863	1583
Link Speed (mph)	30			30	30	
Link Distance (ft)	444			608	533	
Travel Time (s)	10.1			13.8	12.1	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	4.0
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	405	141	424
Demand Flow Rate, veh/h	413	144	433
Vehicles Circulating, veh/h	138	412	4
Vehicles Exiting, veh/h	4	139	552
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.4	5.6	1.1
Approach LOS	A	A	A

Lane	Left	Left	Left	Bypass
Designated Moves	LR	LT	T	R
Assumed Moves	LR	LT	T	
RT Channelized				Free
Lane Util	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	
A (Intercept)	1380	1380	1380	
B (Slope)	1.02e-3	1.02e-3	1.02e-3	
Entry Flow, veh/h	413	144	138	295
Cap Entry Lane, veh/h	1199	906	1374	1938
Entry HV Adj Factor	0.981	0.981	0.980	0.980
Flow Entry, veh/h	405	141	135	289
Cap Entry, veh/h	1175	889	1347	1900
V/C Ratio	0.345	0.159	0.100	0.152
Control Delay, s/veh	6.4	5.6	3.5	0.0
LOS	A	A	A	A
95th %tile Queue, veh	2	1	0	1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.865						0.881	
Flt Protected		0.953						0.994			0.997	
Satd. Flow (prot)	0	1773	0	0	1611	0	0	1852	0	0	1636	0
Flt Permitted		0.953						0.994			0.997	
Satd. Flow (perm)	0	1773	0	0	1611	0	0	1852	0	0	1636	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		608			909			1975			245	
Travel Time (s)		13.8			20.7			44.9			5.6	

Intersection Summary	
Area Type:	Other

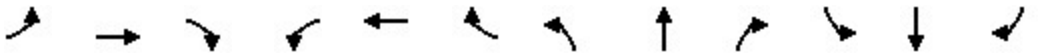
Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	96	0	1	0	0	18	1	7	0	7	9	122
Future Vol, veh/h	96	0	1	0	0	18	1	7	0	7	9	122
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	104	0	1	0	0	20	1	8	0	8	10	133

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	20	0	0	1	0	0	214	229	1	222	220	10
Stage 1	-	-	-	-	-	-	209	209	-	10	10	-
Stage 2	-	-	-	-	-	-	5	20	-	213	210	-
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	1597	-	-	1622	-	-	743	671	1084	733	679	1072
Stage 1	-	-	-	-	-	-	793	729	-	1011	887	-
Stage 2	-	-	-	-	-	-	1017	879	-	790	729	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1597	-	-	1622	-	-	599	627	1084	678	634	1072
Mov Cap-2 Maneuver	-	-	-	-	-	-	599	627	-	678	634	-
Stage 1	-	-	-	-	-	-	741	681	-	1011	887	-
Stage 2	-	-	-	-	-	-	882	879	-	730	681	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	7.34	0	10.86	9.25
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	623	1485	-	-	1622	-	-	997
HCM Lane V/C Ratio	0.014	0.065	-	-	-	-	-	0.15
HCM Control Delay (s/veh)	10.9	7.4	0	-	0	-	-	9.2
HCM Lane LOS	B	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-	-	0.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	150		0	0		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.973						0.990	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	1863	0	1770	1812	0	1863	1863	0	1770	1844	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	1863	0	1770	1812	0	1863	1863	0	1770	1844	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		340			1975			760			832	
Travel Time (s)		7.7			44.9			17.3			18.9	

Intersection Summary	
Area Type:	Other

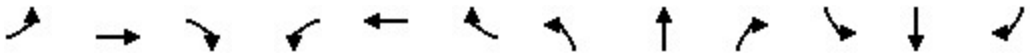
Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	38	0	69	21	5	0	202	0	4	134	9
Future Vol, veh/h	11	38	0	69	21	5	0	202	0	4	134	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	0	-	-	150	-	-
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	12	41	0	75	23	5	0	220	0	4	146	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	390	379	151	395	384	220	155	0	0	220	0	0
Stage 1	159	159	-	220	220	-	-	-	-	-	-	-
Stage 2	231	220	-	175	164	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	569	553	896	565	550	820	1425	-	-	1350	-	-
Stage 1	843	766	-	783	721	-	-	-	-	-	-	-
Stage 2	772	721	-	827	762	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	540	551	896	521	548	820	1425	-	-	1350	-	-
Mov Cap-2 Maneuver	540	551	-	521	548	-	-	-	-	-	-	-
Stage 1	840	764	-	783	721	-	-	-	-	-	-	-
Stage 2	743	721	-	780	760	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	12	12.63	0	0.21
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1425	-	-	540	551	521	585	1350	-	-
HCM Lane V/C Ratio	-	-	-	0.022	0.075	0.144	0.048	0.003	-	-
HCM Control Delay (s/veh)	0	-	-	11.8	12.1	13.1	11.5	7.7	-	-
HCM Lane LOS	A	-	-	B	B	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0.5	0.2	0	-	-



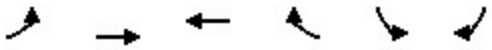
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	250		0	125		0	175		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.979			0.960			0.976			0.982	
Flt Protected		0.998			0.995			0.993			0.987	
Satd. Flow (prot)	0	3458	0	0	3381	0	0	3430	0	0	3430	0
Flt Permitted		0.998			0.995			0.993			0.987	
Satd. Flow (perm)	0	3458	0	0	3381	0	0	3430	0	0	3430	0
Link Speed (mph)		40			35			45			45	
Link Distance (ft)		631			610			567			842	
Travel Time (s)		10.8			11.9			8.6			12.8	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	6.8
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	472	631	413	417
Demand Flow Rate, veh/h	481	643	421	425
Vehicles Circulating, veh/h	443	373	529	531
Vehicles Exiting, veh/h	513	577	395	485
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.5	7.0	6.8	6.8
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	0.470	0.530	0.471	0.529
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	226	255	302	341	198	223	200	225
Cap Entry Lane, veh/h	898	974	958	1034	830	906	828	904
Entry HV Adj Factor	0.982	0.982	0.982	0.981	0.981	0.982	0.980	0.982
Flow Entry, veh/h	222	250	297	334	194	219	196	221
Cap Entry, veh/h	882	956	941	1014	814	889	811	888
V/C Ratio	0.252	0.262	0.315	0.330	0.239	0.246	0.241	0.249
Control Delay, s/veh	6.7	6.4	7.2	6.9	7.0	6.6	7.1	6.6
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	1	1	1	1	1	1	1	1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	150			150	0	0
Storage Lanes	1			1	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.995	
Flt Protected	0.950				0.954	
Satd. Flow (prot)	1770	3539	3539	1583	1768	0
Flt Permitted	0.950				0.954	
Satd. Flow (perm)	1770	3539	3539	1583	1768	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		350	935		1177	
Travel Time (s)		8.0	21.3		26.8	

Intersection Summary	
Area Type:	Other

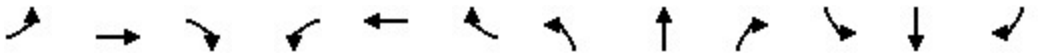
Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	585	612	131	114	5
Future Vol, veh/h	8	585	612	131	114	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	636	665	142	124	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	808	0	-	0	1001	333
Stage 1	-	-	-	-	665	-
Stage 2	-	-	-	-	335	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	813	-	-	-	240	663
Stage 1	-	-	-	-	473	-
Stage 2	-	-	-	-	696	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	813	-	-	-	237	663
Mov Cap-2 Maneuver	-	-	-	-	237	-
Stage 1	-	-	-	-	468	-
Stage 2	-	-	-	-	696	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.13	0	35.37
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	813	-	-	-	244
HCM Lane V/C Ratio	0.011	-	-	-	0.531
HCM Control Delay (s/veh)	9.5	-	-	-	35.4
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	2.8



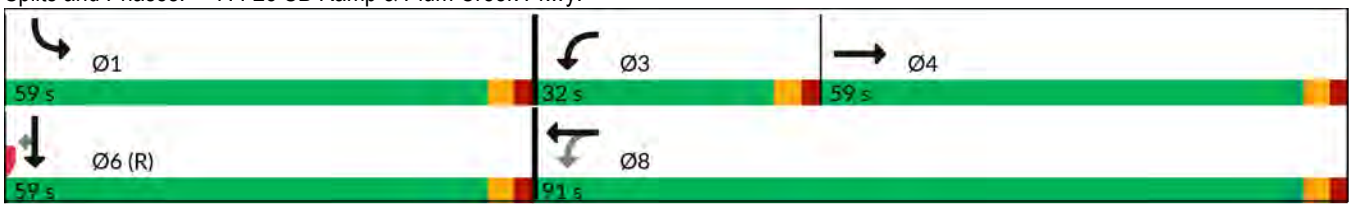
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		0	0		0	375		175	0		175
Storage Lanes	1		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt			0.850									0.850
Flt Protected				0.950						0.950	0.953	
Satd. Flow (prot)	0	5085	1583	1770	3539	0	0	0	0	3221	1615	1583
Flt Permitted				0.073						0.950	0.953	
Satd. Flow (perm)	0	5085	1583	136	3539	0	0	0	0	3221	1615	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			187									125
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		819			253			493			625	
Travel Time (s)		18.6			5.8			11.2			14.2	

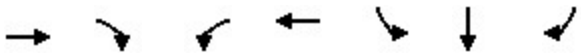
Intersection Summary	
Area Type:	Other

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	1221	317	334	867	1181	5	385
Future Volume (vph)	1221	317	334	867	1181	5	385
Turn Type	NA	Free	pm+pt	NA	Prot	NA	Perm
Protected Phases	4		3	8	1	6	
Permitted Phases		Free	8				6
Detector Phase	4		3	8	1	6	6
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5		10.0	22.5	10.0	22.5	22.5
Total Split (s)	59.0		32.0	91.0	59.0	59.0	59.0
Total Split (%)	39.3%		21.3%	60.7%	39.3%	39.3%	39.3%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0		5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag		Lead				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	None		None	None	None	C-Max	C-Max
Act Effct Green (s)	49.7	150.0	81.7	81.7	58.3	58.3	58.3
Actuated g/C Ratio	0.33	1.00	0.54	0.54	0.39	0.39	0.39
v/c Ratio	0.79	0.22	0.99	0.49	0.69	0.68	0.60
Control Delay (s/veh)	48.9	0.3	72.5	19.0	42.5	46.0	30.1
Queue Delay	2.1	0.0	40.5	16.6	41.2	44.8	0.0
Total Delay (s/veh)	51.1	0.3	113.0	35.6	83.7	90.8	30.1
LOS	D	A	F	D	F	F	C
Approach Delay (s/veh)	40.6			57.1		72.3	
Approach LOS	D			E		E	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 0 (0%), Referenced to phase 2: and 6:SBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay (s/veh): 56.8	Intersection LOS: E
Intersection Capacity Utilization 121.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 7: I-25 SB Ramp & Plum Creek Pkwy.

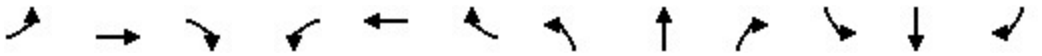




Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1327	345	363	942	860	429	418
v/c Ratio	0.79	0.22	0.99	0.49	0.69	0.68	0.60
Control Delay (s/veh)	48.9	0.3	72.5	19.0	42.5	46.0	30.1
Queue Delay	2.1	0.0	40.5	16.6	41.2	44.8	0.0
Total Delay (s/veh)	51.1	0.3	113.0	35.6	83.7	90.8	30.1
Queue Length 50th (ft)	425	0	293	190	389	387	233
Queue Length 95th (ft)	468	0	m289	m174	487	551	366
Internal Link Dist (ft)	739			173		545	
Turn Bay Length (ft)							175
Base Capacity (vph)	1830	1583	368	2029	1251	627	691
Starvation Cap Reductn	0	0	135	1090	0	0	0
Spillback Cap Reductn	347	0	0	0	452	227	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.22	1.56	1.00	1.08	1.07	0.60

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)	0	1221	317	334	867	0	0	0	0	1181	5	385
Future Volume (veh/h)	0	1221	317	334	867	0	0	0	0	1181	5	385
Initial Q (Qb), veh	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
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1327	0	363	942	0				1288	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1592		382	1835	0				2228	0	
Arrive On Green	0.00	0.31	0.00	0.23	0.69	0.00				0.42	0.00	0.00
Sat Flow, veh/h	0	5274	1585	1781	3647	0				5344	0	1585
Grp Volume(v), veh/h	0	1327	0	363	942	0				1288	0	0
Grp Sat Flow(s),veh/h/ln	0	1702	1585	1781	1777	0				1781	0	1585
Q Serve(g_s), s	0.0	36.2	0.0	23.5	19.2	0.0				27.8	0.0	0.0
Cycle Q Clear(g_c), s	0.0	36.2	0.0	23.5	19.2	0.0				27.8	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1592		382	1835	0				2228	0	
V/C Ratio(X)	0.00	0.83		0.95	0.51	0.00				0.58	0.00	
Avail Cap(c_a), veh/h	0	1838		398	2037	0				2228	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.09	0.09	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	48.0	0.0	38.1	14.4	0.0				33.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	3.1	0.0	5.6	0.0	0.0				0.4	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	15.9	0.0	13.5	6.7	0.0				12.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	51.1	0.0	43.7	14.4	0.0				34.0	0.0	0.0
LnGrp LOS		D		D	B					C		
Approach Vol, veh/h		1327			1305						1288	
Approach Delay, s/veh		51.1			22.5						34.0	
Approach LOS		D			C						C	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		30.7	51.8		67.5		82.5					
Change Period (Y+Rc), s		5.0	5.0		5.0		5.0					
Max Green Setting (Gmax), s		27.0	54.0		54.0		86.0					
Max Q Clear Time (g_c+I1), s		25.5	38.2		29.8		21.2					
Green Ext Time (p_c), s		0.2	8.5		5.8		8.8					

Intersection Summary	
HCM 7th Control Delay, s/veh	36.0
HCM 7th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

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

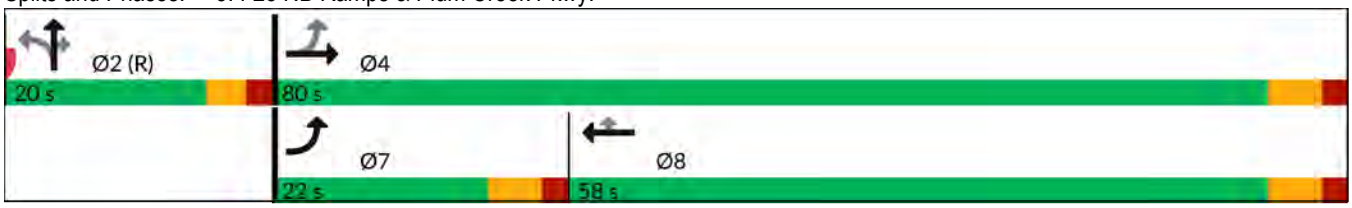
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		150	0		0
Storage Lanes	2		0	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	0.91	0.95	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.939	0.850		0.986	0.850			
Flt Protected	0.950						0.950	0.958				
Satd. Flow (prot)	3433	5085	0	0	3183	1441	1681	1601	1504	0	0	0
Flt Permitted	0.068						0.950	0.958				
Satd. Flow (perm)	246	5085	0	0	3183	1441	1681	1601	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					217	526		4	98			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		592			541			529			558	
Travel Time (s)		13.5			12.3			12.0			12.7	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	492	1870	918	1350	295	4	149
Future Volume (vph)	492	1870	918	1350	295	4	149
Turn Type	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	8			2	
Permitted Phases	4			8	2		2
Detector Phase	7	4	8	8	2	2	2
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.0	80.0	58.0	58.0	20.0	20.0	20.0
Total Split (%)	22.0%	80.0%	58.0%	58.0%	20.0%	20.0%	20.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	74.0	74.0	52.4	52.4	15.0	15.0	15.0
Actuated g/C Ratio	0.74	0.74	0.52	0.52	0.15	0.15	0.15
v/c Ratio	0.79	0.54	0.95	0.77	0.67	0.70	0.47
Control Delay (s/veh)	33.3	6.3	33.4	12.0	54.7	56.3	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	33.3	6.3	33.4	12.0	54.7	56.3	20.4
LOS	C	A	C	B	D	E	C
Approach Delay (s/veh)		11.9	26.6			45.0	
Approach LOS		B	C			D	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay (s/veh): 21.4	Intersection LOS: C
Intersection Capacity Utilization 93.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 8: I-25 NB Ramps & Plum Creek Pkwy.





Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	535	2033	1687	778	170	171	146
v/c Ratio	0.79	0.54	0.95	0.77	0.67	0.70	0.47
Control Delay (s/veh)	33.3	6.3	33.4	12.0	54.7	56.3	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	33.3	6.3	33.4	12.0	54.7	56.3	20.4
Queue Length 50th (ft)	116	172	491	124	109	112	28
Queue Length 95th (ft)	176	202	#697	325	#201	#215	91
Internal Link Dist (ft)		512	461			449	
Turn Bay Length (ft)							150
Base Capacity (vph)	691	3762	1771	1005	252	243	308
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.54	0.95	0.77	0.67	0.70	0.47

Intersection Summary

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

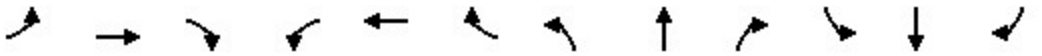
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	492	1870	0	0	918	1350	295	4	149	0	0	0
Future Volume (veh/h)	492	1870	0	0	918	1350	295	4	149	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	535	2033	0	0	998	1467	373	0	109			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	613	3655	0	0	973	1648	621	0	276			
Arrive On Green	0.14	0.72	0.00	0.00	0.52	0.52	0.17	0.00	0.17			
Sat Flow, veh/h	3456	5274	0	0	1870	3170	3563	0	1585			
Grp Volume(v), veh/h	535	2033	0	0	998	1467	373	0	109			
Grp Sat Flow(s),veh/h/ln	1728	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	10.9	18.8	0.0	0.0	52.0	41.3	9.7	0.0	6.1			
Cycle Q Clear(g_c), s	10.9	18.8	0.0	0.0	52.0	41.3	9.7	0.0	6.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	613	3655	0	0	973	1648	621	0	276			
V/C Ratio(X)	0.87	0.56	0.00	0.00	1.03	0.89	0.60	0.00	0.39			
Avail Cap(c_a), veh/h	697	3779	0	0	973	1648	621	0	276			
HCM Platoon Ratio	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	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	31.9	6.7	0.0	0.0	24.0	21.4	38.1	0.0	36.6			
Incr Delay (d2), s/veh	10.7	0.2	0.0	0.0	35.7	6.5	4.3	0.0	4.2			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.2	5.7	0.0	0.0	30.8	15.7	4.5	0.0	2.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.6	6.9	0.0	0.0	59.7	27.9	42.4	0.0	40.8			
LnGrp LOS	D	A			F	C	D		D			
Approach Vol, veh/h		2568			2465			482				
Approach Delay, s/veh		14.3			40.8			42.0				
Approach LOS		B			D			D				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		22.4		77.6			19.6	58.0				
Change Period (Y+Rc), s		5.0		6.0			6.0	6.0				
Max Green Setting (Gmax), s		15.0		74.0			16.0	52.0				
Max Q Clear Time (g_c+I1), s		11.7		20.8			12.9	54.0				
Green Ext Time (p_c), s		0.6		28.6			0.7	0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	28.6
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		0	225		0	225		250	175		200
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.985				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	5009	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.085			0.093			0.462			0.637		
Satd. Flow (perm)	158	3539	1583	173	5009	0	1670	1863	1583	1187	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			227		18				100			100
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		709			907			521			491	
Travel Time (s)		16.1			20.6			11.8			11.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	343	1549	169	83	1221	665	176	74	221	132	328
Future Volume (vph)	343	1549	169	83	1221	665	176	74	221	132	328
Turn Type	pm+pt	NA	Free	pm+pt	NA	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	7	4		3	8	5	2	3	1	6	7
Permitted Phases	4		Free	8		2		2	6		6
Detector Phase	7	4		3	8	5	2	3	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	31.0		9.5	31.0	9.5	36.0	9.5	9.5	34.0	9.5
Total Split (s)	24.0	63.1		9.7	48.8	23.0	36.2	9.7	11.0	24.2	24.0
Total Split (%)	20.0%	52.6%		8.1%	40.7%	19.2%	30.2%	8.1%	9.2%	20.2%	20.0%
Yellow Time (s)	3.0	4.0		3.0	4.0	3.0	4.0	3.0	3.0	4.0	3.0
All-Red Time (s)	1.0	2.0		1.0	2.0	1.0	2.0	1.0	1.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	68.8	57.1	120.0	50.5	42.8	43.2	30.2	41.9	27.2	18.2	44.2
Actuated g/C Ratio	0.57	0.48	1.00	0.42	0.36	0.36	0.25	0.35	0.23	0.15	0.37
v/c Ratio	1.04	1.00	0.12	0.61	0.82	0.82	0.41	0.13	0.79	0.51	0.55
Control Delay (s/veh)	92.6	53.8	0.1	35.8	39.4	40.6	40.6	3.6	55.7	53.8	24.9
Queue Delay	0.0	18.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	92.6	72.6	0.1	35.8	39.4	40.6	40.6	3.6	55.7	53.8	24.9
LOS	F	E	A	D	D	D	D	A	E	D	C
Approach Delay (s/veh)		70.0			39.2		37.6			40.5	
Approach LOS		E			D		D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay (s/veh): 51.5	Intersection LOS: D
Intersection Capacity Utilization 90.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 9: Wilcox St. & Plum Creek Pkwy.



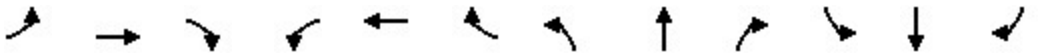


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	373	1684	184	90	1478	723	191	80	240	143	357
v/c Ratio	1.04	1.00	0.12	0.61	0.82	0.82	0.41	0.13	0.79	0.51	0.55
Control Delay (s/veh)	92.6	53.8	0.1	35.8	39.4	40.6	40.6	3.6	55.7	53.8	24.9
Queue Delay	0.0	18.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	92.6	72.6	0.1	35.8	39.4	40.6	40.6	3.6	55.7	53.8	24.9
Queue Length 50th (ft)	~259	~668	0	30	374	232	124	0	137	103	155
Queue Length 95th (ft)	#454	#854	0	#80	437	294	195	23	#246	171	253
Internal Link Dist (ft)		629			827		441			411	
Turn Bay Length (ft)	325			225		225		250	175		200
Base Capacity (vph)	359	1683	1583	148	1798	880	468	617	303	282	646
Starvation Cap Reductn	0	90	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.04	1.06	0.12	0.61	0.82	0.82	0.41	0.13	0.79	0.51	0.55

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)	343	1549	169	83	1221	139	665	176	74	221	132	328
Future Volume (veh/h)	343	1549	169	83	1221	139	665	176	74	221	132	328
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	373	1684	0	90	1327	151	723	191	80	240	143	357
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	392	1691		143	1652	188	812	473	474	334	286	507
Arrive On Green	0.17	0.48	0.00	0.05	0.36	0.36	0.16	0.25	0.25	0.06	0.15	0.15
Sat Flow, veh/h	1781	3554	1585	1781	4650	529	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	373	1684	0	90	971	507	723	191	80	240	143	357
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1775	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	18.4	56.7	0.0	3.8	30.9	30.9	19.0	10.2	4.5	7.0	8.4	18.4
Cycle Q Clear(g_c), s	18.4	56.7	0.0	3.8	30.9	30.9	19.0	10.2	4.5	7.0	8.4	18.4
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	392	1691		143	1209	631	812	473	474	334	286	507
V/C Ratio(X)	0.95	1.00		0.63	0.80	0.80	0.89	0.40	0.17	0.72	0.50	0.70
Avail Cap(c_a), veh/h	392	1691		146	1214	633	812	473	474	334	286	507
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)	0.29	0.29	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.3	31.3	0.0	30.2	34.9	34.9	36.4	37.3	31.0	44.4	46.6	35.8
Incr Delay (d2), s/veh	14.6	10.8	0.0	8.1	4.0	7.4	12.0	2.5	0.8	7.3	6.1	8.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.5	25.9	0.0	1.9	13.3	14.5	10.3	5.0	1.8	4.0	4.4	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.9	42.2	0.0	38.3	38.9	42.3	48.4	39.8	31.8	51.7	52.7	43.8
LnGrp LOS	D	D		D	D	D	D	D	C	D	D	D
Approach Vol, veh/h		2057			1568			994			740	
Approach Delay, s/veh		43.0			40.0			45.4			48.1	
Approach LOS		D			D			D			D	

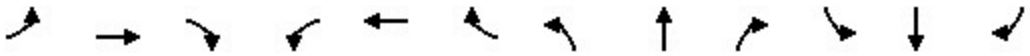
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	36.4	9.5	63.1	23.0	24.4	24.0	48.6
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	7.0	30.2	5.7	57.1	19.0	18.2	20.0	42.8
Max Q Clear Time (g_c+I1), s	9.0	12.2	5.8	58.7	21.0	20.4	20.4	32.9
Green Ext Time (p_c), s	0.0	1.2	0.0	0.0	0.0	0.0	0.0	6.5

Intersection Summary	
HCM 7th Control Delay, s/veh	43.3
HCM 7th LOS	D

Notes

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

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



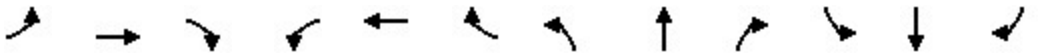
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.951									0.939	
Flt Protected		0.969						0.986				
Satd. Flow (prot)	0	1717	0	0	1863	0	0	3490	0	0	3323	0
Flt Permitted		0.969						0.986				
Satd. Flow (perm)	0	1717	0	0	1863	0	0	3490	0	0	3323	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		632			891			763			760	
Travel Time (s)		14.4			20.3			17.3			17.3	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	3.7
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	134	0	260	220
Demand Flow Rate, veh/h	137	0	266	225
Vehicles Circulating, veh/h	133	353	87	78
Vehicles Exiting, veh/h	170	0	183	275
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.8	0.0	3.7	3.5
Approach LOS	A	-	A	A

Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.471	0.529
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1420	1420	1350	1420	1350	1420
B (Slope)	8.501e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	137	0	125	141	106	119
Cap Entry Lane, veh/h	1268	1052	1246	1319	1256	1329
Entry HV Adj Factor	0.978	1.000	0.979	0.978	0.977	0.982
Flow Entry, veh/h	134	0	122	138	104	117
Cap Entry, veh/h	1241	1052	1220	1290	1228	1305
V/C Ratio	0.108	0.000	0.100	0.107	0.084	0.090
Control Delay, s/veh	3.8	3.4	3.8	3.7	3.6	3.5
LOS	A	A	A	A	A	A
95th %tile Queue, veh	0	0	0	0	0	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	250		250	250		0	250		150	250		150
Storage Lanes	1		1	2		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	3433	3539	1583	1770	3539	1583	3433	3539	1583
Flt Permitted	0.261			0.143			0.692			0.558		
Satd. Flow (perm)	486	3539	1583	517	3539	1583	1289	3539	1583	2016	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			182			329			356			127
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		881			659			431			594	
Travel Time (s)		20.0			15.0			9.8			13.5	

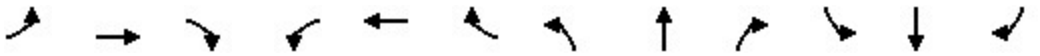
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	728	89	312	637	303	82	70	437	373	88	114
Future Volume (vph)	93	728	89	312	637	303	82	70	437	373	88	114
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		Free	2		Free	6		6
Detector Phase	7	4	4	3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	16.0	29.5	29.5	15.5	29.0		17.0	22.5		22.5	28.0	28.0
Total Split (%)	17.8%	32.8%	32.8%	17.2%	32.2%		18.9%	25.0%		25.0%	31.1%	31.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		Max	C-Max		Max	Max	Max
Act Effct Green (s)	32.5	24.0	24.0	36.5	28.0	90.0	32.1	18.0	90.0	42.1	23.5	23.5
Actuated g/C Ratio	0.36	0.27	0.27	0.41	0.31	1.00	0.36	0.20	1.00	0.47	0.26	0.26
v/c Ratio	0.34	0.84	0.17	0.62	0.63	0.21	0.17	0.11	0.30	0.32	0.10	0.24
Control Delay (s/veh)	18.3	40.2	0.7	22.2	30.3	0.3	15.7	30.0	0.5	15.7	25.7	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	18.3	40.2	0.7	22.2	30.3	0.3	15.7	30.0	0.5	15.7	25.7	6.2
LOS	B	D	A	C	C	A	B	C	A	B	C	A
Approach Delay (s/veh)		34.1			21.0			6.1			15.3	
Approach LOS		C			C			A			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay (s/veh): 21.0	Intersection LOS: C
Intersection Capacity Utilization 57.6%	ICU Level of Service B
Analysis Period (min) 15	

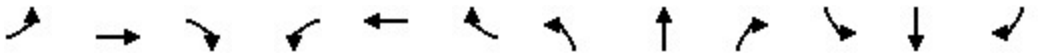
Splits and Phases: 11: Plum Creek Pkwy. & Prairie Hawk Dr.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	101	791	97	339	692	329	89	76	475	405	96	124
v/c Ratio	0.34	0.84	0.17	0.62	0.63	0.21	0.17	0.11	0.30	0.32	0.10	0.24
Control Delay (s/veh)	18.3	40.2	0.7	22.2	30.3	0.3	15.7	30.0	0.5	15.7	25.7	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	18.3	40.2	0.7	22.2	30.3	0.3	15.7	30.0	0.5	15.7	25.7	6.2
Queue Length 50th (ft)	32	219	0	58	177	0	28	18	0	71	21	0
Queue Length 95th (ft)	62	290	0	91	248	0	56	37	0	103	41	40
Internal Link Dist (ft)		801			579			351			514	
Turn Bay Length (ft)	250		250	250			250		150	250		150
Base Capacity (vph)	355	984	571	567	1099	1583	535	707	1583	1253	924	507
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	0.28	0.80	0.17	0.60	0.63	0.21	0.17	0.11	0.30	0.32	0.10	0.24

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	728	89	312	637	303	82	70	437	373	88	114
Future Volume (veh/h)	93	728	89	312	637	303	82	70	437	373	88	114
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	101	791	97	339	692	0	89	76	0	405	96	124
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	278	913	407	544	1042		615	879		1444	1096	489
Arrive On Green	0.06	0.26	0.26	0.10	0.29	0.00	0.14	0.25	0.00	0.20	0.31	0.31
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	101	791	97	339	692	0	89	76	0	405	96	124
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1777	1585	1728	1777	1585
Q Serve(g_s), s	3.7	19.1	4.4	6.3	15.4	0.0	2.9	1.5	0.0	6.3	1.7	5.3
Cycle Q Clear(g_c), s	3.7	19.1	4.4	6.3	15.4	0.0	2.9	1.5	0.0	6.3	1.7	5.3
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	278	913	407	544	1042		615	879		1444	1096	489
V/C Ratio(X)	0.36	0.87	0.24	0.62	0.66		0.14	0.09		0.28	0.09	0.25
Avail Cap(c_a), veh/h	400	987	440	636	1042		615	879		1444	1096	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	32.0	26.5	23.2	27.9	0.0	17.8	26.0	0.0	14.4	22.1	23.3
Incr Delay (d2), s/veh	0.8	7.8	0.3	1.5	1.6	0.0	0.5	0.2	0.0	0.5	0.2	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	9.0	1.7	2.6	6.6	0.0	1.2	0.6	0.0	2.5	0.7	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.0	39.7	26.8	24.7	29.5	0.0	18.3	26.2	0.0	14.9	22.3	24.6
LnGrp LOS	C	D	C	C	C		B	C		B	C	C
Approach Vol, veh/h		989			1031			165			625	
Approach Delay, s/veh		36.8			27.9			22.0			18.0	
Approach LOS		D			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.5	26.8	13.1	27.6	17.0	32.3	9.8	30.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	11.0	25.0	12.5	23.5	11.5	24.5
Max Q Clear Time (g_c+I1), s	8.3	3.5	8.3	21.1	4.9	7.3	5.7	17.4
Green Ext Time (p_c), s	1.1	0.3	0.3	2.0	0.1	0.8	0.1	2.7

Intersection Summary	
HCM 7th Control Delay, s/veh	28.5
HCM 7th LOS	C

Notes

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

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



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	150	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Ped Bike Factor						
Frt		0.865		0.850		
Flt Protected					0.950	
Satd. Flow (prot)	0	1611	3539	1583	1770	3539
Flt Permitted					0.950	
Satd. Flow (perm)	0	1611	3539	1583	1770	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	1217		594			763
Travel Time (s)	27.7		13.5			17.3

Intersection Summary	
Area Type:	Other

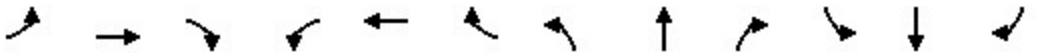
Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	88	397	69	69	574
Future Vol, veh/h	0	88	397	69	69	574
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	Free	-	None
Storage Length	-	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	96	432	75	75	624

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	216	0	-	432	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	789	-	0	1124	-
Stage 1	0	-	-	0	-	-
Stage 2	0	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	789	-	-	1124	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	10.19	0	0.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	WBLn1	SBL	SBT
Capacity (veh/h)	-	789	1124	-
HCM Lane V/C Ratio	-	0.121	0.067	-
HCM Control Delay (s/veh)	-	10.2	8.4	-
HCM Lane LOS	-	B	A	-
HCM 95th %tile Q(veh)	-	0.4	0.2	-



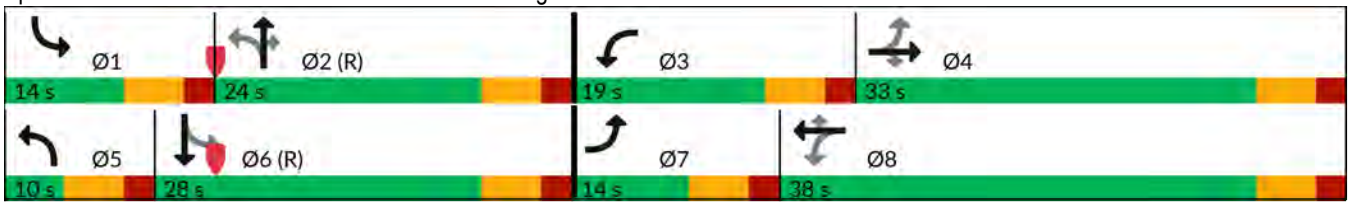
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		150	125		100	225		150	350		0
Storage Lanes	1		1	1		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850			0.850		0.973	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	3444	0
Flt Permitted	0.585			0.228			0.568			0.505		
Satd. Flow (perm)	1090	3539	1583	425	3539	1583	1058	3539	1583	1825	3444	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			182			228			306		27	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		574			591			422			635	
Travel Time (s)		13.0			13.4			9.6			14.4	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	106	517	64	298	248	210	22	158	292	270	228
Future Volume (vph)	106	517	64	298	248	210	22	158	292	270	228
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0
Minimum Split (s)	11.0	33.0	33.0	11.0	37.0	37.0	10.0	29.0	29.0	10.0	29.0
Total Split (s)	14.0	33.0	33.0	19.0	38.0	38.0	10.0	24.0	24.0	14.0	28.0
Total Split (%)	15.6%	36.7%	36.7%	21.1%	42.2%	42.2%	11.1%	26.7%	26.7%	15.6%	31.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	28.3	20.6	20.6	38.7	28.3	28.3	28.8	23.1	23.1	37.9	33.8
Actuated g/C Ratio	0.31	0.23	0.23	0.43	0.31	0.31	0.32	0.26	0.26	0.42	0.38
v/c Ratio	0.29	0.69	0.14	0.86	0.24	0.35	0.06	0.19	0.50	0.31	0.23
Control Delay (s/veh)	16.8	36.1	0.6	40.8	23.6	4.7	18.2	28.6	7.5	18.2	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.8	36.1	0.6	40.8	23.6	4.7	18.2	28.6	7.5	18.2	20.6
LOS	B	D	A	D	C	A	B	C	A	B	C
Approach Delay (s/veh)		29.8			25.2			15.1			19.4
Approach LOS		C			C			B			B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay (s/veh): 23.2	Intersection LOS: C
Intersection Capacity Utilization 62.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Prairie Hawk Dr. & Wolfensberger Rd.

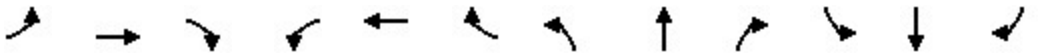




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	115	562	70	324	270	228	24	172	317	293	302
v/c Ratio	0.29	0.69	0.14	0.86	0.24	0.35	0.06	0.19	0.50	0.31	0.23
Control Delay (s/veh)	16.8	36.1	0.6	40.8	23.6	4.7	18.2	28.6	7.5	18.2	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.8	36.1	0.6	40.8	23.6	4.7	18.2	28.6	7.5	18.2	20.6
Queue Length 50th (ft)	38	155	0	123	62	0	8	40	5	52	49
Queue Length 95th (ft)	62	193	0	#217	86	47	25	72	76	89	105
Internal Link Dist (ft)		494			511			342			555
Turn Bay Length (ft)	325		150	125		100	225		150	350	
Base Capacity (vph)	407	1061	602	377	1268	713	383	906	633	937	1311
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.53	0.12	0.86	0.21	0.32	0.06	0.19	0.50	0.31	0.23

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)	106	517	64	298	248	210	22	158	292	270	228	50
Future Volume (veh/h)	106	517	64	298	248	210	22	158	292	270	228	50
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	115	562	70	324	270	228	24	172	317	293	248	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	387	732	326	382	1002	447	441	1079	481	906	1057	226
Arrive On Green	0.07	0.21	0.21	0.14	0.28	0.28	0.02	0.30	0.30	0.08	0.36	0.36
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	3456	2912	623
Grp Volume(v), veh/h	115	562	70	324	270	228	24	172	317	293	150	152
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1728	1777	1758
Q Serve(g_s), s	4.5	13.4	3.3	12.6	5.3	10.9	0.8	3.2	15.7	5.0	5.3	5.4
Cycle Q Clear(g_c), s	4.5	13.4	3.3	12.6	5.3	10.9	0.8	3.2	15.7	5.0	5.3	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	387	732	326	382	1002	447	441	1079	481	906	645	638
V/C Ratio(X)	0.30	0.77	0.21	0.85	0.27	0.51	0.05	0.16	0.66	0.32	0.23	0.24
Avail Cap(c_a), veh/h	424	1066	476	382	1264	564	485	1079	481	939	645	638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.3	33.7	29.7	23.6	25.1	27.1	20.9	22.9	27.3	18.0	19.9	20.0
Incr Delay (d2), s/veh	0.4	2.1	0.3	16.1	0.1	0.9	0.1	0.3	6.9	0.2	0.8	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	5.9	1.3	6.8	2.2	4.1	0.3	1.4	6.7	2.0	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.7	35.8	30.0	39.7	25.3	28.0	20.9	23.2	34.2	18.2	20.8	20.9
LnGrp LOS	C	D	C	D	C	C	C	C	C	B	C	C
Approach Vol, veh/h		747			822			513			595	
Approach Delay, s/veh		33.7			31.7			29.9			19.5	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.1	33.3	19.0	24.5	7.8	38.7	12.2	31.4
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	18.0	13.0	27.0	4.0	22.0	8.0	32.0
Max Q Clear Time (g_c+I1), s	7.0	17.7	14.6	15.4	2.8	7.4	6.5	12.9
Green Ext Time (p_c), s	0.1	0.1	0.0	3.1	0.0	1.5	0.0	2.4

Intersection Summary	
HCM 7th Control Delay, s/veh	29.2
HCM 7th LOS	C

Notes

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



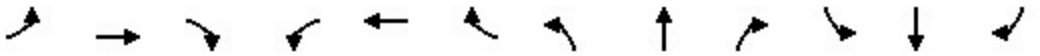
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						0.850
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1863	1863	1583
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1863	1863	1583
Link Speed (mph)	30			30	30	
Link Distance (ft)	412			603	542	
Travel Time (s)	9.4			13.7	12.3	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	4.2
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	342	155	622
Demand Flow Rate, veh/h	349	158	634
Vehicles Circulating, veh/h	306	349	1
Vehicles Exiting, veh/h	1	306	506
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	7.3	5.4	2.2
Approach LOS	A	A	A

Lane	Left	Left	Left	Bypass
Designated Moves	LR	LT	T	R
Assumed Moves	LR	LT	T	
RT Channelized				Free
Lane Util	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	
A (Intercept)	1380	1380	1380	
B (Slope)	1.02e-3	1.02e-3	1.02e-3	
Entry Flow, veh/h	349	158	306	328
Cap Entry Lane, veh/h	1010	967	1378	1938
Entry HV Adj Factor	0.980	0.981	0.980	0.980
Flow Entry, veh/h	342	155	300	322
Cap Entry, veh/h	990	948	1351	1900
V/C Ratio	0.346	0.163	0.222	0.169
Control Delay, s/veh	7.3	5.4	4.5	0.0
LOS	A	A	A	A
95th %tile Queue, veh	2	1	1	1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.850			0.850						0.934	
Flt Protected	0.950							0.998			0.998	
Satd. Flow (prot)	1770	1583	0	1863	1583	0	0	1859	0	0	1736	0
Flt Permitted	0.950							0.998			0.998	
Satd. Flow (perm)	1770	1583	0	1863	1583	0	0	1859	0	0	1736	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		603			706			1975			245	
Travel Time (s)		13.7			20.7			44.9			5.6	

Intersection Summary	
Area Type:	Other

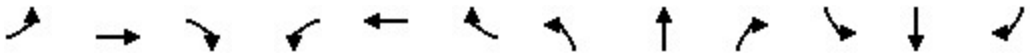
Intersection	
Int Delay, s/veh	10.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	0	1	0	0	11	3	83	0	11	122	129
Future Vol, veh/h	51	0	1	0	0	11	3	83	0	11	122	129
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	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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	55	0	1	0	0	12	3	90	0	12	133	140

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	12	0	0	1	0	0	178	123	1	162	118	6
Stage 1	-	-	-	-	-	-	111	111	-	6	6	-
Stage 2	-	-	-	-	-	-	66	12	-	156	112	-
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	1607	-	-	1622	-	-	784	767	1084	803	772	1077
Stage 1	-	-	-	-	-	-	894	803	-	1016	891	-
Stage 2	-	-	-	-	-	-	944	886	-	846	803	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1607	-	-	1622	-	-	545	741	1084	684	746	1077
Mov Cap-2 Maneuver	-	-	-	-	-	-	545	741	-	684	746	-
Stage 1	-	-	-	-	-	-	863	775	-	1016	891	-
Stage 2	-	-	-	-	-	-	699	886	-	722	775	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	7.18	0	10.64	11.09
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	731	1607	-	-	1622	-	-	875
HCM Lane V/C Ratio	0.128	0.034	-	-	-	-	-	0.326
HCM Control Delay (s/veh)	10.6	7.3	-	-	0	-	-	11.1
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0	-	-	1.4



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	150		0	0		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.996			0.996			0.995	
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	1863	0	1770	1855	0	1863	1855	0	1863	1853	0
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	1863	0	1770	1855	0	1863	1855	0	1863	1853	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		340			1975			760			832	
Travel Time (s)		7.7			44.9			17.3			18.9	

Intersection Summary	
Area Type:	Other

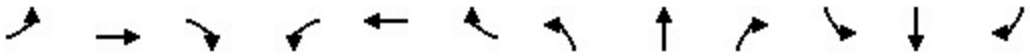
Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	15	0	31	32	1	0	265	6	0	221	7
Future Vol, veh/h	3	15	0	31	32	1	0	265	6	0	221	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	0	-	-	150	-	-
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	16	0	34	35	1	0	288	7	0	240	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	549	539	244	540	539	291	248	0	0	295	0	0
Stage 1	244	244	-	291	291	-	-	-	-	-	-	-
Stage 2	305	295	-	248	248	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	446	449	795	453	449	748	1318	-	-	1267	-	-
Stage 1	760	704	-	717	671	-	-	-	-	-	-	-
Stage 2	704	669	-	756	701	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	411	449	795	436	449	748	1318	-	-	1267	-	-
Mov Cap-2 Maneuver	411	449	-	436	449	-	-	-	-	-	-	-
Stage 1	760	704	-	717	671	-	-	-	-	-	-	-
Stage 2	667	669	-	738	701	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	13.4	13.76	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1318	-	-	411	449	436	455	1267	-	-
HCM Lane V/C Ratio	-	-	-	0.008	0.036	0.077	0.079	-	-	-
HCM Control Delay (s/veh)	0	-	-	13.8	13.3	13.9	13.6	0	-	-
HCM Lane LOS	A	-	-	B	B	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.2	0.3	0	-	-



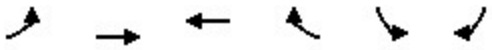
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	250		0	125		0	175		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.987			0.977			0.941			0.993	
Flt Protected		0.998			0.993			0.993			0.981	
Satd. Flow (prot)	0	3486	0	0	3434	0	0	3307	0	0	3448	0
Flt Permitted		0.998			0.993			0.993			0.981	
Satd. Flow (perm)	0	3486	0	0	3434	0	0	3307	0	0	3448	0
Link Speed (mph)		40			35			45			45	
Link Distance (ft)		631			610			567			842	
Travel Time (s)		10.8			11.9			8.6			12.8	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	704	530	274	497
Demand Flow Rate, veh/h	717	541	280	507
Vehicles Circulating, veh/h	558	195	851	499
Vehicles Exiting, veh/h	448	936	424	237
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.6	5.3	8.2	7.2
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.470	0.530	0.470	0.530	0.471	0.529	0.469	0.531
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	337	380	254	287	132	148	238	269
Cap Entry Lane, veh/h	808	884	1128	1203	617	689	853	929
Entry HV Adj Factor	0.981	0.981	0.982	0.980	0.977	0.983	0.982	0.980
Flow Entry, veh/h	331	373	249	281	129	145	234	264
Cap Entry, veh/h	793	867	1107	1179	603	677	838	910
V/C Ratio	0.417	0.430	0.225	0.239	0.214	0.215	0.279	0.290
Control Delay, s/veh	9.8	9.4	5.3	5.2	8.7	7.8	7.3	7.0
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	2	2	1	1	1	1	1	1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	150			150	0	0
Storage Lanes	1			1	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.996	
Flt Protected	0.950				0.954	
Satd. Flow (prot)	1770	3539	3539	1583	1770	0
Flt Permitted	0.950				0.954	
Satd. Flow (perm)	1770	3539	3539	1583	1770	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		350	935		1177	
Travel Time (s)		8.0	21.3		26.8	

Intersection Summary	
Area Type:	Other

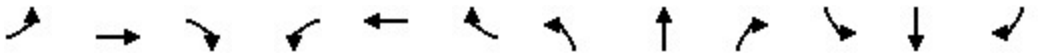
Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	763	447	83	141	5
Future Vol, veh/h	8	763	447	83	141	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	829	486	90	153	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	576	0	-	0	918	243
Stage 1	-	-	-	-	486	-
Stage 2	-	-	-	-	432	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	993	-	-	-	271	758
Stage 1	-	-	-	-	584	-
Stage 2	-	-	-	-	622	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	993	-	-	-	268	758
Mov Cap-2 Maneuver	-	-	-	-	268	-
Stage 1	-	-	-	-	579	-
Stage 2	-	-	-	-	622	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.09	0	34.63
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	993	-	-	-	275
HCM Lane V/C Ratio	0.009	-	-	-	0.578
HCM Control Delay (s/veh)	8.7	-	-	-	34.6
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	3.3



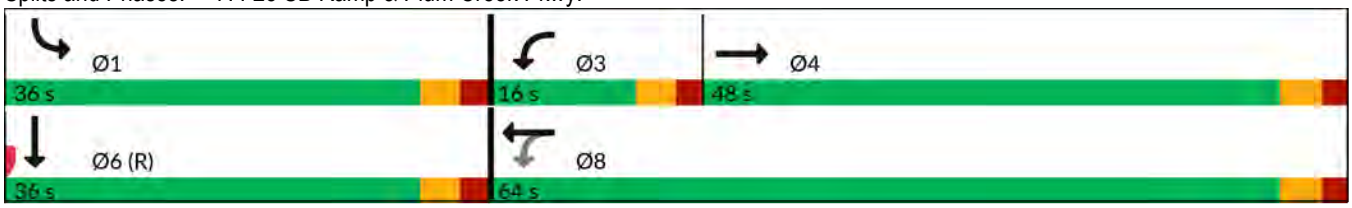
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		0	0		0	375		175	0		0
Storage Lanes	1		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt			0.850									0.850
Flt Protected				0.950						0.950	0.953	
Satd. Flow (prot)	0	5085	1583	1770	3539	0	0	0	0	3221	1615	1583
Flt Permitted				0.089						0.950	0.953	
Satd. Flow (perm)	0	5085	1583	166	3539	0	0	0	0	3221	1615	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			301									459
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		848			253			493			625	
Travel Time (s)		19.3			5.8			11.2			14.2	

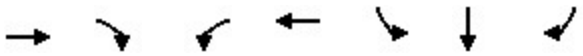
Intersection Summary	
Area Type:	Other

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	1329	370	206	991	611	5	512
Future Volume (vph)	1329	370	206	991	611	5	512
Turn Type	NA	Free	pm+pt	NA	Prot	NA	Free
Protected Phases	4		3	8	1	6	
Permitted Phases		Free	8				Free
Detector Phase	4		3	8	1	6	
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5		10.0	22.5	10.0	22.5	
Total Split (s)	48.0		16.0	64.0	36.0	36.0	
Total Split (%)	48.0%		16.0%	64.0%	36.0%	36.0%	
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0		5.0	5.0	5.0	5.0	
Lead/Lag	Lag		Lead				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	None		None	None	None	C-Max	
Act Effct Green (s)	39.7	100.0	55.6	55.6	34.4	34.4	100.0
Actuated g/C Ratio	0.40	1.00	0.56	0.56	0.34	0.34	1.00
v/c Ratio	0.72	0.25	0.84	0.55	0.40	0.40	0.35
Control Delay (s/veh)	27.4	0.4	48.5	15.1	27.2	28.9	0.6
Queue Delay	0.0	0.0	0.0	38.6	0.0	0.0	0.0
Total Delay (s/veh)	27.4	0.4	48.5	53.7	27.2	28.9	0.6
LOS	C	A	D	D	C	C	A
Approach Delay (s/veh)	21.5			52.8		15.4	
Approach LOS	C			D		B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2: and 6:SBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay (s/veh): 29.1	Intersection LOS: C
Intersection Capacity Utilization 112.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 7: I-25 SB Ramp & Plum Creek Pkwy.

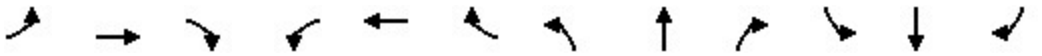




Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1445	402	224	1077	445	224	557
v/c Ratio	0.72	0.25	0.84	0.55	0.40	0.40	0.35
Control Delay (s/veh)	27.4	0.4	48.5	15.1	27.2	28.9	0.6
Queue Delay	0.0	0.0	0.0	38.6	0.0	0.0	0.0
Total Delay (s/veh)	27.4	0.4	48.5	53.7	27.2	28.9	0.6
Queue Length 50th (ft)	271	0	87	208	120	121	0
Queue Length 95th (ft)	313	0	#210	250	173	203	0
Internal Link Dist (ft)	768			173		545	
Turn Bay Length (ft)							
Base Capacity (vph)	2186	1583	268	2088	1109	556	1583
Starvation Cap Reductn	0	0	0	1083	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.25	0.84	1.07	0.40	0.40	0.35

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)	0	1329	370	206	991	0	0	0	0	611	5	512
Future Volume (veh/h)	0	1329	370	206	991	0	0	0	0	611	5	512
Initial Q (Qb), veh	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
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1445	0	224	1077	0				668	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1859		284	1812	0				2085	0	
Arrive On Green	0.00	0.36	0.00	0.10	0.51	0.00				0.39	0.00	0.00
Sat Flow, veh/h	0	5274	1585	1781	3647	0				5344	0	1585
Grp Volume(v), veh/h	0	1445	0	224	1077	0				668	0	0
Grp Sat Flow(s),veh/h/ln	0	1702	1585	1781	1777	0				1781	0	1585
Q Serve(g_s), s	0.0	25.1	0.0	7.5	21.3	0.0				8.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	25.1	0.0	7.5	21.3	0.0				8.7	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1859		284	1812	0				2085	0	
V/C Ratio(X)	0.00	0.78		0.79	0.59	0.00				0.32	0.00	
Avail Cap(c_a), veh/h	0	2196		310	2097	0				2085	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.26	0.26	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	28.2	0.0	21.8	17.2	0.0				21.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.5	0.0	3.4	0.1	0.0				0.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	10.2	0.0	3.2	8.3	0.0				3.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	29.7	0.0	25.2	17.3	0.0				21.3	0.0	0.0
LnGrp LOS		C		C	B					C		
Approach Vol, veh/h		1445			1301						668	
Approach Delay, s/veh		29.7			18.7						21.3	
Approach LOS		C			B						C	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		14.6	41.4		44.0		56.0					
Change Period (Y+Rc), s		5.0	5.0		5.0		5.0					
Max Green Setting (Gmax), s		11.0	43.0		31.0		59.0					
Max Q Clear Time (g_c+I1), s		9.5	27.1		10.7		23.3					
Green Ext Time (p_c), s		0.1	9.3		2.6		9.9					

Intersection Summary	
HCM 7th Control Delay, s/veh	23.9
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

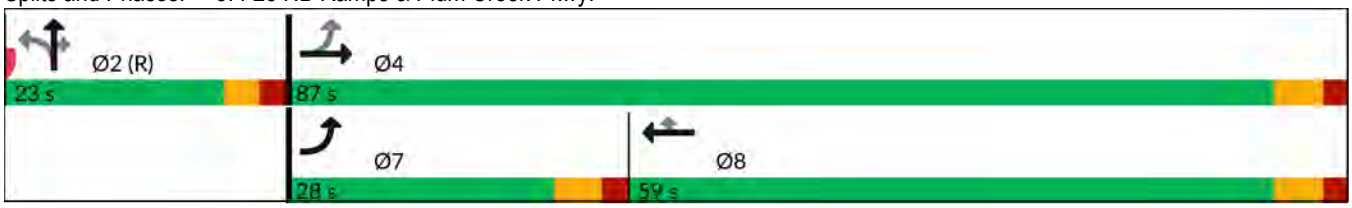
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	2		0	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	0.91	0.95	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.931	0.850		0.990	0.850			
Flt Protected	0.950						0.950	0.956				
Satd. Flow (prot)	3433	5085	0	0	3156	1441	1681	1604	1504	0	0	0
Flt Permitted	0.068						0.950	0.956				
Satd. Flow (perm)	246	5085	0	0	3156	1441	1681	1604	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					272	489		3	89			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		469			593			352			368	
Travel Time (s)		10.7			13.5			8.0			8.4	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	664	1321	809	1387	387	3	142
Future Volume (vph)	664	1321	809	1387	387	3	142
Turn Type	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	8			2	
Permitted Phases	4			8	2		2
Detector Phase	7	4	8	8	2	2	2
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	28.0	87.0	59.0	59.0	23.0	23.0	23.0
Total Split (%)	25.5%	79.1%	53.6%	53.6%	20.9%	20.9%	20.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	81.0	81.0	53.0	53.0	18.0	18.0	18.0
Actuated g/C Ratio	0.74	0.74	0.48	0.48	0.16	0.16	0.16
v/c Ratio	0.88	0.38	0.98	0.80	0.80	0.83	0.43
Control Delay (s/veh)	43.9	5.7	42.4	15.2	66.1	70.4	21.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.9	5.7	42.4	15.2	66.1	70.4	21.3
LOS	D	A	D	B	E	E	C
Approach Delay (s/veh)		18.4	33.8			57.0	
Approach LOS		B	C			E	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay (s/veh): 30.0	Intersection LOS: C
Intersection Capacity Utilization 102.6%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 8: I-25 NB Ramps & Plum Creek Pkwy.

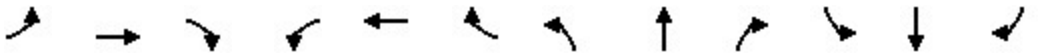




Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	722	1436	1633	754	219	220	139
v/c Ratio	0.88	0.38	0.98	0.80	0.80	0.83	0.43
Control Delay (s/veh)	43.9	5.7	42.4	15.2	66.1	70.4	21.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.9	5.7	42.4	15.2	66.1	70.4	21.3
Queue Length 50th (ft)	202	117	536	169	157	164	32
Queue Length 95th (ft)	#304	138	#737	385	#286	#309	95
Internal Link Dist (ft)		389	513			272	
Turn Bay Length (ft)							
Base Capacity (vph)	818	3744	1661	947	275	264	320
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.38	0.98	0.80	0.80	0.83	0.43

Intersection Summary

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

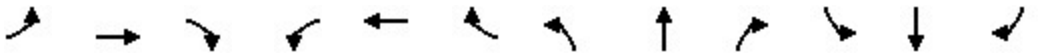


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	664	1321	0	0	809	1387	387	3	142	0	0	0
Future Volume (veh/h)	664	1321	0	0	809	1387	387	3	142	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	722	1436	0	0	879	1508	470	0	104			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	788	3700	0	0	901	1527	625	0	278			
Arrive On Green	0.19	0.72	0.00	0.00	0.48	0.48	0.18	0.00	0.18			
Sat Flow, veh/h	3456	5274	0	0	1870	3170	3563	0	1585			
Grp Volume(v), veh/h	722	1436	0	0	879	1508	470	0	104			
Grp Sat Flow(s),veh/h/ln	1728	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	18.1	11.9	0.0	0.0	50.5	51.7	13.8	0.0	6.4			
Cycle Q Clear(g_c), s	18.1	11.9	0.0	0.0	50.5	51.7	13.8	0.0	6.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	788	3700	0	0	901	1527	625	0	278			
V/C Ratio(X)	0.92	0.39	0.00	0.00	0.98	0.99	0.75	0.00	0.37			
Avail Cap(c_a), veh/h	828	3760	0	0	901	1527	625	0	278			
HCM Platoon Ratio	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	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	35.3	5.8	0.0	0.0	27.9	28.2	43.1	0.0	40.0			
Incr Delay (d2), s/veh	14.5	0.1	0.0	0.0	24.0	20.0	8.2	0.0	3.8			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	10.5	3.7	0.0	0.0	27.5	22.8	6.8	0.0	2.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	49.8	5.9	0.0	0.0	51.9	48.1	51.2	0.0	43.8			
LnGrp LOS	D	A			D	D	D		D			
Approach Vol, veh/h		2158			2387			574				
Approach Delay, s/veh		20.6			49.5			49.9				
Approach LOS		C			D			D				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		24.3		85.7			26.7	59.0				
Change Period (Y+Rc), s		5.0		6.0			6.0	6.0				
Max Green Setting (Gmax), s		18.0		81.0			22.0	53.0				
Max Q Clear Time (g_c+I1), s		15.8		13.9			20.1	53.7				
Green Ext Time (p_c), s		0.5		16.6			0.6	0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	37.4
HCM 7th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.



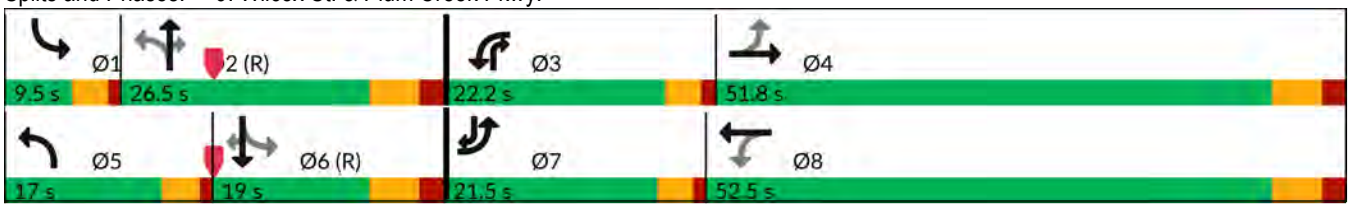
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		0	225		0	225		250	175		200
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.985				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	5009	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.080			0.246			0.524			0.665		
Satd. Flow (perm)	149	3539	1583	458	5009	0	1894	1863	1583	1239	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			208		21				69			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		709			907			521			491	
Travel Time (s)		16.1			20.6			11.8			11.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	296	954	198	61	1369	577	133	42	78	91	208
Future Volume (vph)	296	954	198	61	1369	577	133	42	78	91	208
Turn Type	pm+pt	NA	Free	pm+pt	NA	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	7	4		3	8	5	2	3	1	6	7
Permitted Phases	4		Free	8		2		2	6		6
Detector Phase	7	4		3	8	5	2	3	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	31.0		9.5	31.0	9.5	36.0	9.5	9.5	34.0	9.5
Total Split (s)	21.5	51.8		22.2	52.5	17.0	26.5	22.2	9.5	19.0	21.5
Total Split (%)	19.5%	47.1%		20.2%	47.7%	15.5%	24.1%	20.2%	8.6%	17.3%	19.5%
Yellow Time (s)	3.0	4.0		3.0	4.0	3.0	4.0	3.0	3.0	4.0	3.0
All-Red Time (s)	1.0	2.0		1.0	2.0	1.0	2.0	1.0	1.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	69.0	57.9	110.0	54.5	45.5	33.0	23.4	36.4	20.9	13.2	36.7
Actuated g/C Ratio	0.63	0.53	1.00	0.50	0.41	0.30	0.21	0.33	0.19	0.12	0.33
v/c Ratio	0.92	0.56	0.14	0.21	0.79	0.82	0.37	0.08	0.32	0.44	0.38
Control Delay (s/veh)	69.3	13.9	0.1	10.3	31.1	44.6	41.8	3.3	34.2	52.0	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	69.3	13.9	0.1	10.3	31.1	44.6	41.8	3.3	34.2	52.0	16.1
LOS	E	B	A	B	C	D	D	A	C	D	B
Approach Delay (s/veh)		23.4			30.3		41.8			28.5	
Approach LOS		C			C		D			C	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay (s/veh): 29.8	Intersection LOS: C
Intersection Capacity Utilization 84.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 9: Wilcox St. & Plum Creek Pkwy.

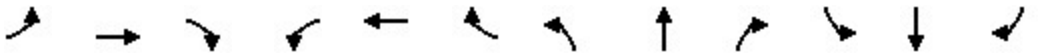




Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	322	1037	215	66	1652	627	145	46	85	99	226
v/c Ratio	0.92	0.56	0.14	0.21	0.79	0.82	0.37	0.08	0.32	0.44	0.38
Control Delay (s/veh)	69.3	13.9	0.1	10.3	31.1	44.6	41.8	3.3	34.2	52.0	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	69.3	13.9	0.1	10.3	31.1	44.6	41.8	3.3	34.2	52.0	16.1
Queue Length 50th (ft)	194	147	0	16	355	197	91	0	45	66	59
Queue Length 95th (ft)	m#349	176	m0	33	416	#279	154	15	85	121	125
Internal Link Dist (ft)		629			827		441			411	
Turn Bay Length (ft)	325			225		225		250	175		200
Base Capacity (vph)	351	1862	1583	490	2129	761	396	724	262	224	601
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.56	0.14	0.13	0.78	0.82	0.37	0.06	0.32	0.44	0.38

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	296	954	198	61	1369	151	577	133	42	78	91	208
Future Volume (veh/h)	296	954	198	61	1369	151	577	133	42	78	91	208
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	322	1037	0	66	1488	164	627	145	46	85	99	226
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	345	1729		345	1799	198	801	453	446	362	325	499
Arrive On Green	0.28	0.97	0.00	0.04	0.39	0.39	0.12	0.24	0.24	0.05	0.17	0.17
Sat Flow, veh/h	1781	3554	1585	1781	4668	514	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	322	1037	0	66	1085	567	627	145	46	85	99	226
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1778	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	13.2	2.1	0.0	2.4	31.6	31.7	13.0	7.0	2.4	4.3	5.1	12.5
Cycle Q Clear(g_c), s	13.2	2.1	0.0	2.4	31.6	31.7	13.0	7.0	2.4	4.3	5.1	12.5
Prop In Lane	1.00		1.00	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	345	1729		345	1312	685	801	453	446	362	325	499
V/C Ratio(X)	0.93	0.60		0.19	0.83	0.83	0.78	0.32	0.10	0.23	0.30	0.45
Avail Cap(c_a), veh/h	378	1729		570	1439	752	801	453	446	362	325	499
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.5	0.8	0.0	18.9	30.5	30.5	34.2	34.2	29.2	34.8	39.6	30.1
Incr Delay (d2), s/veh	22.1	0.4	0.0	0.3	3.8	7.1	5.1	1.9	0.5	0.3	2.4	3.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	0.4	0.0	1.0	13.3	14.6	2.3	3.4	1.0	1.9	2.6	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.6	1.2	0.0	19.2	34.3	37.6	39.3	36.1	29.7	35.1	42.0	33.1
LnGrp LOS	D	A		B	C	D	D	D	C	D	D	C
Approach Vol, veh/h		1359			1718			818			410	
Approach Delay, s/veh		11.2			34.8			38.2			35.7	
Approach LOS		B			C			D			D	

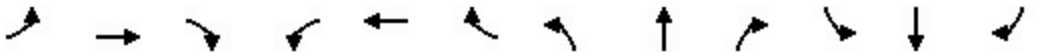
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	32.6	8.3	59.5	17.0	25.1	19.5	48.4
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	5.5	20.5	18.2	45.8	13.0	13.0	17.5	46.5
Max Q Clear Time (g_c+I1), s	6.3	9.0	4.4	4.1	15.0	14.5	15.2	33.7
Green Ext Time (p_c), s	0.0	0.6	0.1	9.7	0.0	0.0	0.2	8.7

Intersection Summary	
HCM 7th Control Delay, s/veh	28.1
HCM 7th LOS	C

Notes

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

Unsignalized Delay for [EBR] 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 Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.936			0.984			0.912			0.957	
Flt Protected		0.974			0.958			0.997			0.990	
Satd. Flow (prot)	0	1698	0	0	1756	0	0	3218	0	0	3353	0
Flt Permitted		0.974			0.958			0.997			0.990	
Satd. Flow (perm)	0	1698	0	0	1756	0	0	3218	0	0	3353	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		632			449			796			760	
Travel Time (s)		14.4			10.2			18.1			17.3	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	5.8
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	209	278	708	273
Demand Flow Rate, veh/h	213	284	722	279
Vehicles Circulating, veh/h	449	409	168	289
Vehicles Exiting, veh/h	119	481	494	404
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.9	6.5	6.0	4.6
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	R	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.411	0.589	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1420	1420	1350	1420	1350	1420
B (Slope)	8.501e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	213	284	297	425	131	148
Cap Entry Lane, veh/h	970	1003	1157	1231	1035	1111
Entry HV Adj Factor	0.981	0.979	0.980	0.981	0.980	0.978
Flow Entry, veh/h	209	278	291	417	128	145
Cap Entry, veh/h	951	982	1133	1208	1014	1087
V/C Ratio	0.220	0.283	0.257	0.345	0.127	0.133
Control Delay, s/veh	5.9	6.5	5.6	6.3	4.7	4.5
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	1	1	2	0	0

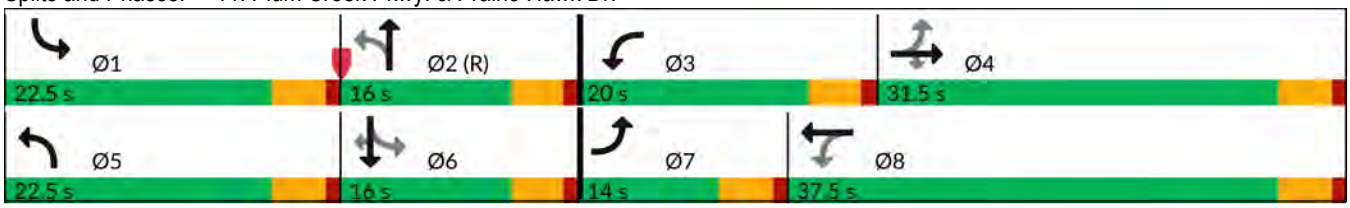
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	250		250	250		0	250		150	250		150
Storage Lanes	1		1	2		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	3433	3539	1583	1770	3539	1583	3433	3539	1583
Flt Permitted	0.193			0.206			0.692			0.666		
Satd. Flow (perm)	360	3539	1583	744	3539	1583	1289	3539	1583	2407	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			182			676			265			182
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		881			632			431			590	
Travel Time (s)		20.0			14.4			9.8			13.4	

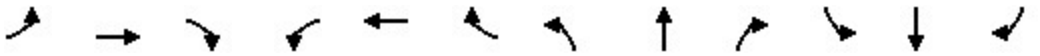
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	235	643	76	225	653	626	107	124	599	457	87	138
Future Volume (vph)	235	643	76	225	653	626	107	124	599	457	87	138
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		Free	2		Free	6		6
Detector Phase	7	4	4	3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.5	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	9.0	22.5	22.5	9.5	22.5		22.5	17.0		22.5	17.0	17.0
Total Split (s)	14.0	31.5	31.5	20.0	37.5		22.5	16.0		22.5	16.0	16.0
Total Split (%)	15.6%	35.0%	35.0%	22.2%	41.7%		25.0%	17.8%		25.0%	17.8%	17.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		Max	C-Max		Max	Max	Max
Act Effct Green (s)	35.1	25.6	25.6	34.7	25.4	90.0	37.1	11.5	90.0	37.1	11.5	11.5
Actuated g/C Ratio	0.39	0.28	0.28	0.39	0.28	1.00	0.41	0.13	1.00	0.41	0.13	0.13
v/c Ratio	0.88	0.69	0.14	0.43	0.71	0.43	0.17	0.30	0.41	0.39	0.21	0.42
Control Delay (s/veh)	49.4	32.3	0.5	17.1	32.7	0.9	16.6	37.6	0.8	17.5	36.5	7.1
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)	49.4	32.3	0.5	17.1	32.7	0.9	16.6	37.6	0.8	17.5	36.5	7.1
LOS	D	C	A	B	C	A	B	D	A	B	D	A
Approach Delay (s/veh)		33.9			17.1			8.3			17.8	
Approach LOS		C			B			A			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay (s/veh): 19.4	Intersection LOS: B
Intersection Capacity Utilization 63.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 11: Plum Creek Pkwy. & Prairie Hawk Dr.

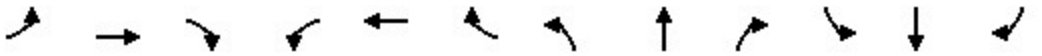




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	255	699	83	245	710	680	116	135	651	497	95	150
v/c Ratio	0.88	0.69	0.14	0.43	0.71	0.43	0.17	0.30	0.41	0.39	0.21	0.42
Control Delay (s/veh)	49.4	32.3	0.5	17.1	32.7	0.9	16.6	37.6	0.8	17.5	36.5	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	49.4	32.3	0.5	17.1	32.7	0.9	16.6	37.6	0.8	17.5	36.5	7.1
Queue Length 50th (ft)	93	187	0	42	191	0	36	37	0	87	25	0
Queue Length 95th (ft)	#189	223	0	54	222	0	80	65	0	144	48	35
Internal Link Dist (ft)		801			552			351			510	
Turn Bay Length (ft)	250		250	250			250		150	250		150
Base Capacity (vph)	289	1104	619	788	1297	1583	667	452	1583	1283	452	361
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	0.88	0.63	0.13	0.31	0.55	0.43	0.17	0.30	0.41	0.39	0.21	0.42

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)	235	643	76	225	653	626	107	124	599	457	87	138
Future Volume (veh/h)	235	643	76	225	653	626	107	124	599	457	87	138
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	255	699	83	245	710	0	116	135	0	497	95	150
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	319	1001	447	575	906		684	851		1361	851	379
Arrive On Green	0.11	0.28	0.28	0.08	0.26	0.00	0.20	0.24	0.00	0.20	0.24	0.24
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	255	699	83	245	710	0	116	135	0	497	95	150
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1777	1585	1728	1777	1585
Q Serve(g_s), s	9.5	15.8	3.6	4.6	16.7	0.0	3.5	2.7	0.0	8.5	1.9	7.2
Cycle Q Clear(g_c), s	9.5	15.8	3.6	4.6	16.7	0.0	3.5	2.7	0.0	8.5	1.9	7.2
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	319	1001	447	575	906		684	851		1361	851	379
V/C Ratio(X)	0.80	0.70	0.19	0.43	0.78		0.17	0.16		0.37	0.11	0.40
Avail Cap(c_a), veh/h	319	1066	476	897	1303		684	851		1361	851	379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	28.9	24.5	22.7	31.2	0.0	15.2	27.1	0.0	16.6	26.7	28.8
Incr Delay (d2), s/veh	13.4	1.9	0.2	0.5	2.0	0.0	0.5	0.4	0.0	0.8	0.3	3.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	6.8	1.3	1.9	7.2	0.0	1.5	1.2	0.0	3.4	0.8	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.3	30.8	24.7	23.2	33.2	0.0	15.7	27.5	0.0	17.3	27.0	31.8
LnGrp LOS	D	C	C	C	C		B	C		B	C	C
Approach Vol, veh/h		1037			955			251			742	
Approach Delay, s/veh		31.9			30.7			22.0			21.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.5	26.0	11.6	29.9	22.5	26.0	14.0	27.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	11.5	15.5	27.0	18.0	11.5	9.5	33.0
Max Q Clear Time (g_c+I1), s	10.5	4.7	6.6	17.8	5.5	9.2	11.5	18.7
Green Ext Time (p_c), s	1.2	0.3	0.5	3.4	0.2	0.2	0.0	4.2

Intersection Summary	
HCM 7th Control Delay, s/veh	28.1
HCM 7th LOS	C

Notes

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

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



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	150	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Ped Bike Factor						
Frt		0.865		0.850		
Flt Protected					0.950	
Satd. Flow (prot)	0	1611	3539	1583	1770	3539
Flt Permitted					0.950	
Satd. Flow (perm)	0	1611	3539	1583	1770	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	1182		590			796
Travel Time (s)	26.9		13.4			18.1

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	190	1021	29	29	725
Future Vol, veh/h	0	190	1021	29	29	725
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	Free	-	None
Storage Length	-	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	207	1110	32	32	788

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	555	0	-	1110	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	475	-	0	625	-
Stage 1	0	-	-	0	-	-
Stage 2	0	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	475	-	-	625	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	18.27	0	0.43
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	WBLn1	SBL	SBT
Capacity (veh/h)	-	475	625	-
HCM Lane V/C Ratio	-	0.434	0.05	-
HCM Control Delay (s/veh)	-	18.3	11.1	-
HCM Lane LOS	-	C	B	-
HCM 95th %tile Q(veh)	-	2.2	0.2	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	100	100			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.938	
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	1863	1863	1747	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1863	1747	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	459			949	427	
Travel Time (s)	10.4			21.6	16.2	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	39	0	0	45	50	42
Future Vol, veh/h	39	0	0	45	50	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	0	0	49	54	46

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	126	77	100	0	-	0
Stage 1	77	-	-	-	-	-
Stage 2	49	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	869	984	1493	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	974	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	869	984	1493	-	-	-
Mov Cap-2 Maneuver	869	-	-	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	974	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.36	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1493	-	869	-	-	-
HCM Lane V/C Ratio	-	-	0.049	-	-	-
HCM Control Delay (s/veh)	0	-	9.4	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	100	0	100			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.877	
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	1863	1863	1634	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1863	1634	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	466			465	949	
Travel Time (s)	10.6			10.6	21.6	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	38	0	0	7	5	45
Future Vol, veh/h	38	0	0	7	5	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	0	0	8	5	49

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	38	30	54	0	-	0
Stage 1	30	-	-	-	-	-
Stage 2	8	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	975	1045	1551	-	-	-
Stage 1	993	-	-	-	-	-
Stage 2	1015	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	975	1045	1551	-	-	-
Mov Cap-2 Maneuver	975	-	-	-	-	-
Stage 1	993	-	-	-	-	-
Stage 2	1015	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.86	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1551	-	975	-	-	-
HCM Lane V/C Ratio	-	-	0.042	-	-	-
HCM Control Delay (s/veh)	0	-	8.9	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	100	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.865	
Flt Protected	0.950			0.950		
Satd. Flow (prot)	1770	1583	0	1770	1611	0
Flt Permitted	0.950			0.950		
Satd. Flow (perm)	1770	1583	0	1770	1611	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	449			351	193	
Travel Time (s)	10.2			8.0	4.4	

Intersection Summary	
Area Type:	Other

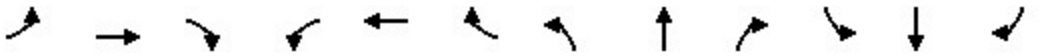
Intersection	
Int Delay, s/veh	9.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	112	323	177	0	0	79
Future Vol, veh/h	112	323	177	0	0	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	122	351	192	0	0	86

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	428	43	86	0	-	0
Stage 1	43	-	-	-	-	-
Stage 2	385	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	584	1027	1510	-	-	-
Stage 1	980	-	-	-	-	-
Stage 2	688	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	510	1027	1510	-	-	-
Mov Cap-2 Maneuver	510	-	-	-	-	-
Stage 1	855	-	-	-	-	-
Stage 2	688	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	11.33	7.73	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1510	-	510	1027	-	-
HCM Lane V/C Ratio	0.127	-	0.239	0.342	-	-
HCM Control Delay (s/veh)	7.7	0	14.3	10.3	-	-
HCM Lane LOS	A	A	B	B	-	-
HCM 95th %tile Q(veh)	0.4	-	0.9	1.5	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.971			0.988			0.917			0.910	
Flt Protected		0.967			0.964			0.981			0.984	
Satd. Flow (prot)	0	1749	0	0	1774	0	0	1676	0	0	1668	0
Flt Permitted		0.967			0.964			0.981			0.984	
Satd. Flow (perm)	0	1749	0	0	1774	0	0	1676	0	0	1668	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		527			459			945			208	
Travel Time (s)		12.0			10.4			21.5			4.7	

Intersection Summary	
Area Type:	Other

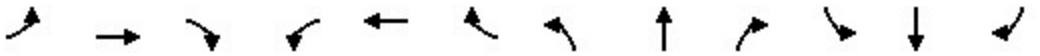
Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	62	8	19	31	7	4	16	0	25	6	0	13
Future Vol, veh/h	62	8	19	31	7	4	16	0	25	6	0	13
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	67	9	21	34	8	4	17	0	27	7	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	12	0	0	29	0	0	229	233	19	221	241	10
Stage 1	-	-	-	-	-	-	154	154	-	77	77	-
Stage 2	-	-	-	-	-	-	75	79	-	143	164	-
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	1607	-	-	1584	-	-	726	667	1059	735	660	1072
Stage 1	-	-	-	-	-	-	849	770	-	932	831	-
Stage 2	-	-	-	-	-	-	934	829	-	859	762	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1607	-	-	1584	-	-	671	625	1059	671	618	1072
Mov Cap-2 Maneuver	-	-	-	-	-	-	671	625	-	671	618	-
Stage 1	-	-	-	-	-	-	812	737	-	912	813	-
Stage 2	-	-	-	-	-	-	902	811	-	802	730	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	5.11	5.4	9.39	9.09
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	864	1099	-	-	1238	-	-	902
HCM Lane V/C Ratio	0.052	0.042	-	-	0.021	-	-	0.023
HCM Control Delay (s/veh)	9.4	7.3	0	-	7.3	0	-	9.1
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.860			0.925			0.972			0.892	
Flt Protected	0.950			0.950				0.964			0.994	
Satd. Flow (prot)	1770	1602	0	1770	1723	0	0	1745	0	0	1652	0
Flt Permitted	0.950			0.950				0.964			0.994	
Satd. Flow (perm)	1770	1602	0	1770	1723	0	0	1745	0	0	1652	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		456			466			280			945	
Travel Time (s)		10.4			10.6			6.4			21.5	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	138	11	156	18	20	20	71	5	19	11	9	79
Future Vol, veh/h	138	11	156	18	20	20	71	5	19	11	9	79
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	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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	150	12	170	20	22	22	77	5	21	12	10	86

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	43	0	0	182	0	0	463	479	97	386	553	33
Stage 1	-	-	-	-	-	-	397	397	-	72	72	-
Stage 2	-	-	-	-	-	-	66	83	-	315	482	-
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	1565	-	-	1394	-	-	510	486	960	572	441	1041
Stage 1	-	-	-	-	-	-	629	604	-	938	835	-
Stage 2	-	-	-	-	-	-	945	826	-	696	554	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1565	-	-	1394	-	-	408	433	960	493	393	1041
Mov Cap-2 Maneuver	-	-	-	-	-	-	408	433	-	493	393	-
Stage 1	-	-	-	-	-	-	569	546	-	925	823	-
Stage 2	-	-	-	-	-	-	845	815	-	610	500	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	3.41	2.36	15.02	10.07
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	462	1565	-	-	1394	-	-	818
HCM Lane V/C Ratio	0.223	0.096	-	-	0.014	-	-	0.132
HCM Control Delay (s/veh)	15	7.5	-	-	7.6	-	-	10.1
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.8	0.3	-	-	0	-	-	0.5



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.965	
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1863	1798	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1863	1798	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	394			427	522	
Travel Time (s)	9.0			9.5	6.7	

Intersection Summary	
Area Type:	Other

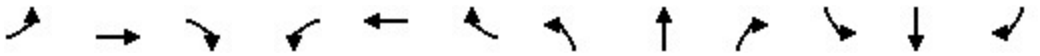
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	0	0	85	92	32
Future Vol, veh/h	2	0	0	85	92	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	0	0	92	100	35

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	210	117	135	0	-	0
Stage 1	117	-	-	-	-	-
Stage 2	92	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	779	935	1450	-	-	-
Stage 1	908	-	-	-	-	-
Stage 2	931	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	779	935	1450	-	-	-
Mov Cap-2 Maneuver	779	-	-	-	-	-
Stage 1	908	-	-	-	-	-
Stage 2	931	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.64	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1450	-	779	-	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Control Delay (s/veh)	0	-	9.6	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-



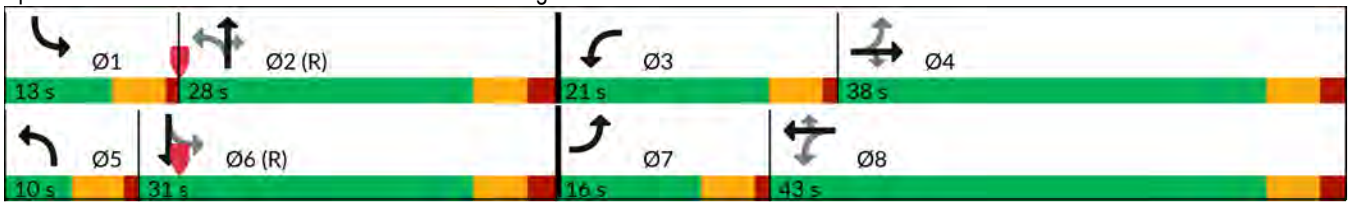
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		100	125		100	225		150	350		0
Storage Lanes	1		1	1		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850			0.850		0.940	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	3327	0
Flt Permitted	0.477			0.262			0.542			0.532		
Satd. Flow (perm)	889	3539	1583	488	3539	1583	1010	3539	1583	1923	3327	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			142			264			378		139	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		640			556			458			666	
Travel Time (s)		14.5			12.6			10.4			15.1	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	63	427	53	306	443	243	72	235	404	277	193
Future Volume (vph)	63	427	53	306	443	243	72	235	404	277	193
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	38.0	38.0	10.0	40.0	40.0	10.0	33.0	33.0	10.0	32.0
Total Split (s)	16.0	38.0	38.0	21.0	43.0	43.0	10.0	28.0	28.0	13.0	31.0
Total Split (%)	16.0%	38.0%	38.0%	21.0%	43.0%	43.0%	10.0%	28.0%	28.0%	13.0%	31.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	27.8	19.1	19.1	40.7	29.1	29.1	41.7	32.7	32.7	47.4	37.5
Actuated g/C Ratio	0.28	0.19	0.19	0.41	0.29	0.29	0.42	0.33	0.33	0.47	0.38
v/c Ratio	0.22	0.69	0.14	0.83	0.47	0.41	0.16	0.22	0.57	0.28	0.26
Control Delay (s/veh)	19.3	42.7	0.7	40.5	30.9	5.4	16.3	26.9	8.9	15.8	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.3	42.7	0.7	40.5	30.9	5.4	16.3	26.9	8.9	15.8	15.3
LOS	B	D	A	D	C	A	B	C	A	B	B
Approach Delay (s/veh)		35.9			27.6			15.6			15.5
Approach LOS		D			C			B			B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay (s/veh): 23.7	Intersection LOS: C
Intersection Capacity Utilization 61.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Prairie Hawk Dr. & Wolfensberger Rd.

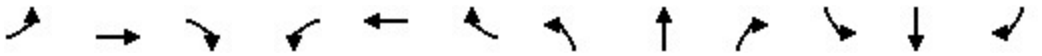




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	68	464	58	333	482	264	78	255	439	301	349
v/c Ratio	0.22	0.69	0.14	0.83	0.47	0.41	0.16	0.22	0.57	0.28	0.26
Control Delay (s/veh)	19.3	42.7	0.7	40.5	30.9	5.4	16.3	26.9	8.9	15.8	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.3	42.7	0.7	40.5	30.9	5.4	16.3	26.9	8.9	15.8	15.3
Queue Length 50th (ft)	26	145	0	150	135	0	26	62	27	53	48
Queue Length 95th (ft)	48	186	0	#223	176	56	57	106	132	88	94
Internal Link Dist (ft)		560			476			378			586
Turn Bay Length (ft)	325		100	125		100	225		150	350	
Base Capacity (vph)	373	1132	603	403	1309	752	481	1158	772	1071	1333
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.41	0.10	0.83	0.37	0.35	0.16	0.22	0.57	0.28	0.26

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)	63	427	53	306	443	243	72	235	404	277	193	128
Future Volume (veh/h)	63	427	53	306	443	243	72	235	404	277	193	128
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	68	464	58	333	482	264	78	255	439	301	210	139
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	275	620	277	402	1033	461	492	1321	589	869	838	530
Arrive On Green	0.04	0.17	0.17	0.16	0.29	0.29	0.04	0.37	0.37	0.07	0.40	0.40
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	3456	2089	1321
Grp Volume(v), veh/h	68	464	58	333	482	264	78	255	439	301	177	172
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1728	1777	1633
Q Serve(g_s), s	3.1	12.4	3.1	14.8	11.1	14.2	2.7	4.9	24.1	5.3	6.6	7.0
Cycle Q Clear(g_c), s	3.1	12.4	3.1	14.8	11.1	14.2	2.7	4.9	24.1	5.3	6.6	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.81
Lane Grp Cap(c), veh/h	275	620	277	402	1033	461	492	1321	589	869	713	655
V/C Ratio(X)	0.25	0.75	0.21	0.83	0.47	0.57	0.16	0.19	0.75	0.35	0.25	0.26
Avail Cap(c_a), veh/h	393	1137	507	402	1315	586	502	1321	589	891	713	655
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.8	39.2	35.4	27.2	29.1	30.2	17.9	21.3	27.3	17.0	19.9	20.0
Incr Delay (d2), s/veh	0.5	1.8	0.4	13.6	0.3	1.1	0.1	0.3	8.3	0.2	0.8	1.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	5.5	1.2	7.7	4.7	5.5	1.1	2.1	10.2	2.1	2.9	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.2	41.0	35.7	40.7	29.4	31.3	18.1	21.6	35.6	17.2	20.7	21.0
LnGrp LOS	C	D	D	D	C	C	B	C	D	B	C	C
Approach Vol, veh/h		590			1079			772			650	
Approach Delay, s/veh		39.5			33.4			29.2			19.2	
Approach LOS		D			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	43.2	21.0	23.5	9.4	46.1	9.4	35.1
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	8.0	22.0	16.0	32.0	5.0	25.0	11.0	37.0
Max Q Clear Time (g_c+I1), s	7.3	26.1	16.8	14.4	4.7	9.0	5.1	16.2
Green Ext Time (p_c), s	0.1	0.0	0.0	3.1	0.0	1.8	0.1	4.2

Intersection Summary	
HCM 7th Control Delay, s/veh	30.5
HCM 7th LOS	C

Notes

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



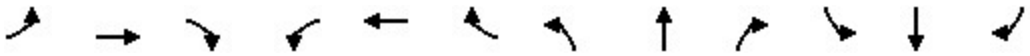
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						0.850
Flt Protected	0.952			0.999		
Satd. Flow (prot)	1773	0	0	1861	1863	1583
Flt Permitted	0.952			0.999		
Satd. Flow (perm)	1773	0	0	1861	1863	1583
Link Speed (mph)	30			30	30	
Link Distance (ft)	889			616	519	
Travel Time (s)	9.5			14.0	11.8	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	5.4
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	444	291	622
Demand Flow Rate, veh/h	453	297	634
Vehicles Circulating, veh/h	278	452	4
Vehicles Exiting, veh/h	4	279	745
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.4	8.1	1.9
Approach LOS	A	A	A

Lane	Left	Left	Left	Bypass
Designated Moves	LR	LT	T	R
Assumed Moves	LR	LT	T	
RT Channelized				Free
Lane Util	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	
A (Intercept)	1380	1380	1380	
B (Slope)	1.02e-3	1.02e-3	1.02e-3	
Entry Flow, veh/h	453	297	278	356
Cap Entry Lane, veh/h	1039	870	1374	1938
Entry HV Adj Factor	0.980	0.981	0.980	0.980
Flow Entry, veh/h	444	291	273	349
Cap Entry, veh/h	1019	853	1347	1900
V/C Ratio	0.436	0.341	0.202	0.184
Control Delay, s/veh	8.4	8.1	4.4	0.0
LOS	A	A	A	A
95th %tile Queue, veh	2	2	1	1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.850			0.850						0.936	
Flt Protected	0.950										0.999	
Satd. Flow (prot)	1770	1583	0	1863	1583	0	0	1863	0	0	1742	0
Flt Permitted	0.950										0.999	
Satd. Flow (perm)	1770	1583	0	1863	1583	0	0	1863	0	0	1742	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		616			675			1975			245	
Travel Time (s)		14.0			20.7			44.9			5.6	

Intersection Summary	
Area Type:	Other

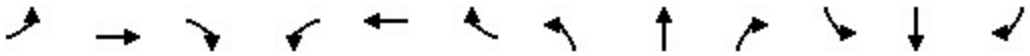
Intersection	
Int Delay, s/veh	11.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	98	0	1	0	0	18	1	143	0	7	132	126
Future Vol, veh/h	98	0	1	0	0	18	1	143	0	7	132	126
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	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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	107	0	1	0	0	20	1	155	0	8	143	137

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	20	0	0	1	0	0	285	233	1	301	224	10
Stage 1	-	-	-	-	-	-	214	214	-	10	10	-
Stage 2	-	-	-	-	-	-	72	20	-	291	214	-
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	1597	-	-	1622	-	-	667	667	1084	652	675	1072
Stage 1	-	-	-	-	-	-	789	726	-	1011	887	-
Stage 2	-	-	-	-	-	-	938	879	-	717	725	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1597	-	-	1622	-	-	426	623	1084	464	630	1072
Mov Cap-2 Maneuver	-	-	-	-	-	-	426	623	-	464	630	-
Stage 1	-	-	-	-	-	-	736	677	-	1011	887	-
Stage 2	-	-	-	-	-	-	686	879	-	516	677	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	7.34	0	12.75	12.38
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	621	1597	-	-	1622	-	-	774
HCM Lane V/C Ratio	0.252	0.067	-	-	-	-	-	0.372
HCM Control Delay (s/veh)	12.7	7.4	-	-	0	-	-	12.4
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	1	0.2	-	-	0	-	-	1.7



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	150		0	0		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.973			0.998			0.993	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	1863	0	1770	1812	0	1863	1859	0	1770	1850	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	1863	0	1770	1812	0	1863	1859	0	1770	1850	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		340			1975			760			832	
Travel Time (s)		7.7			44.9			17.3			18.9	

Intersection Summary	
Area Type:	Other

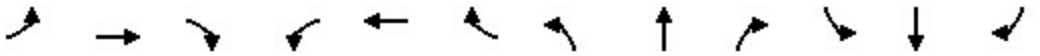
Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	38	0	73	21	5	0	238	3	4	189	9
Future Vol, veh/h	11	38	0	73	21	5	0	238	3	4	189	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	0	-	-	150	-	-
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	12	41	0	79	23	5	0	259	3	4	205	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	489	481	210	495	484	260	215	0	0	262	0	0
Stage 1	219	219	-	260	260	-	-	-	-	-	-	-
Stage 2	270	262	-	235	224	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	489	485	830	485	483	778	1355	-	-	1302	-	-
Stage 1	783	722	-	745	693	-	-	-	-	-	-	-
Stage 2	736	692	-	768	718	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	461	483	830	442	481	778	1355	-	-	1302	-	-
Mov Cap-2 Maneuver	461	483	-	442	481	-	-	-	-	-	-	-
Stage 1	781	719	-	745	693	-	-	-	-	-	-	-
Stage 2	706	692	-	722	716	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	13.12	14.24	0	0.15
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1355	-	-	461	483	442	519	1302	-	-
HCM Lane V/C Ratio	-	-	-	0.026	0.086	0.18	0.054	0.003	-	-
HCM Control Delay (s/veh)	0	-	-	13	13.2	14.9	12.3	7.8	-	-
HCM Lane LOS	A	-	-	B	B	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0.6	0.2	0	-	-



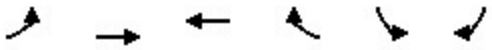
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	250		0	125		0	175		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.981			0.965			0.972			0.982	
Flt Protected		0.998			0.994			0.993			0.987	
Satd. Flow (prot)	0	3465	0	0	3395	0	0	3416	0	0	3430	0
Flt Permitted		0.998			0.994			0.993			0.987	
Satd. Flow (perm)	0	3465	0	0	3395	0	0	3416	0	0	3430	0
Link Speed (mph)		40			35			45			45	
Link Distance (ft)		631			610			567			842	
Travel Time (s)		10.8			11.9			8.6			12.8	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	535	717	428	417
Demand Flow Rate, veh/h	545	731	437	425
Vehicles Circulating, veh/h	462	373	593	619
Vehicles Exiting, veh/h	582	657	414	485
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.1	7.6	7.4	7.5
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.470	0.530	0.471	0.529	0.469	0.531	0.471	0.529
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1350	1420	1350	1420	1350	1420	1350	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	256	289	344	387	205	232	200	225
Cap Entry Lane, veh/h	883	959	958	1034	782	858	764	839
Entry HV Adj Factor	0.982	0.981	0.979	0.982	0.982	0.978	0.980	0.982
Flow Entry, veh/h	251	284	337	380	201	227	196	221
Cap Entry, veh/h	867	941	938	1015	768	839	748	824
V/C Ratio	0.290	0.301	0.359	0.374	0.262	0.270	0.262	0.268
Control Delay, s/veh	7.3	7.0	7.8	7.5	7.7	7.2	7.8	7.3
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	1	1	2	2	1	1	1	1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	150			150	0	0
Storage Lanes	1			1	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.995	
Flt Protected	0.950				0.954	
Satd. Flow (prot)	1770	3539	3539	1583	1768	0
Flt Permitted	0.950				0.954	
Satd. Flow (perm)	1770	3539	3539	1583	1768	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		350	935		1177	
Travel Time (s)		8.0	21.3		26.8	

Intersection Summary	
Area Type:	Other

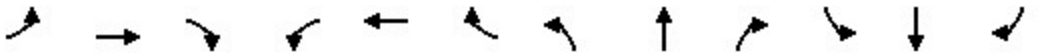
Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	657	691	131	114	5
Future Vol, veh/h	8	657	691	131	114	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	714	751	142	124	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	893	0	-	0	1126	376
Stage 1	-	-	-	-	751	-
Stage 2	-	-	-	-	374	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	755	-	-	-	199	622
Stage 1	-	-	-	-	427	-
Stage 2	-	-	-	-	665	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	755	-	-	-	196	622
Mov Cap-2 Maneuver	-	-	-	-	196	-
Stage 1	-	-	-	-	422	-
Stage 2	-	-	-	-	665	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.12	0	49.86
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	755	-	-	-	202
HCM Lane V/C Ratio	0.012	-	-	-	0.639
HCM Control Delay (s/veh)	9.8	-	-	-	49.9
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	3.8



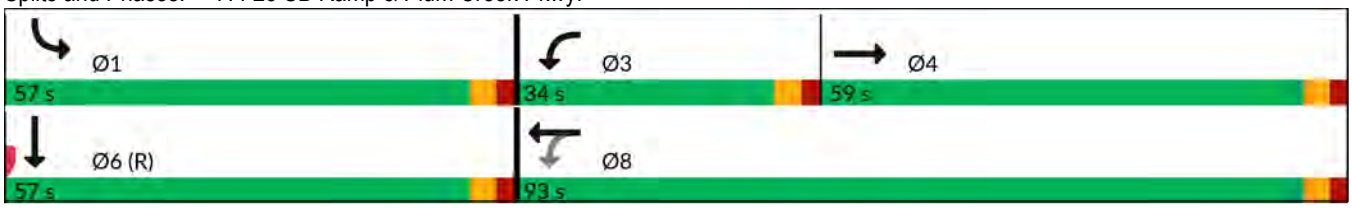
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	400		0	0		0	375		175	0		175
Storage Lanes	1		1	1		0	0		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt			0.850									0.850
Flt Protected				0.950						0.950	0.953	
Satd. Flow (prot)	0	5085	1583	1770	3539	0	0	0	0	3221	1615	1583
Flt Permitted				0.069						0.950	0.953	
Satd. Flow (perm)	0	5085	1583	129	3539	0	0	0	0	3221	1615	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			188									234
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		795			334			493			625	
Travel Time (s)		18.1			7.6			11.2			14.2	

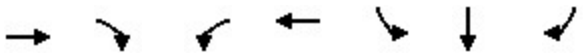
Intersection Summary	
Area Type:	Other

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	1378	360	334	967	1181	5	481
Future Volume (vph)	1378	360	334	967	1181	5	481
Turn Type	NA	Free	pm+pt	NA	Prot	NA	Free
Protected Phases	4		3	8	1	6	
Permitted Phases		Free	8				Free
Detector Phase	4		3	8	1	6	
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5		10.0	22.5	10.0	22.5	
Total Split (s)	59.0		34.0	93.0	57.0	57.0	
Total Split (%)	39.3%		22.7%	62.0%	38.0%	38.0%	
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0		5.0	5.0	5.0	5.0	
Lead/Lag	Lag		Lead				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	None		None	None	None	C-Max	
Act Effct Green (s)	52.7	150.0	86.0	86.0	54.0	54.0	150.0
Actuated g/C Ratio	0.35	1.00	0.57	0.57	0.36	0.36	1.00
v/c Ratio	0.84	0.25	0.95	0.52	0.74	0.74	0.33
Control Delay (s/veh)	49.7	0.4	69.8	17.9	47.2	51.7	0.6
Queue Delay	4.3	0.0	46.4	5.7	51.4	56.2	0.0
Total Delay (s/veh)	53.9	0.4	116.1	23.6	98.6	107.8	0.6
LOS	D	A	F	C	F	F	A
Approach Delay (s/veh)	42.8			47.4		72.5	
Approach LOS	D			D		E	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 0 (0%), Referenced to phase 2: and 6:SBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay (s/veh): 54.6	Intersection LOS: D
Intersection Capacity Utilization 120.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 7: I-25 SB Ramp & Plum Creek Pkwy.

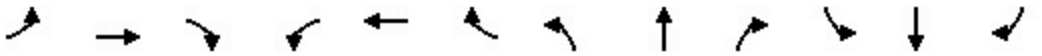




Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1498	391	363	1051	860	429	523
v/c Ratio	0.84	0.25	0.95	0.52	0.74	0.74	0.33
Control Delay (s/veh)	49.7	0.4	69.8	17.9	47.2	51.7	0.6
Queue Delay	4.3	0.0	46.4	5.7	51.4	56.2	0.0
Total Delay (s/veh)	53.9	0.4	116.1	23.6	98.6	107.8	0.6
Queue Length 50th (ft)	486	0	285	224	411	409	0
Queue Length 95th (ft)	548	0	m#347	m265	498	563	0
Internal Link Dist (ft)	715			254		545	
Turn Bay Length (ft)							175
Base Capacity (vph)	1830	1583	391	2076	1158	580	1583
Starvation Cap Reductn	0	0	73	955	0	0	0
Spillback Cap Reductn	259	0	0	0	500	250	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.25	1.14	0.94	1.31	1.30	0.33

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.



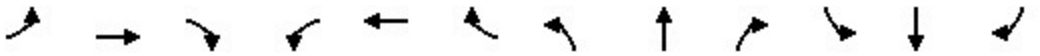
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1378	360	334	967	0	0	0	0	1181	5	481
Future Volume (veh/h)	0	1378	360	334	967	0	0	0	0	1181	5	481
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1498	0	363	1051	0				1288	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1719		383	1941	0				2068	0	
Arrive On Green	0.00	0.34	0.00	0.23	0.73	0.00				0.39	0.00	0.00
Sat Flow, veh/h	0	5274	1585	1781	3647	0				5344	0	1585
Grp Volume(v), veh/h	0	1498	0	363	1051	0				1288	0	0
Grp Sat Flow(s),veh/h/ln	0	1702	1585	1781	1777	0				1781	0	1585
Q Serve(g_s), s	0.0	41.3	0.0	24.1	20.0	0.0				29.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	41.3	0.0	24.1	20.0	0.0				29.2	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1719		383	1941	0				2068	0	
V/C Ratio(X)	0.00	0.87		0.95	0.54	0.00				0.62	0.00	
Avail Cap(c_a), veh/h	0	1838		414	2085	0				2068	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.32	0.32	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	46.7	0.0	40.3	12.0	0.0				37.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	4.7	0.0	13.7	0.1	0.0				0.6	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	18.2	0.0	14.4	6.6	0.0				12.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	51.3	0.0	54.1	12.1	0.0				37.7	0.0	0.0
LnGrp LOS		D		D	B					D		
Approach Vol, veh/h		1498			1414						1288	
Approach Delay, s/veh		51.3			22.9						37.7	
Approach LOS		D			C						D	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		31.4	55.5		63.1		86.9					
Change Period (Y+Rc), s		5.0	5.0		5.0		5.0					
Max Green Setting (Gmax), s		29.0	54.0		52.0		88.0					
Max Q Clear Time (g_c+I1), s		26.1	43.3		31.2		22.0					
Green Ext Time (p_c), s		0.4	7.2		5.6		10.4					

Intersection Summary	
HCM 7th Control Delay, s/veh	37.6
HCM 7th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



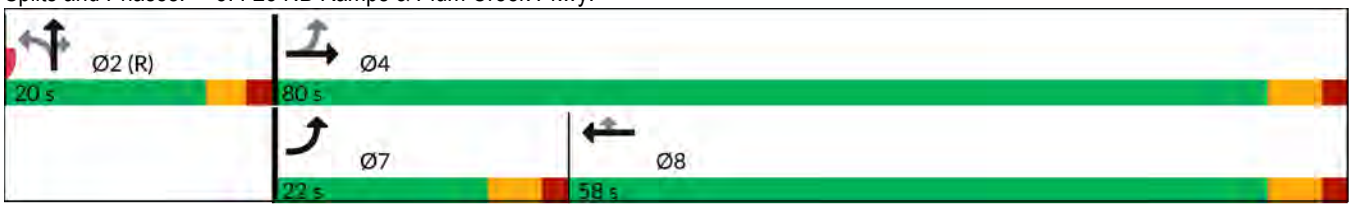
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		150	0		0
Storage Lanes	2		0	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	0.91	0.95	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.942	0.850		0.987	0.850			
Flt Protected	0.950						0.950	0.956				
Satd. Flow (prot)	3433	5085	0	0	3194	1441	1681	1599	1504	0	0	0
Flt Permitted	0.069						0.950	0.956				
Satd. Flow (perm)	249	5085	0	0	3194	1441	1681	1599	1504	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					183	531		4	98			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		469			542			502			457	
Travel Time (s)		10.7			12.3			11.4			10.4	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	590	1929	973	1350	343	1	149
Future Volume (vph)	590	1929	973	1350	343	1	149
Turn Type	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	8			2	
Permitted Phases	4			8	2		2
Detector Phase	7	4	8	8	2	2	2
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.0	80.0	58.0	58.0	20.0	20.0	20.0
Total Split (%)	22.0%	80.0%	58.0%	58.0%	20.0%	20.0%	20.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	74.0	74.0	52.0	52.0	15.0	15.0	15.0
Actuated g/C Ratio	0.74	0.74	0.52	0.52	0.15	0.15	0.15
v/c Ratio	0.92	0.56	0.99	0.79	0.79	0.79	0.47
Control Delay (s/veh)	48.2	6.4	41.7	12.7	63.7	64.0	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	48.2	6.4	41.7	12.7	63.7	64.0	20.4
LOS	D	A	D	B	E	E	C
Approach Delay (s/veh)		16.2	32.6			52.0	
Approach LOS		B	C			D	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay (s/veh): 26.7	Intersection LOS: C
Intersection Capacity Utilization 97.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 8: I-25 NB Ramps & Plum Creek Pkwy.





Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	641	2097	1733	792	198	192	146
v/c Ratio	0.92	0.56	0.99	0.79	0.79	0.79	0.47
Control Delay (s/veh)	48.2	6.4	41.7	12.7	63.7	64.0	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	48.2	6.4	41.7	12.7	63.7	64.0	20.4
Queue Length 50th (ft)	156	181	534	131	129	128	28
Queue Length 95th (ft)	#262	212	#742	345	#248	#254	91
Internal Link Dist (ft)		389	462			422	
Turn Bay Length (ft)							150
Base Capacity (vph)	693	3762	1748	1004	252	243	308
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.56	0.99	0.79	0.79	0.79	0.47

Intersection Summary

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

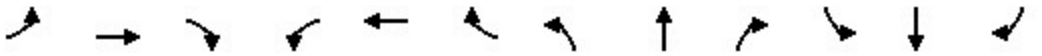
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	590	1929	0	0	973	1350	343	1	149	0	0	0
Future Volume (veh/h)	590	1929	0	0	973	1350	343	1	149	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	641	2097	0	0	1058	1467	424	0	108			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	697	3779	0	0	973	1648	534	0	238			
Arrive On Green	0.16	0.74	0.00	0.00	0.52	0.52	0.15	0.00	0.15			
Sat Flow, veh/h	3456	5274	0	0	1870	3170	3563	0	1585			
Grp Volume(v), veh/h	641	2097	0	0	1058	1467	424	0	108			
Grp Sat Flow(s),veh/h/ln	1728	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	14.0	18.1	0.0	0.0	52.0	41.3	11.5	0.0	6.2			
Cycle Q Clear(g_c), s	14.0	18.1	0.0	0.0	52.0	41.3	11.5	0.0	6.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	697	3779	0	0	973	1648	534	0	238			
V/C Ratio(X)	0.92	0.55	0.00	0.00	1.09	0.89	0.79	0.00	0.45			
Avail Cap(c_a), veh/h	697	3779	0	0	973	1648	534	0	238			
HCM Platoon Ratio	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	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	32.9	5.7	0.0	0.0	24.0	21.4	41.0	0.0	38.8			
Incr Delay (d2), s/veh	17.5	0.2	0.0	0.0	55.8	6.5	11.5	0.0	6.1			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.6	5.2	0.0	0.0	36.2	15.7	5.8	0.0	2.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.3	5.9	0.0	0.0	79.8	27.9	52.5	0.0	44.9			
LnGrp LOS	D	A			F	C	D		D			
Approach Vol, veh/h		2738			2525			532				
Approach Delay, s/veh		16.3			49.6			51.0				
Approach LOS		B			D			D				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		20.0		80.0			22.0	58.0				
Change Period (Y+Rc), s		5.0		6.0			6.0	6.0				
Max Green Setting (Gmax), s		15.0		74.0			16.0	52.0				
Max Q Clear Time (g_c+I1), s		13.5		20.1			16.0	54.0				
Green Ext Time (p_c), s		0.4		30.2			0.0	0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh		34.0										
HCM 7th LOS		C										

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		0	225		0	225		250	175		200
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.985				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	5009	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.085			0.093			0.460			0.638		
Satd. Flow (perm)	158	3539	1583	173	5009	0	1662	1863	1583	1188	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			227		18				100			100
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		629			907			941			491	
Travel Time (s)		14.3			20.6			21.4			11.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	354	1574	195	83	1245	691	175	74	221	132	338
Future Volume (vph)	354	1574	195	83	1245	691	175	74	221	132	338
Turn Type	pm+pt	NA	Free	pm+pt	NA	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	7	4		3	8	5	2	3	1	6	7
Permitted Phases	4		Free	8		2		2	6		6
Detector Phase	7	4		3	8	5	2	3	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	31.0		9.5	31.0	9.5	36.0	9.5	9.5	34.0	9.5
Total Split (s)	24.0	64.0		9.0	49.0	23.0	36.0	9.0	11.0	24.0	24.0
Total Split (%)	20.0%	53.3%		7.5%	40.8%	19.2%	30.0%	7.5%	9.2%	20.0%	20.0%
Yellow Time (s)	3.0	4.0		3.0	4.0	3.0	4.0	3.0	3.0	4.0	3.0
All-Red Time (s)	1.0	2.0		1.0	2.0	1.0	2.0	1.0	1.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	69.0	58.0	120.0	50.0	43.0	43.0	30.0	41.0	27.0	18.0	44.0
Actuated g/C Ratio	0.58	0.48	1.00	0.42	0.36	0.36	0.25	0.34	0.23	0.15	0.37
v/c Ratio	1.07	1.00	0.13	0.65	0.83	0.85	0.41	0.13	0.80	0.51	0.57
Control Delay (s/veh)	102.2	53.2	0.2	40.4	39.7	42.7	40.8	3.7	56.5	54.2	25.7
Queue Delay	0.0	36.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	102.2	89.8	0.2	40.4	39.7	42.7	40.8	3.7	56.5	54.2	25.7
LOS	F	F	A	D	D	D	D	A	E	D	C
Approach Delay (s/veh)		83.7			39.8		39.3			41.0	
Approach LOS		F			D		D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay (s/veh): 57.7	Intersection LOS: E
Intersection Capacity Utilization 91.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 9: Wilcox St. & Plum Creek Pkwy.



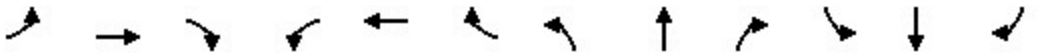


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	385	1711	212	90	1504	743	190	80	240	143	367
v/c Ratio	1.07	1.00	0.13	0.65	0.83	0.85	0.41	0.13	0.80	0.51	0.57
Control Delay (s/veh)	102.2	53.2	0.2	40.4	39.7	42.7	40.8	3.7	56.5	54.2	25.7
Queue Delay	0.0	36.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	102.2	89.8	0.2	40.4	39.7	42.7	40.8	3.7	56.5	54.2	25.7
Queue Length 50th (ft)	~278	~678	0	30	383	241	123	0	137	103	164
Queue Length 95th (ft)	#476	#865	0	#87	446	#313	195	23	#248	172	265
Internal Link Dist (ft)		549			827		861			411	
Turn Bay Length (ft)	325			225		225		250	175		200
Base Capacity (vph)	359	1710	1583	138	1806	875	465	606	301	279	643
Starvation Cap Reductn	0	220	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.07	1.15	0.13	0.65	0.83	0.85	0.41	0.13	0.80	0.51	0.57

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)	354	1574	195	83	1245	139	691	175	74	221	132	338
Future Volume (veh/h)	354	1574	195	83	1245	139	691	175	74	221	132	338
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	385	1711	0	90	1353	151	743	190	80	240	143	367
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.93	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	390	1718		135	1670	186	805	468	462	330	281	502
Arrive On Green	0.17	0.48	0.00	0.04	0.36	0.36	0.16	0.25	0.25	0.06	0.15	0.15
Sat Flow, veh/h	1781	3554	1585	1781	4661	520	3456	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	385	1711	0	90	988	516	743	190	80	240	143	367
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1777	1728	1870	1585	1781	1870	1585
Q Serve(g_s), s	19.5	57.6	0.0	3.8	31.5	31.5	19.0	10.2	4.5	7.0	8.4	18.0
Cycle Q Clear(g_c), s	19.5	57.6	0.0	3.8	31.5	31.5	19.0	10.2	4.5	7.0	8.4	18.0
Prop In Lane	1.00		1.00	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	390	1718		135	1220	637	805	468	462	330	281	502
V/C Ratio(X)	0.99	1.00		0.67	0.81	0.81	0.92	0.41	0.17	0.73	0.51	0.73
Avail Cap(c_a), veh/h	390	1718		135	1220	637	805	468	462	330	281	502
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)	0.23	0.23	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	30.9	0.0	30.5	34.8	34.8	37.4	37.6	31.7	44.7	46.9	36.5
Incr Delay (d2), s/veh	18.6	9.5	0.0	11.7	4.2	7.8	16.2	2.6	0.8	7.8	6.5	9.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	25.9	0.0	2.1	13.6	14.8	3.9	5.0	1.8	4.1	4.4	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	52.2	40.4	0.0	42.1	39.0	42.6	53.6	40.2	32.5	52.5	53.4	45.5
LnGrp LOS	D	D		D	D	D	D	D	C	D	D	D
Approach Vol, veh/h		2096			1594			1013			750	
Approach Delay, s/veh		42.6			40.3			49.4			49.3	
Approach LOS		D			D			D			D	

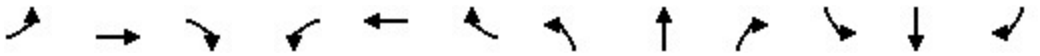
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	36.0	9.0	64.0	23.0	24.0	24.0	49.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	7.0	30.0	5.0	58.0	19.0	18.0	20.0	43.0
Max Q Clear Time (g_c+I1), s	9.0	12.2	5.8	59.6	21.0	20.0	21.5	33.5
Green Ext Time (p_c), s	0.0	1.2	0.0	0.0	0.0	0.0	0.0	6.4

Intersection Summary	
HCM 7th Control Delay, s/veh	44.1
HCM 7th LOS	D

Notes

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

Unsignalized Delay for [EBR] 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 Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.951			0.988			0.907			0.952	
Flt Protected		0.969			0.956			0.994			0.989	
Satd. Flow (prot)	0	1717	0	0	1759	0	0	3191	0	0	3332	0
Flt Permitted		0.969			0.956			0.994			0.989	
Satd. Flow (perm)	0	1717	0	0	1759	0	0	3191	0	0	3332	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		632			526			834			760	
Travel Time (s)		14.4			12.0			19.0			17.3	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	6.7
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	134	465	683	283
Demand Flow Rate, veh/h	137	474	697	289
Vehicles Circulating, veh/h	629	353	151	510
Vehicles Exiting, veh/h	170	495	615	317
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.1	8.6	5.8	5.8
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	R	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.382	0.618	0.471	0.529
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
A (Intercept)	1420	1420	1350	1420	1350	1420
B (Slope)	8.501e-4	8.501e-4	9.199e-4	8.501e-4	9.199e-4	8.501e-4
Entry Flow, veh/h	137	474	266	431	136	153
Cap Entry Lane, veh/h	832	1052	1175	1249	844	921
Entry HV Adj Factor	0.978	0.981	0.979	0.981	0.979	0.982
Flow Entry, veh/h	134	465	260	423	133	150
Cap Entry, veh/h	814	1032	1150	1226	827	904
V/C Ratio	0.165	0.451	0.226	0.345	0.161	0.166
Control Delay, s/veh	6.1	8.6	5.2	6.2	6.0	5.6
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	2	1	2	1	1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	250		250	250		0	250		0	250		150
Storage Lanes	1		1	2		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	3433	3539	1583	1770	3539	1583	3433	3539	1583
Flt Permitted	0.185			0.172			0.633			0.647		
Satd. Flow (perm)	345	3539	1583	622	3539	1583	1179	3539	1583	2338	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			127			564			226			225
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		881			681			475			543	
Travel Time (s)		20.0			15.5			10.8			12.3	

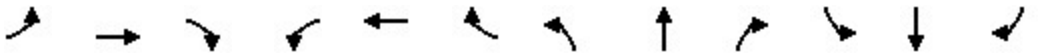
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	180	713	89	312	623	519	82	153	437	585	173	207
Future Volume (vph)	180	713	89	312	623	519	82	153	437	585	173	207
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		Free	2		Free	6		6
Detector Phase	7	4	4	3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	14.0	30.0	30.0	13.0	29.0		22.5	24.5		22.5	24.5	24.5
Total Split (%)	15.6%	33.3%	33.3%	14.4%	32.2%		25.0%	27.2%		25.0%	27.2%	27.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		Max	C-Max		Max	Max	Max
Act Effct Green (s)	33.4	24.1	24.1	31.8	23.3	90.0	39.4	20.0	90.0	39.4	20.0	20.0
Actuated g/C Ratio	0.37	0.27	0.27	0.35	0.26	1.00	0.44	0.22	1.00	0.44	0.22	0.22
v/c Ratio	0.71	0.82	0.19	0.70	0.74	0.36	0.14	0.21	0.30	0.51	0.24	0.43
Control Delay (s/veh)	33.4	38.7	3.4	25.7	36.0	0.6	13.8	29.4	0.5	16.6	29.7	7.0
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)	33.4	38.7	3.4	25.7	36.0	0.6	13.8	29.4	0.5	16.6	29.7	7.0
LOS	C	D	A	C	D	A	B	C	A	B	C	A
Approach Delay (s/veh)		34.6			21.1			8.7			16.9	
Approach LOS		C			C			A			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay (s/veh): 21.3	Intersection LOS: C
Intersection Capacity Utilization 64.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 11: Plum Creek Pkwy. & Prairie Hawk Dr.

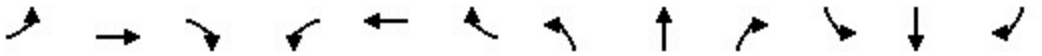




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	196	775	97	339	677	564	89	166	475	636	188	225
v/c Ratio	0.71	0.82	0.19	0.70	0.74	0.36	0.14	0.21	0.30	0.51	0.24	0.43
Control Delay (s/veh)	33.4	38.7	3.4	25.7	36.0	0.6	13.8	29.4	0.5	16.6	29.7	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	33.4	38.7	3.4	25.7	36.0	0.6	13.8	29.4	0.5	16.6	29.7	7.0
Queue Length 50th (ft)	70	212	0	61	182	0	27	40	0	115	46	0
Queue Length 95th (ft)	#137	281	22	90	244	0	53	68	0	157	76	57
Internal Link Dist (ft)		801			601			395			463	
Turn Bay Length (ft)	250		250	250			250			250		150
Base Capacity (vph)	279	1002	539	485	963	1583	643	786	1583	1259	786	526
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	0.70	0.77	0.18	0.70	0.70	0.36	0.14	0.21	0.30	0.51	0.24	0.43

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)	180	713	89	312	623	519	82	153	437	585	173	207
Future Volume (veh/h)	180	713	89	312	623	519	82	153	437	585	173	207
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	196	775	97	339	677	0	89	166	0	636	188	225
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	316	909	406	544	881		639	889		1356	889	397
Arrive On Green	0.10	0.26	0.26	0.09	0.25	0.00	0.20	0.25	0.00	0.20	0.25	0.25
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	196	775	97	339	677	0	89	166	0	636	188	225
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1777	1585	1728	1777	1585
Q Serve(g_s), s	7.2	18.7	4.4	6.4	15.9	0.0	2.6	3.3	0.0	11.2	3.8	11.2
Cycle Q Clear(g_c), s	7.2	18.7	4.4	6.4	15.9	0.0	2.6	3.3	0.0	11.2	3.8	11.2
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	316	909	406	544	881		639	889		1356	889	397
V/C Ratio(X)	0.62	0.85	0.24	0.62	0.77		0.14	0.19		0.47	0.21	0.57
Avail Cap(c_a), veh/h	322	1007	449	546	967		639	889		1356	889	397
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.3	31.9	26.5	24.0	31.5	0.0	14.4	26.5	0.0	16.8	26.7	29.5
Incr Delay (d2), s/veh	3.5	6.6	0.3	2.2	3.5	0.0	0.5	0.5	0.0	1.2	0.5	5.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	8.6	1.7	2.7	7.1	0.0	1.1	1.4	0.0	4.4	1.6	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	26.8	38.5	26.8	26.2	34.9	0.0	14.9	27.0	0.0	17.9	27.3	35.3
LnGrp LOS	C	D	C	C	C		B	C		B	C	D
Approach Vol, veh/h		1068			1016			255			1049	
Approach Delay, s/veh		35.3			32.0			22.8			23.3	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.5	27.0	13.0	27.5	22.5	27.0	13.7	26.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	20.0	8.5	25.5	18.0	20.0	9.5	24.5
Max Q Clear Time (g_c+I1), s	13.2	5.3	8.4	20.7	4.6	13.2	9.2	17.9
Green Ext Time (p_c), s	1.2	0.8	0.0	2.4	0.1	1.1	0.0	2.5

Intersection Summary	
HCM 7th Control Delay, s/veh	29.7
HCM 7th LOS	C

Notes

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

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



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	150	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Ped Bike Factor						
Frt		0.865		0.850		
Flt Protected					0.950	
Satd. Flow (prot)	0	1611	3539	1583	1770	3539
Flt Permitted					0.950	
Satd. Flow (perm)	0	1611	3539	1583	1770	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	1179		543			834
Travel Time (s)	26.8		12.3			19.0

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	88	786	69	69	964
Future Vol, veh/h	0	88	786	69	69	964
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	Free	-	None
Storage Length	-	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	96	854	75	75	1048

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	427	0	-	854	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	576	-	0	781	-
Stage 1	0	-	-	0	-	-
Stage 2	0	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	576	-	-	781	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	12.49	0	0.67
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	WBLn1	SBL	SBT
Capacity (veh/h)	-	576	781	-
HCM Lane V/C Ratio	-	0.166	0.096	-
HCM Control Delay (s/veh)	-	12.5	10.1	-
HCM Lane LOS	-	B	B	-
HCM 95th %tile Q(veh)	-	0.6	0.3	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	100	100			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.931	
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	1863	1863	1734	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1863	1734	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	367			976	429	
Travel Time (s)	8.3			22.2	13.2	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	57	0	0	74	53	55
Future Vol, veh/h	57	0	0	74	53	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	62	0	0	80	58	60

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	168	88	117	0	-	0
Stage 1	88	-	-	-	-	-
Stage 2	80	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	822	971	1471	-	-	-
Stage 1	936	-	-	-	-	-
Stage 2	943	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	822	971	1471	-	-	-
Mov Cap-2 Maneuver	822	-	-	-	-	-
Stage 1	936	-	-	-	-	-
Stage 2	943	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.73	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1471	-	822	-	-	-
HCM Lane V/C Ratio	-	-	0.075	-	-	-
HCM Control Delay (s/veh)	0	-	9.7	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	100	0	100			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.893	
Flt Protected	0.950					
Satd. Flow (prot)	1770	1863	1863	1863	1663	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1863	1863	1863	1663	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	369			602	976	
Travel Time (s)	8.4			13.7	22.2	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	66	0	0	8	11	42
Future Vol, veh/h	66	0	0	8	11	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	72	0	0	9	12	46

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	43	35	58	0	-	0
Stage 1	35	-	-	-	-	-
Stage 2	9	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	967	1038	1547	-	-	-
Stage 1	988	-	-	-	-	-
Stage 2	1014	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	967	1038	1547	-	-	-
Mov Cap-2 Maneuver	967	-	-	-	-	-
Stage 1	988	-	-	-	-	-
Stage 2	1014	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.02	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1547	-	967	-	-	-
HCM Lane V/C Ratio	-	-	0.074	-	-	-
HCM Control Delay (s/veh)	0	-	9	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	100	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.865	
Flt Protected	0.950			0.950		
Satd. Flow (prot)	1770	1583	0	1770	1611	0
Flt Permitted	0.950			0.950		
Satd. Flow (perm)	1770	1583	0	1770	1611	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			315	249	
Travel Time (s)	12.0			7.2	5.7	

Intersection Summary	
Area Type:	Other

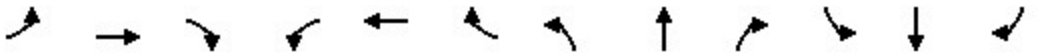
Intersection	
Int Delay, s/veh	12.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	162	286	315	0	0	113
Future Vol, veh/h	162	286	315	0	0	113
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	176	311	342	0	0	123

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	746	61	123	0	-	0
Stage 1	61	-	-	-	-	-
Stage 2	685	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	381	1004	1464	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	501	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	292	1004	1464	-	-	-
Mov Cap-2 Maneuver	292	-	-	-	-	-
Stage 1	736	-	-	-	-	-
Stage 2	501	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	18.96	8.21	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1464	-	292	1004	-	-
HCM Lane V/C Ratio	0.234	-	0.603	0.31	-	-
HCM Control Delay (s/veh)	8.2	0	34.5	10.2	-	-
HCM Lane LOS	A	A	D	B	-	-
HCM 95th %tile Q(veh)	0.9	-	3.6	1.3	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.970			0.975			0.903			0.877	
Flt Protected		0.970			0.974			0.986			0.996	
Satd. Flow (prot)	0	1753	0	0	1769	0	0	1659	0	0	1627	0
Flt Permitted		0.970			0.974			0.986			0.996	
Satd. Flow (perm)	0	1753	0	0	1769	0	0	1659	0	0	1627	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		513			367			973			210	
Travel Time (s)		11.7			8.3			22.1			4.8	

Intersection Summary	
Area Type:	Other

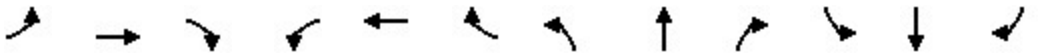
Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	56	15	20	29	16	10	13	0	33	3	0	29
Future Vol, veh/h	56	15	20	29	16	10	13	0	33	3	0	29
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	61	16	22	32	17	11	14	0	36	3	0	32

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	28	0	0	38	0	0	229	240	27	224	246	23
Stage 1	-	-	-	-	-	-	149	149	-	86	86	-
Stage 2	-	-	-	-	-	-	80	91	-	138	160	-
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	1585	-	-	1572	-	-	726	661	1048	732	657	1054
Stage 1	-	-	-	-	-	-	854	774	-	922	824	-
Stage 2	-	-	-	-	-	-	928	819	-	865	766	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1585	-	-	1572	-	-	663	622	1048	665	618	1054
Mov Cap-2 Maneuver	-	-	-	-	-	-	663	622	-	665	618	-
Stage 1	-	-	-	-	-	-	820	744	-	903	807	-
Stage 2	-	-	-	-	-	-	882	803	-	803	736	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	4.53	3.87	9.23	8.73
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	900	994	-	-	881	-	-	999
HCM Lane V/C Ratio	0.056	0.038	-	-	0.02	-	-	0.035
HCM Control Delay (s/veh)	9.2	7.4	0	-	7.3	0	-	8.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.869			0.935			0.973			0.887	
Flt Protected	0.950			0.950				0.964			0.994	
Satd. Flow (prot)	1770	1619	0	1770	1742	0	0	1747	0	0	1642	0
Flt Permitted	0.950			0.950				0.964			0.994	
Satd. Flow (perm)	1770	1619	0	1770	1742	0	0	1747	0	0	1642	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		525			369			345			973	
Travel Time (s)		11.9			8.4			7.8			22.1	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	8.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	113	20	138	16	19	15	137	9	37	19	8	144
Future Vol, veh/h	113	20	138	16	19	15	137	9	37	19	8	144
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	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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	123	22	150	17	21	16	149	10	40	21	9	157

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	37	0	0	172	0	0	402	414	97	336	481	29
Stage 1	-	-	-	-	-	-	342	342	-	64	64	-
Stage 2	-	-	-	-	-	-	60	72	-	272	417	-
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	1574	-	-	1405	-	-	559	529	960	618	485	1046
Stage 1	-	-	-	-	-	-	673	638	-	947	842	-
Stage 2	-	-	-	-	-	-	952	835	-	734	591	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1574	-	-	1405	-	-	425	481	960	529	441	1046
Mov Cap-2 Maneuver	-	-	-	-	-	-	425	481	-	529	441	-
Stage 1	-	-	-	-	-	-	620	588	-	936	831	-
Stage 2	-	-	-	-	-	-	791	825	-	637	545	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	3.12	2.43	17.62	10.1
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	482	1574	-	-	1405	-	-	892
HCM Lane V/C Ratio	0.413	0.078	-	-	0.012	-	-	0.208
HCM Control Delay (s/veh)	17.6	7.5	-	-	7.6	-	-	10.1
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	2	0.3	-	-	0	-	-	0.8



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.974	
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1863	1814	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1863	1814	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	343			429	418	
Travel Time (s)	7.8			9.8	9.5	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	0	0	131	108	26
Future Vol, veh/h	13	0	0	131	108	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	0	0	142	117	28

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	274	132	146	0	-	0
Stage 1	132	-	-	-	-	-
Stage 2	142	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	716	918	1436	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	885	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	716	918	1436	-	-	-
Mov Cap-2 Maneuver	716	-	-	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	885	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.13	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1436	-	716	-	-
HCM Lane V/C Ratio	-	-	0.02	-	-
HCM Control Delay (s/veh)	0	-	10.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

APPENDIX “D”

INTERNAL TRIP CAPTURE WORKSHEETS

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	The Brickyard (HKS Project No. 200726)	**Organization:**	HKS
Project Location:	Castle Rock, Colorado	**Performed By:**	MEK
Scenario Description:	Build-Out	**Date:**	6/20/2025
Analysis Year:	2027 & 2045	**Checked By:**	MEK
Analysis Period:	**AM Street Peak Hour**	**Date:**	6/20/2025

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	710, 720	56	KSF	135	111	24
Retail	822,850	23.5	KSF	69	41	28
Restaurant	932	23	KSF	219	120	99
Cinema/Entertainment	437	64	Lanes	95	90	5
Residential	221	384	DU	157	36	121
Hotel	310	123	Rooms	54	30	24
All Other Land Uses[2]	495	145	KSF	277	183	94
				1,006	611	395

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.00	0%	0%	1.00	0%	0%
Retail	1.00	0%	0%	1.00	0%	0%
Restaurant	1.00	0%	0%	1.00	0%	0%
Cinema/Entertainment	1.00	0%	0%	1.00	0%	0%
Residential	1.00	0%	0%	1.00	0%	0%
Hotel	1.00	0%	0%	1.00	0%	0%
All Other Land Uses[2]	1.00	0%	0%	1.00	0%	0%

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		7	15	0	0	0
Retail	4		4	0	1	0
Restaurant	16	3		0	2	1
Cinema/Entertainment	0	0	0		0	0
Residential	2	1	24	0		0
Hotel	3	2	2	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	1,006	611	395
Internal Capture Percentage	17%	14%	22%
External Vehicle-Trips[5]	832	524	308
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	23%	92%
Retail	32%	32%
Restaurant	38%	22%
Cinema/Entertainment	0%	0%
Residential	8%	22%
Hotel	3%	29%

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	The Brickyard (HKS Project No. 200726)
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	111	111	1.00	24	24
Retail	1.00	41	41	1.00	28	28
Restaurant	1.00	120	120	1.00	99	99
Cinema/Entertainment	1.00	90	90	1.00	5	5
Residential	1.00	36	36	1.00	121	121
Hotel	1.00	30	30	1.00	24	24

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		7	15	0	0	0
Retail	8		4	0	4	0
Restaurant	31	14		0	4	3
Cinema/Entertainment	0	0	0		0	0
Residential	2	1	24	0		0
Hotel	18	3	2	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		13	28	0	0	0
Retail	4		60	0	1	0
Restaurant	16	3		0	2	1
Cinema/Entertainment	0	0	0		0	0
Residential	3	7	24	0		0
Hotel	3	2	7	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	25	86	111	86	0	0
Retail	13	28	41	28	0	0
Restaurant	45	75	120	75	0	0
Cinema/Entertainment	0	90	90	90	0	0
Residential	3	33	36	33	0	0
Hotel	1	29	30	29	0	0
All Other Land Uses[3]	0	183	183	183	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	22	2	24	2	0	0
Retail	9	19	28	19	0	0
Restaurant	22	77	99	77	0	0
Cinema/Entertainment	0	5	5	5	0	0
Residential	27	94	121	94	0	0
Hotel	7	17	24	17	0	0
All Other Land Uses[3]	0	94	94	94	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	The Brickyard (HKS Project No. 200726)	**Organization:**	HKS
Project Location:	Castle Rock, Colorado	**Performed By:**	MEK
Scenario Description:	Build-Out	**Date:**	6/20/2025
Analysis Year:	2027 & 2045	**Checked By:**	MEK
Analysis Period:	**PM Street Peak Hour**	**Date:**	6/20/2025

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	710, 720	56	KSF	176	46	130
Retail	822,850	23.5	KSF	235	118	117
Restaurant	932	23	KSF	207	126	81
Cinema/Entertainment	437	64	Lanes	133	86	47
Residential	221	384	DU	150	92	58
Hotel	310	123	Rooms	63	32	31
All Other Land Uses[2]	495	145	KSF	345	162	183
				1,309	662	647

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.00	0%	0%	1.00	0%	0%
Retail	1.00	0%	0%	1.00	0%	0%
Restaurant	1.00	0%	0%	1.00	0%	0%
Cinema/Entertainment	1.00	0%	0%	1.00	0%	0%
Residential	1.00	0%	0%	1.00	0%	0%
Hotel	1.00	0%	0%	1.00	0%	0%
All Other Land Uses[2]	1.00	0%	0%	1.00	0%	0%

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		9	3	0	3	0
Retail	2		34	5	30	5
Restaurant	2	33		6	15	6
Cinema/Entertainment	1	5	4		4	0
Residential	2	12	12	0		2
Hotel	0	2	6	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	1,309	662	647
Internal Capture Percentage	31%	31%	31%
External Vehicle-Trips[5]	903	459	444
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	15%	12%
Retail	52%	65%
Restaurant	47%	77%
Cinema/Entertainment	13%	30%
Residential	57%	48%
Hotel	41%	26%

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	The Brickyard (HKS Project No. 200726)
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	46	46	1.00	130	130
Retail	1.00	118	118	1.00	117	117
Restaurant	1.00	126	126	1.00	81	81
Cinema/Entertainment	1.00	86	86	1.00	47	47
Residential	1.00	92	92	1.00	58	58
Hotel	1.00	32	32	1.00	31	31

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		26	5	0	3	0
Retail	2		34	5	30	6
Restaurant	2	33		6	15	6
Cinema/Entertainment	1	10	15		4	1
Residential	2	24	12	0		2
Hotel	0	5	21	0	1	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		9	3	1	4	0
Retail	14		37	22	42	5
Restaurant	14	59		28	15	23
Cinema/Entertainment	3	5	4		4	0
Residential	26	12	18	0		4
Hotel	0	2	6	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	7	39	46	39	0	0
Retail	61	57	118	57	0	0
Restaurant	59	67	126	67	0	0
Cinema/Entertainment	11	75	86	75	0	0
Residential	52	40	92	40	0	0
Hotel	13	19	32	19	0	0
All Other Land Uses[3]	0	162	162	162	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	15	115	130	115	0	0
Retail	76	41	117	41	0	0
Restaurant	62	19	81	19	0	0
Cinema/Entertainment	14	33	47	33	0	0
Residential	28	30	58	30	0	0
Hotel	8	23	31	23	0	0
All Other Land Uses[3]	0	183	183	183	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

Table 7.1a Adjusted Internal Trip Capture Rates for Trip Origins within a Multi-Use Development			
Land Use Pairs		Weekday	
		AM Peak Hour	PM Peak Hour
From OFFICE	To Office	0.0%	0.0%
	To Retail	28.0%	20.0%
	To Restaurant	63.0%	4.0%
	To Cinema/Entertainment	0.0%	0.0%
	To Residential	1.0%	2.0%
	To Hotel	0.0%	0.0%
From RETAIL	To Office	29.0%	2.0%
	To Retail	0.0%	0.0%
	To Restaurant	13.0%	29.0%
	To Cinema/Entertainment	0.0%	4.0%
	To Residential	14.0%	26.0%
	To Hotel	0.0%	5.0%
From RESTAURANT	To Office	31.0%	3.0%
	To Retail	14.0%	41.0%
	To Restaurant	0.0%	0.0%
	To Cinema/Entertainment	0.0%	8.0%
	To Residential	4.0%	18.0%
	To Hotel	3.0%	7.0%
From CINEMA/ENTERTAINMENT	To Office	0.0%	2.0%
	To Retail	0.0%	21.0%
	To Restaurant	0.0%	31.0%
	To Cinema/Entertainment	0.0%	0.0%
	To Residential	0.0%	8.0%
	To Hotel	0.0%	2.0%
From RESIDENTIAL	To Office	2.0%	4.0%
	To Retail	1.0%	42.0%
	To Restaurant	20.0%	21.0%
	To Cinema/Entertainment	0.0%	0.0%
	To Residential	0.0%	0.0%
	To Hotel	0.0%	3.0%
From HOTEL	To Office	75.0%	0.0%
	To Retail	14.0%	16.0%
	To Restaurant	9.0%	68.0%
	To Cinema/Entertainment	0.0%	0.0%
	To Residential	0.0%	2.0%
	To Hotel	0.0%	0.0%

Table 7.2a Adjusted Internal Trip Capture Rates for Trip Destinations within a Multi-Use Development			
Land Use Pairs		Weekday	
		AM Peak Hour	PM Peak Hour
To OFFICE	From Office	0.0%	0.0%
	From Retail	4.0%	31.0%
	From Restaurant	14.0%	30.0%
	From Cinema/Entertainment	0.0%	6.0%
	From Residential	3.0%	57.0%
	From Hotel	3.0%	0.0%
To RETAIL	From Office	32.0%	8.0%
	From Retail	0.0%	0.0%
	From Restaurant	8.0%	50.0%
	From Cinema/Entertainment	0.0%	4.0%
	From Residential	17.0%	10.0%
	From Hotel	4.0%	2.0%
To RESTAURANT	From Office	23.0%	2.0%
	From Retail	50.0%	29.0%
	From Restaurant	0.0%	0.0%
	From Cinema/Entertainment	0.0%	3.0%
	From Residential	20.0%	14.0%
	From Hotel	6.0%	5.0%
To CINEMA/ENTERTAINMENT	From Office	0.0%	1.0%
	From Retail	0.0%	26.0%
	From Restaurant	0.0%	32.0%
	From Cinema/Entertainment	0.0%	0.0%
	From Residential	0.0%	0.0%
	From Hotel	0.0%	0.0%
To RESIDENTIAL	From Office	0.0%	4.0%
	From Retail	2.0%	46.0%
	From Restaurant	5.0%	16.0%
	From Cinema/Entertainment	0.0%	4.0%
	From Residential	0.0%	0.0%
	From Hotel	0.0%	0.0%
To HOTEL	From Office	0.0%	0.0%
	From Retail	0.0%	17.0%
	From Restaurant	4.0%	71.0%
	From Cinema/Entertainment	0.0%	1.0%
	From Residential	0.0%	12.0%
	From Hotel	0.0%	0.0%

Neighborhood Meeting #1 Summary

Application: The Brickyard Site Development Plan
Property Owner: Confluence Companies
Meeting #1
Date/Time: Wednesday, June 12, 2024, 5 pm (Adjourned at 5:35 pm)
Meeting Location: Riverwalk South, 115 N. Wilcox Street, Craft Conference Room, Suite 200
Councilmember District: Desiree LaFleur

Applicant's Proposal:

Confluence Companies is proposing a Site Development Plan for The Brickyard Planned Development (PD), sans the Town of Castle Rock Sports Center. The Brickyard PD is approximately 31 acres, of which 10.36 acres is being dedicated to the Town for construction of the Sports Center. The site will be developed as mixed use with for-lease townhomes and apartments, retail, office, restaurant, hotel, and conference space.

Attendees – 8 people attended the meeting, besides the applicant and Town staff.

Applicant Representatives:
Tony DeSimone, Confluence Companies
Tucker Bennett, Confluence Companies

Public Attendees:
In-person Attendees:
Trish Riber, Black Hills Energy
Manfred Wills, resident
Karen Johnson, resident
Hector Dela Virgen, resident

Online/Phone Attendees:
Glen Burmeister
Jill Grabill
"Erin's Phone"
Lizzie C.

Town Staff Attendees:
Sandy Vossler, Senior Planner, Town of Castle Rock

Presentation Description

Applicant's Presentation:
Tucker Bennett presented a PowerPoint that oriented the attendees to the site with an aerial map. A conceptual site plan was shown and the discussion highlighted the two points of access from existing Prairie Hawk Drive and the partial extension of Future Prairie Hawk Drive from the western boundary of The Brickyard, through Miller's Landing to Plum Creek Parkway, as well as the trail and Industrial Tributary improvement. Internal street where shown representing the circulation onsite. The location and uses of the proposed structures were pointed out and discussed, including the 125 room hotel, the Great Hall (retail and conference center), the mixed-

use buildings and the residential apartment and townhouse development. The Sports Center was pointed out, however, the applicant clarified that the it is not included in the Brickyard SDP. The Town will submit the Sports Center through a separate application. Site renderings and building concept drawings were shown.

Questions Presented to Applicant:

Q: What is the proposed residential density?

A: The site plan proposes 530 dwelling units, 25 of which will be townhomes. The Planned Development Plan and Zoning Regulations propose a maximum of 583 dwelling units. All units will be for lease.

Q: What trail improvements are planned?

A: Confluence will construction the trail paralleling the Industrial Tributary from the boundary of Miller's Landing to, and including, the culvert improvement at the existing Prairie Hawk Drive. The Town is responsible for the continuing the trail from the existing Prairie Hawk Drive, under the railroad, and east to connect to Downtown.

Q: Will the connection through Miller's Landing be made and in which phase?

A: The site will be accessed from two points off of the existing Prairie Hawk Drive, and to the west, the extension will be made to Plum Creek Parkway, through Miller's Landing. These connections will be made in Phase I of the project.

Q: How will the internal traffic circulation work?

A: The applicant pointed out the two access roads, and how they loop through the interior of the site, connecting to the stub road that will extend into Miller's Landing and then to Plum Creek Parkway. He pointed out the north/south road and indicated all of the internal roads will be completed in Phase I.

Q: What is the extent of the improvements to the existing Prairie Hawk Drive?

A: The applicant explained that Prairie Hawk Drive will be improved from Wolfensberger Road to the southern extent of the Brickyard frontage.

Q: Questions were asked about the sports center; what were the dates for construction, did the building front the street, what is the funding mechanism?

A: The applicant and staff explained that the Brickyard Site Development Plan does not extend to the sports center, and that the Town is designing that site separately.

Q: What is the schedule for starting construction?

A: The applicant presented a slide depicting the schedule for the project. They expect to be through the rezoning and site plan approvals by October, with Phase I completed by Summer 2027. Phase II is expected to be completed by Spring 2029 and final build out by 2030.

There were no further questions and the meeting ended at approximately 5:35 pm

Neighborhood Meeting Summary

Application: The Brickyard Site Development Plan and Zoning Regulations
Meeting #2
Property Owner: Confluence Companies
Date/Time: Wednesday, November 20, 2024, 5 pm (Adjourned at 5:55 pm)
Meeting Location: Riverwalk South, 115 N. Wilcox Street, Craft Conference Room, Suite 200
Councilmember District: Desiree LaFleur

Applicant's Proposal:

Confluence Companies has submitted a rezoning application for The Brickyard. This was the fourth neighborhood meeting for the proposed PD Plan and Zoning Regulations. The first neighborhood meeting was held October 26, 2021, the second was on December 13, 2022, the third was combined with the initial presentation of the Site Development Plan on June 12, 2024.

The site is approximately 31 acres and is located at 401 Prairie Hawk Drive, north of Plum Creek Parkway and south of Topeka Way. The Planned Development Plan and Zoning Regulations propose a mixed use development with a maximum of 583 multi-family dwelling units, 92,000 square feet (sf) of non-residential uses (office, retail, restaurant), a 99,000 sf, 125 room hotel with a 250-300 seat capacity conference center and an outdoor performance venue. A 145,000 sf Town recreation center is planned on 10.36 acres of public land. Associated roadway improvements include a connection from Prairie Hawk Drive to Plum Creek Parkway, and widening and reconstruction of Prairie Hawk Drive to Wolfensberger Road.

Concurrently, Confluence Companies is proposing a Site Development Plan for The Brickyard Planned Development (PD), sans the Town of Castle Rock Sports Center. This was the second neighborhood meeting held on for the proposed Site Development Plan. The first meeting was held on June 12, 2024.

The site plan includes 530 multifamily units, of which 24 will be townhomes. The total non-residential square footage is approximately 176,000 sf and uses include a 125 room hotel with conference space and outdoor performance venue, office, retail, and restaurant. Parking will be based on joint use of required parking spaces as allowed by the Municipal Code.

Attendees – 5 people attended the meeting, besides the applicant and Town staff.

Applicant Representatives:
Tucker Bennett, Confluence Companies
Dan Craine, Craine Architecture, Inc.
Brad Gassman, Craine Architecture, Inc.
Public Attendees:
In-person Attendees:
Manfred Wills, resident
Mark Aycock, resident

Mike Pedersen, resident
Sandy Halmstran, resident

Online/Phone Attendees:
Glen Burmeister, resident

Town Staff Attendees:
Sandy Vossler, Senior Planner, Town of Castle Rock

Presentation Description

Applicant's Presentation:
Tucker Bennett presented a PowerPoint that oriented the attendees to the site with an aerial map and included conceptual renderings of the buildings. A conceptual site plan was shown and the discussion highlighted the two points of access from existing Prairie Hawk Drive and the partial extension of the roadway from the western boundary of The Brickyard, through Miller's Landing to Plum Creek Parkway, as well as the trail and Industrial Tributary improvements. Internal street layout was shown illustrating the onsite circulation. The location and uses of the proposed structures were pointed out and discussed, including the 125 room hotel, the Great Hall (retail, office and Market Place uses), the mixed-use buildings and the residential apartment/condos and townhouse development. The Sports Center was pointed out, however, the applicant clarified that the it is not included in the Brickyard SDP. The Town will submit the Sports Center through a separate application. Site renderings and building concept drawings were shown.

Questions and Comments:

Q: Why is another recreation center planned so close to the MAC?

A: The applicant explained that the Sports Center is planned to be used for destination tournaments and will complement the MAC. Staff added that the Sports Center parking can also be used as overflow parking for events at the MAC amphitheater.

Q: Is there an amphitheater planned at the Brickyard?

A: The applicant pointed out The Great Lawn associated with the hotel development and indicated it can be used as a gathering area and for smaller outdoor events.

Q: Castle Rock has a parking problem downtown, especially on Saturdays. What is the plan for parking at the Brickyard?

A: Parking throughout the PD will be calculated on joint use of parking requirements that analyzes the uses, densities, square footages and hour of operation. The applicant pointed out the surface parking, location of parking structures and planned parking on Prairie Hawk Drive.

Q: A follow-up concern about Prairie Hawk Drive parking was expressed by the resident living at 300 Prairie Hawk Drive. He's concerned with the impact of head-in parking on Prairie Hawk Drive facing his property and the ability enter Prairie Hawk Drive with parking

on either side of the driveway shared with the old depot? The residents on Prairie Hawk Drive generally objected to the increased traffic and parking.

A: Screening and site distance easements will be included in the site plan. Other improvements will include curb, gutter, sidewalk, street lights and bike lanes. In addition, the driveway to the depot and 300 Prairie Hawk will be improved.

Q: In addition to widening and improvements to Prairie Hawk Drive, what other road improvements are planned?

A: The applicant explained that in addition to the two access roads into the development from Prairie Hawk Drive, a roadway will be extended from the west side of the PD, near the hotel, through Miller's Landing and intersecting with Plum Creek Parkway.

Q: What is the proposed housing breakdown?

A: The applicant indicated that approximately 24 townhomes are planned, along with approximately 506 apartment or condo units. The locations were pointed out on the site plan.

Q: What are the building heights? Concerns of obstructed views were raised by the residents living along Prairie Hawk Drive, and those living in Encore downtown.

A: The PD Plan proposes maximum building heights that vary by planning area, from 65' to 90', similar to the adjacent Miller's Landing IO PD to the west and Castle Meadows IO PD to the south. The lower structures are planned adjacent to Prairie Hawk Drive. The applicant pointed out the location of the 3 and 5-story multifamily buildings along Prairie Hawk Drive and the 6-story hotel. The tallest structure is the hotel at approximately 76 feet.

Q: Will there be bike parking within the PD?

A: Yes, bicycle parking racks will be provided throughout the development, and at the trail entry points.

Q: Will there be lighting and signs on the buildings?

A: Yes, all lighting on the site will meet the Town's illumination code, which is based on Dark Skies. Signs on the site must meet the PD Sign Regulations and the Town's sign code.

Q: Concerns were raised about the RR noise and the possibility of a quiet zone?

A: A quiet zone is not proposed

There were no further questions and the meeting ended at approximately 5:55 pm.

Neighborhood Meeting Summary

Application: The Brickyard Site Development Plan
Meeting #3
Property Owner: Confluence Companies
Date/Time: Wednesday, September 17, 2025 6 pm (Adjourned at 7:15 pm)
Meeting Location: Riverwalk South, 115 N. Wilcox Street, Craft Conference Room, Suite 200
Councilmember District: Kevin Bracken

Project Introduction

This was third and final neighborhood meeting held on the proposed Brickyard Site Development Plan. The first neighborhood meeting was held June 12, 2024, attended by 8 members of the public, and the second meeting was held November 20, 2024, attended by 5 members of the public. Tucker Bennett, Confluence Companies, presented the site plan as it will be introduced at the Planning Commission public hearing on September 25, 2025.

Attendees – 4 people attended the meeting in-person, there were no attendees online.

Applicant Representatives:
Tucker Bennett, Confluence Companies
Tony DiSimone, Confluence Companies

Public Attendees:
In-person Attendees:
Lauren Barnes, resident
Nancy Clary, resident
Manfred Wills and son, residents [arrived at 6:45 pm]

Town Staff Attendees:
Sandy Vossler, Senior Planner, Town of Castle Rock

Presentation Description

Applicant's Presentation:
Tucker Bennett, Confluence Companies, presented a PPT and oriented people to the site with an aerial map. The site plan was shown and discussed, as it will be introduced at the Planning Commission public hearing on September 25, 2025. The site plan includes 384 multifamily dwelling units and approximately 262,700 square feet of retail, office, restaurant and entertainment space. Mr. Bennett pointed out the primary changes to the site that include a reduction in dwelling units, the addition of a 68,000 square foot space for a proposed bowling alley/entertainment complex, and a future commercial pad. The access points were identified and the extension of Praxis Street to Plum Creek Parkway was detailed.

The location and uses of the proposed structures were pointed out and discussed, including the 123 room hotel, the Great Hall, the mixed-use buildings, the multifamily residential buildings and the surface parking and parking structures. The Sports Center was pointed out, however, the applicant clarified that it is not included in the Brickyard SDP.

Renderings were presented that depicted the architectural designs and materials and the open space area named Brickyard Square. This public gathering space will be used as an event venue for such programming as movie night, performances and ice skating in the winter.

Questions and Comments:

Q: How large is Brickyard Square?

A: The developer referenced the size of Festival Park in downtown as being of a similar size.

Q: Are there plans for public art?

A: Yes, the developer indicated they have some concepts and locations in mind and have been having conversations with an artist.

C: This is a nice project and it's very exciting?

A: Thank you.

Q: Are there opportunities for unique public experiences such as a listening room, speaker series, travel forums, performing arts venue, new, larger senior center, demonstration kitchens, arcades for youth, etc?

A: The developer provided details of the programming plan for the Brickyard Square, and flexible conference and activity spaces. Mr. Bennett asked for examples known around the region or country of the types of facilities suggested, and will be following up what those facilities provide, and soliciting potential interest in the Brickyard development.

Q: Why the reduction in number of units and why the length of time since the last meeting?

A: The developer explained that the plan and number of units has undergone a few redesigns to accommodate the addition of the potential bowling alley.

The meeting adjourned at approximately 7:15 pm.

Planning Commission
Agenda - Final

Chair Todd Warnke
Vice Chair Kevin McHugh
Carlos Salinas
Jeff Samuelson
Tom Martinez
Kari Stanley
Mitchell Sawin

Thursday, September 25, 2025 **6:00 PM** **Town Hall**
100 N. Wilcox Street
Castle Rock, CO 80104

**** ALL TIMES ARE APPROXIMATE ****

5:30 pm DINNER FOR BOARD MEMBERS

6:00 pm CALL TO ORDER / ROLL CALL

6:02 pm CERTIFICATION OF MEETING

6:05 pm APPROVAL OF MINUTES

PC 2025-023 **August 14, 2025 Planning Commission Meeting Minutes**

Attachments: August 14, 2025 Planning Commission Meeting Minutes

6:10 pm PUBLIC HEARING ITEMS

1. PC 2025-021 **Bella Mesa North Site Development Plan (293.21 Acres located northeast of the intersection of Mitchell Street and Mikelson Boulevard)**

Attachments: Staff Report
Attachment A: Vicinity Map ADA
Attachment B: SDP24-0040 SDP
Attachment C: Bella Mesa North Neighborhood Meeting Summaries
Attachment D: Public Comment

2. PC 2025-022 **The Brickyard Site Development Plan** (31.6 acres, 401 Prairie Hawk Drive)

Attachments: Staff Report
Attachment A: Vicinity Map
Attachment B: Site Dev Plan
Attachment C: Parking Study
Attachment D: TIA
Attachment E: NM Summaries

6:50 pm TOWN COUNCIL LIAISON UPDATE

6:55 PM DESIGN REVIEW BOARD UPDATE

7:00 pm COMMISSION ITEMS

Check for quorum for upcoming meetings

October 8, 2025
October 22, 2025

7:05 pm STAFF UPDATE/PLANNING COMMISSION DISCUSSION ITEMS

7:10pm ADJOURN

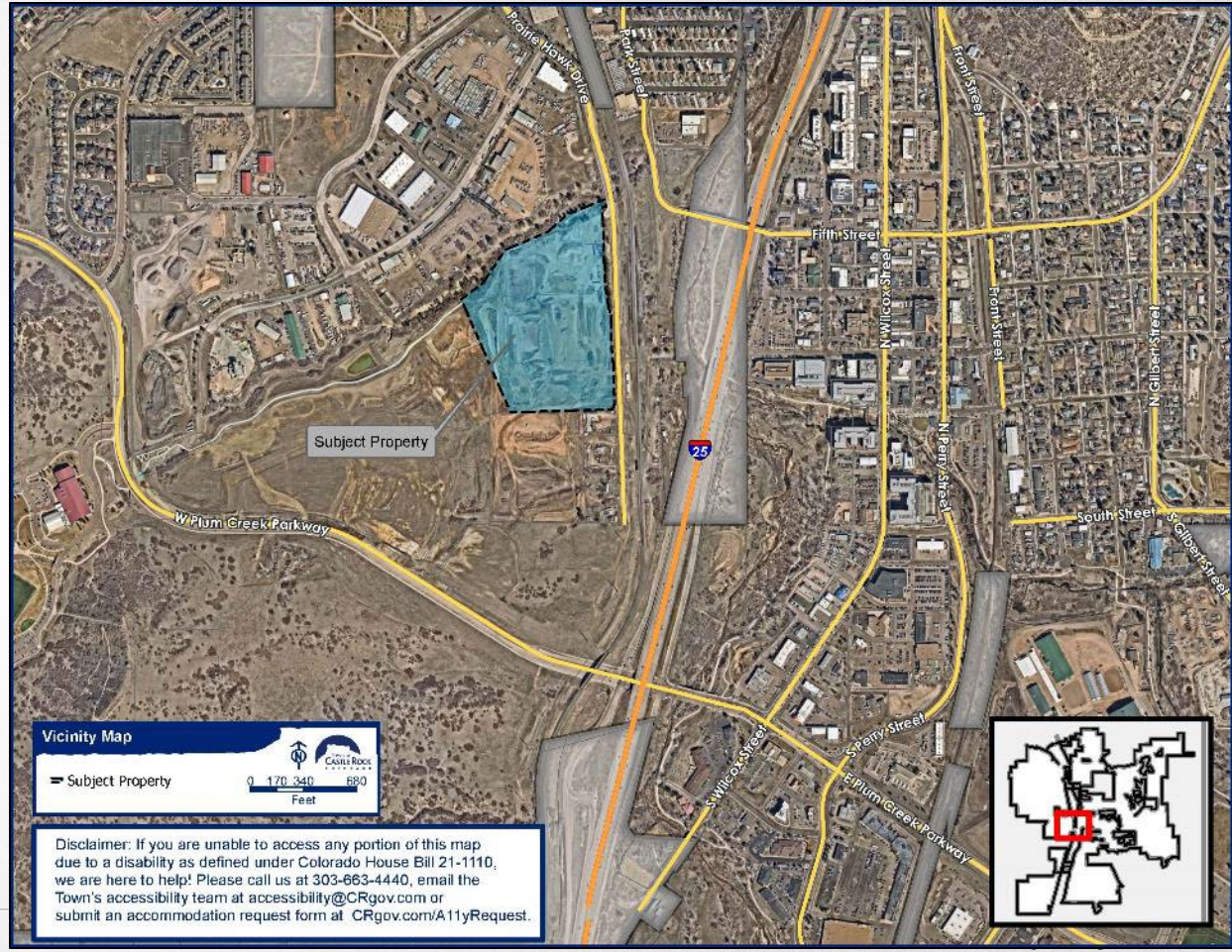
THE BRICKYARD
SITE DEVELOPMENT PLAN

PLANNING COMMISSION
SEPTEMBER 25, 2025

TOWN OF CASTLE ROCK
COLORADO

VICINITY MAP

- Former Acme Brick site
- Prairie Hawk Drive
- Between Plum Creek Pkwy and Wolfensberger Road
- West of BNSF RR
- Approximately 21 acres



SURROUNDING USES

Citadel Station - I-2
- Higher Intensity Industrial

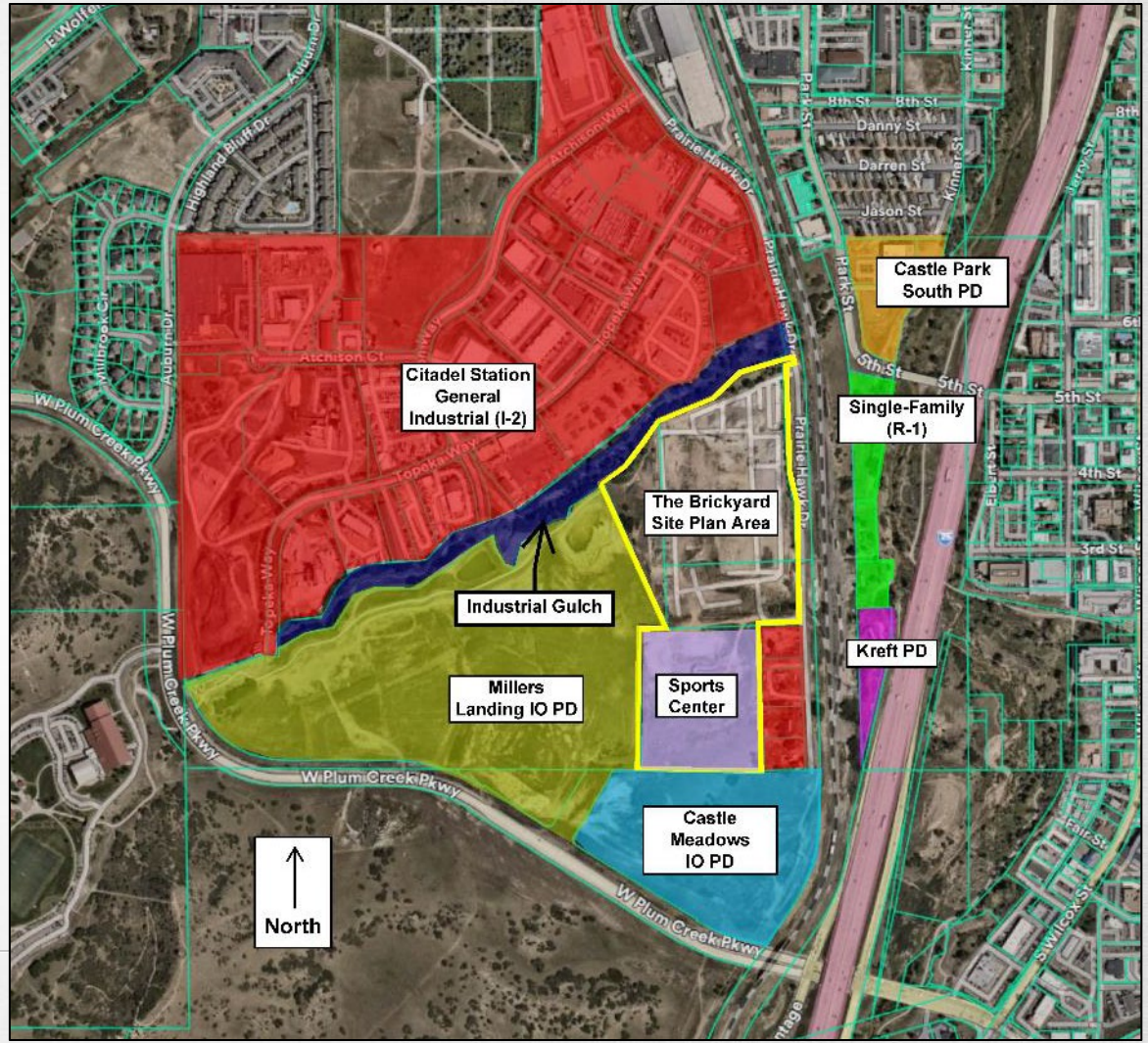
Miller's Landing – IO PD
- Mixed Use
- No residential

Castle Meadows – IO PD
- Mixed Use
- Includes residential

Kreft – PD
- Integrated business

Santa Fe Depot - R-1
- Single-family residential

Sports Center – PD
- Recreation

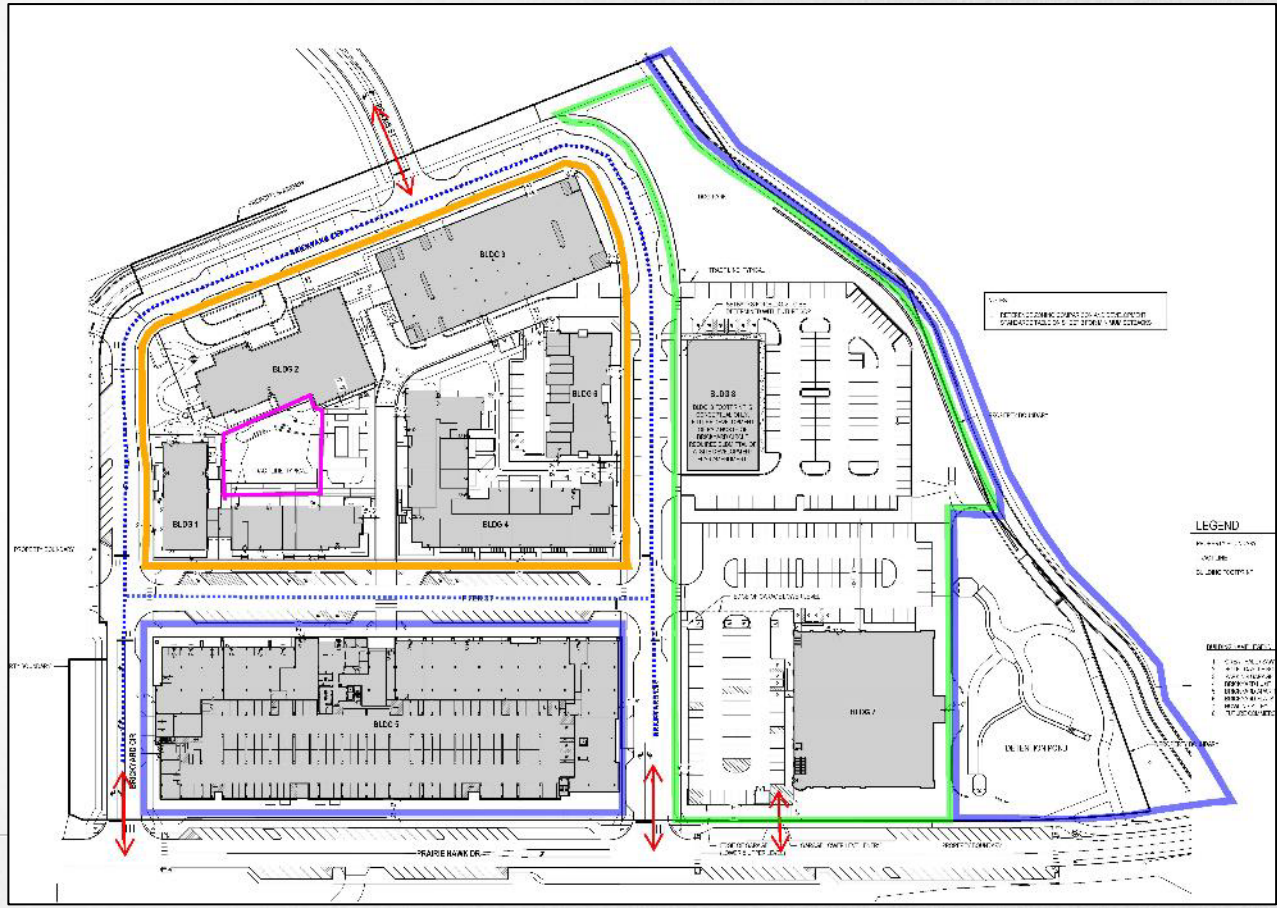


SITE DEVELOPMENT PLAN

Phase 1
- Infrastructure
- Detention
- Tributary improvements
- Multi-family/Commercial
- Parking structure

Phase 2
- Hotel/Conference
- Outdoor venue
- Office/Retail/Restaurant
- Multi-family
- Parking structure

Phase 3
- Bowling Alley/Entertainment
- Retail
- Surface and structure parking



DEVELOPMENT STANDARDS COMPARISON

	Brickyard PD Amd 1	PA-1	PA-2	PA-3	PA-4
Max. Dwelling Units	530		86	298	
Gross Density	25 du/ac		19 du/ac		
Max. Bldg. Height	65 to 90 ft	80 ft	55 ft	75 ft	55 ft
Min. Front Setback	Determined with the SDP	0 ft	0 ft	0 ft	0 ft
Min. Side Setback		0 ft	0 ft	0 ft	0 ft
Min. Rear Setback		0 ft	0 ft	0 ft	0 ft
Hotel SF	93,000 sf	93,000 sf			
Conference SF	6,000 sf	6,000 sf			
Great Hall	23,000 sf				23,000 sf
Office	49,000 sf		27,800 sf	21,000 sf	
Retail	7,100 sf		1,600 sf	5,500 sf	
Restaurant	17,000 sf		4,200 sf	12,800 sf	
Entertainment	67,900 sf			67,900 sf	
Total Non-Residential SF	263,000 sf	262,800 sf			

PARKING

Location	Phase 1	Phase 2	Phase 3	Resv'd	Type
CR Sports Center	468			0	Surface
Prairie Hawk Drive	92			0	On-Street
Internal Streets	95			0	On-Street
Building 5	336			174	Prkg Structure
Building 3		243		243	Prkg Structure
Building 6		12		12	Garages
Parking Lot A		15		15	Surface
Building 7			165	0	Prkg Structure
Parking Lot B			89	0	Surface
Parking Lot C			158	0	Surface
Parking by Phase	991	270	412	444	
Demand by Phase	941	286	293		
Cumulative by Phase		1,261	1,673		
Cumulative Demand by Phase		1,227	1,520		

COMMUNITY OUTREACH AND FEEDBACK

Community Questions and Feedback

- Density
- Programming of public spaces
- Prairie Hawk Drive improvements
- Hotel size
- Trails
- Parking
- Building height
- Construction schedule
- Railroad noise impacts

Neighborhood Meetings		
Date	Format	Attendance
June 12, 2024	Hybrid	8
November 20, 2024	Hybrid	5
September 17, 2025	Hybrid	4

SITE DEVELOPMENT PLAN REVIEW AND APPROVAL CRITERIA

Municipal Code Section 17.38.040

A. Community Vision / Land Use Entitlements
B. Site Layout
C. Circulation and Connectivity
D. Service, Phasing and Off-Site Impacts
E. Open Space, Public Lands and Recreation Amenities

ANALYSIS AND FINDINGS

- Town's Vision and Comprehensive Master Plan
- Brickyard Planned Development Plan and Zoning Regulations
- Municipal Code, Chapter 17.38 Site Development Plan

RECOMMENDATION

Staff recommends that Planning Commission recommend approval to Town Council of the Brickyard Site Development Plan, as proposed.

PROPOSED MOTION

“I move to recommend approval of the Brickyard Site Development Plan to Town Council, as proposed.”

QUESTIONS?

TOWN OF CASTLE ROCK COLORADO

ALTERNATIVE MOTIONS

Option 2: Approval with Conditions

"I move to recommend approval of the Brickyard Site Development Plan to Town Council, with the following conditions:" [list conditions]

Option 3: Continue item to next hearing for additional information.

"I move to continue this item to the Planning Commission meeting on [date], at [time]." [List information needed]

PARKING DEMAND - FULL BUILDOUT (1, 2 & 3) REFERENCE PARKING STUDY, DATED AUGUST 22, 2025

Uses	Quantity	Per Unit[6]	Peak Weekday Morning Use[5] (11 AM)	Peak Weekday Afternoon Use[6] (5 PM)	Peak Weekday Evening Use[7] (6 PM)	Peak Weekday Overnight Use[8] (12 AM)[2]	Peak Weekend Morning Use[5] (11 AM)	Peak Weekend Afternoon Use[6] (1 PM)[1]	Peak Weekend Evening Use[7] (7 PM)	Peak Weekend Overnight Use[8] (12 AM)[2]
General Retail	7,000	GSF	18	20	21	0	22	25	16	0
Retail - Market Place	1,500	GSF	5	6	5	1	6	6	2	0
Retail - Supermarket	15,000	GSF	45	60	58	5	62	62	19	2
Restaurant - Low Turnover	22,900	GSF	136	222	268	75	81	187	307	160
Bowling Alley[12]	60,000	GSF	111	111	203	3	171	231	243	231
Hotel - Guest Rooms	123	Rooms	37	38	37	148	42	39	41	148
Hotel - Conference Center[3]	6,000	GSF	40	60	56	0	25	26	35	1
Multifamily[4, 9]	384	Dwelling Units	487	495	502	768	491	491	535	768
General Office	25,000	GSF	62	36	15	0	7	6	0	0
Medical Office	31000	GSF	138	120	93	0	0	0	0	0
CR Sports Center[10, 11]	145,000	GSF	166	208	208	0	447	447	224	0
			1,245	**1,376**	**1,466**	**1,000**	**1,354**	**1,520**	**1,422**	**1,310**