Technical Attachments

University of the District of Columbia Lamond-Riggs Campus Master Plan 2023 – 2033

Washington, DC

September 15, 2023

GOROVE SLADE
Transportation Planners and Engineers

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A. Finalized DDOT CTR Scoping Form

District Department of Transportation (DDOT)
Comprehensive Transportation Review (CTR) Scoping Form

The purpose of the Comprehensive Transportation Review (CTR) study is to evaluate potential impacts to the transportation network that can be expected to result from an approved action by the Zoning Commission (ZC), Board of Zoning Adjustment (BZA), Public Space Committee (PSC), a Federal or District agency, or an operational change to the transportation network. The Scoping Form accompanies the *Guidance for Comprehensive Transportation Review* and provides the Applicant an opportunity to propose a scope of work to evaluate the potential transportation impacts of the project.

Directions: The *CTR Scoping Form* contains study elements that an Applicant is expected to complete to determine the scope of the analysis. An Applicant should fill out this *Scoping Form* with a proposed scope of analysis commensurate with the requested action and submit to DDOT in Word format for review and concurrence. Accordingly, not all elements and figures identified in the *Scoping Form* are required for every action, and there may be situations where additional analyses and figures may be necessary. The Applicant should fill out as many sections as possible and leave blank any sections that are not relevant to their project. Once a completed *Scoping Form* is submitted, DDOT will provide feedback on the initial proposed scope. DDOT's turnaround times are four (4) weeks for CTRs with a Traffic Impact Analysis (TIA) and three (3) weeks for all other lower tier studies. After the *Scoping Form* has been finalized and agreed to by DDOT, the Applicant is required to expand upon the elements outlined in this *Form* within the study and comply with all CTR requirements not specifically addressed in this *Form*.

Scoping Information
Date(s) Scoping Form Submitted to DDOT: 5/4/2023
DDOT Case Manager: Aaron Zimmerman and Noah Hagen
Date(s) Scoping Form Comments Returned to Applicant: 5/24/2023; 6/21/2023
Date Scoping Form Finalized:

Project Overview	**Proposed Development Program**
Project Name: University of the District of Columbia Lamond-Riggs Campus Master Plan	**Use(s)**: Institutional – college/university
Case Type & No. (ZC, BZA, PSC, etc.): ZC – Campus Master Plan	**Residential (dwelling units):** N/A
Applicant/Developer Name: University of the District of Columbia	**Retail (square feet):** N/A
Transportation Consultant and Contact Info: Gorove Slade Associates, Inc., 1140 Connecticut Avenue NW, Suite 1010, Washington, DC 20036 Daniel Solomon, 202-540-1928, ds@goroveslade.com Sasha Redmon, 202-296-8630, snr@goroveslade.com	**Office (square feet):** N/A
Land Use Counsel and Contact Info: Cozen O'Connor Meridith Moldenhauer, 202-747-0763, mmoldenhauer@cozen.com	**Hotel (rooms):** N/A
Site Street Address: 5171 South Dakota Ave NE, Washington, DC 20017	**Other:** Existing head count:

	Students: 1,499 Staff: 100 Anticipated head count: Students: 3,000 by 2030 Staff: 118
Site Square & Lot: Square 3757, Lot 802	**# of Vehicle Parking Spaces:** Existing: Northern lot: 23 spaces Southern lot: 165 spaces **Total: 188 spaces** Proposed: Phase I: Northern lot: 18 spaces Southern lot: 160 spaces **Total: 178 spaces** Phase II: Northern lot: 18 spaces Southern lot: 100 spaces **Total: 118 spaces**
Current Zoning and/or Overlay District: R-2	**# of Carshare spaces:** Existing: None Proposed: None
Estimated Date of Hearing: TBD	**# of Electric Vehicle Stations:** Existing: None Proposed: a minimum of two (2) spaces
ANC/SMD No. & SMD Commissioner Name: ANC 5A01, Duvalier J. Malone	**Bicycle Parking Facilities**
OP Small Area Plan (if applicable): Riggs Road and South Dakota Avenue Area Final Development Plan	**Long-term spaces:** Existing: None Proposed: Phase I: 17 spaces Phase II: 25 spaces (additional 8 spaces from Phase I) **Short-Term spaces:** Existing: approximately 20 spaces Proposed: Phase I: 64 spaces Phase II: 92 spaces (additional 28 spaces from Phase I)
DDOT Livability Study (if applicable): N/A	**Showers / Lockers (non-residential):** Existing: None

	Proposed: Six (6) showers and 16 lockers
Within ½ Mile of Metrorail or ¼ mile of Priority Bus/Streetcar?: Yes, half mile of Fort Totten Metro Station and quarter mile of Priority Bus Network on South Dakota Avenue NE.	**Loading Berths/Spaces:** Existing: Loading occurs from both the northern and southern lots. Proposed: Two (2) 12'x30' loading berths, one (1) 10'x20' service/delivery space in Phase II

Documents to be Submitted to DDOT: *Any action requiring a CTR or some other evaluation of on-site or off-site transportation facilities must submit one of the following documents to DDOT. It must be appropriately scoped for the specific action proposed and document all relevant site operations and transportation analyses.*

☒ **CTR Study** (100 or more total peak hour person trips OR 25 or more peak hour vehicle trips in peak direction, or as deemed necessary by DDOT)

☒ **TIA Component of CTR Study Triggered** (25 or more peak hour vehicle trips in peak direction, or as deemed necessary by DDOT)

☐ **Transportation Statement** (limited scope based on specifics of project OR if Low Impact Development Exemption from CTR and TIA is requested)

☐ **Standalone TIA** (project proposes a change to roadway capacity, operations, or directionality, has a site access challenge, or as deemed necessary by DDOT)

☐ **Other, specify:** _____

☐ Include PDF of report with appendices, traffic analysis files, and traffic counts in DDOT spreadsheet format (total size of all digital files under 15 MB, if possible)

Existing Site and Description of Action: *Describe the type(s) of regulatory approval(s) being requested and any background information on the project relevant to the requested action such as the existing uses, amount of vehicle parking, and other notable proposed changes on-site. Also note any other needed regulatory approvals outside of the zoning action discussed in this Form (e.g., Surveyor's Order for alley closure).*

This scoping form is for the University of the District of Columbia (UDC) Lamond-Riggs Campus Master Plan (CMP). The Lamond-Riggs Campus is located at the southeast corner of South Dakota Avenue and Hamilton Street at 5171 South Dakota NE, in the Queen's Chapel neighborhood of the District. The surrounding area comprises predominately residential uses, consisting of both high-rise apartments and single-family homes. The Campus is bordered by Hamilton Street NW to the northwest, South Dakota Avenue NE to the southwest, Galloway Street NE to the southeast, and a public alley to the northeast. The Campus is currently improved with a single three-story building (Wings A, B, and C), greenhouses, green spaces, and two (2) surface parking lots.

UDC is proposing two (2) phases of the CMP.

- Phase I will include the following:
  - Partial modernization upgrades to the existing wings, including internal space reconfiguration, programming utility upgrades, and HVAC system replacement;
    - Façade improvements will be made along the main entrance of Wing A and new signage will be provided along the South Dakota Avenue NE and Hamilton Street NW frontages;
    - A student-oriented amenity space such as a coffee and food service station will be provided in Wing B;
    - Additional lab space and storage areas, demonstration kitchen, adjacent community garden, and the greenhouses will be provided in Wing C; and
    - A new green space will be developed between the three (3) wings adjacent to the southern parking lot.
  - Reconfiguration of the northern and southern parking lots with new green space located in the southern parking lot. This will lead to a reduction of vehicle parking spaces from 23 to 18 spaces in northern parking lot and from 165 to 160 spaces in southern parking lot, respectively;
  - Enhancement of loading area to the northern parking lot; and
  - New bicycle parking areas which can be accessed from South Dakota Avenue NE and Hamilton Street NE.
- Phase II will include the following:
  - A building addition (Wing D), approximately 55,000 sf, to be constructed over part of the existing southern parking lot. This new wing will provide additional academic and administrative space, along with a student center, green roof, and other needed facilities. A new, student-oriented entrance will be installed, located at the new plaza at the southwestern corner of the campus. This new entrance will connect to a student forum, offering space for relaxing and collaboration. The open courtyard will feature landscaping which promotes congregation amongst students and faculty, along with walkways and rest areas;
  - Continuing upgrades to the remaining wings, including:
    - Façade improvements including additional decorative paneling and screens on the public-facing building walls of Wing A, along with a newly installed green wall on Wing A's façade facing the interior courtyard;
    - Enhancements to the food service area in Wing B; and
    - Enhanced rooftop mechanical penthouses, additional bicycle parking, and a second-floor accessible green roof on a portion of Wing C with visual connection to the courtyard.
  - Reconfiguration of the south parking lot with a reduction of vehicle parking spaces from 160 to 100 spaces.

Among the two (2) phases, the Applicant will be seeking Further Processing applications for Phases II.

Prior Related Action(s), Conditions, and Commitments: *Note any prior approvals by ZC, BZA, or PSC (e.g., Campus Master Plan, First Stage PUD, student/faculty cap, etc.) for the site and list all relevant conditions and proffers still in effect from the previous approval and status of completion. Attach a copy of the Decision section from the previous Zoning Order if still in effect.*

Section 1: SITE DESIGN

DDOT reviews the site plan to evaluate consistency with DDOT's standards, policies, and approach to access as documented in the most recent Design and Engineering Manual (DEM). If the proposal for use of public space is found to be inconsistent with the agency approach, DDOT will note this regardless of its relevance to the action. It is DDOT's position that issues regarding public space be addressed at the earliest possible opportunity to ensure the highest quality project design and to minimize project delays and the need to re-design a site in the future.

CATEGORY & GUIDELINES	APPLICANT PROPOSAL	DDOT COMMENTS
Site Access and Connectivity Show site access points for all modes. Include proposed curb cut locations, curb cuts to be closed, access controls (e.g., right-in/out, signalized), sight distances and sight triangles from access points and new intersections, driveway widths and spacing, on- and off-site parking locations, inter-parcel connections, public/private status of driveways, alleys, and streets, and whether easements, dedications, or ROW closures are proposed. *See Section 1.1 of the CTR Guidelines for more detailed guidance.*	**Vehicular access:** As there is no change in use, the project proposes to retain the two (2) existing curb cuts off Galloway Street NE and Hamilton Street NE. Existing vehicular parking is provided in the two (2) existing parking lots: the "Northern Lot", which can be accessed from Hamilton Street NE, and the "Southern Lot", which can be accessed from Galloway Street NE. Due to the narrow width (16') of the alley, and the significant grade differences between the alley elevation and the surface lots, vehicular access point to the alley will not be feasible. Near the intersection of the alley and Galloway Street, the elevation difference is minimal, but would require the significant disturbance elimination of an agricultural programing and bioretention area. Additionally, abutting a number of residential uses, the alley would not be able to accommodate the additional demand. The curb cut on Galloway Street NE will be widened from its current width of 14.5' to 20' during Phase II, and the curb cut on Hamilton Street NE will be brought up to DDOT and DEM standards during Phase II. An exhibit showing the campus topography is provided in the attachments. **Bicycle access:** Primary bicycle access to the campus will be from Hamilton Avenue NE. Long-term bicycle parking will be provided in Wing C. Short-term bicycle parking will be provided at highly visible and accessible locations nearby Wing A. Locations of bicycle parking are included in the scoping attachments. **Pedestrian access:** Under existing conditions, the campus has limited pedestrian entryways with only the old Middle School entrance along South Dakota Avenue. The project proposes to enhance the pedestrian experience by removing surface parking in the campus's central core, adding pedestrian walkways and a new centralized student entrance to the campus, and making the pedestrian network more porous and connective. A graphic showing the anticipated site circulation is provided in the attachments. ☒ *Scoping Graphic: Project Location Map* ☒ *Scoping Graphic: Site Circulation Plan* ☒ *Scoping Graphic: Plat for Site's Square and Lot from Office of the Surveyor (if official plat not available, provide copy from SURDOCS)*	DDOT 5/24/23: How will pedestrians access the site from Hamilton Street? It appears that pedestrians will have to walk down the driveway and across the parking lot. Please add a safe pedestrian walkway at this entrance along with a striped pedestrian crossing across the parking lot. GS 6/7/23: The pedestrian entrances off the Hamilton Street parking lot are intended to be secondary pedestrian access points for staff parking in that lot and a pedestrian walkway is not required by zoning. It is expected that the primary pedestrian access for the site will be from the main entrance on S Dakota Avenue. DDOT 6/21/23: Noted. DDOT strongly prefers that at least a striped walkway is provided in this area to indicate pedestrian priority. Please also add, at a minimum, an ADA-accessible leadwalk.

		DDOT 5/24/23: It is unclear from the graphics whether the leadwalk on the south side of the site connects to the Galloway Street sidewalk or if it terminates at the outdoor seating area. If it doesn't already connect, please extend the leadwalk to connect with the sidewalk. GS 6/7/23: The leadwalk will connect to the sidewalk on Galloway Street. A more detailed plan will be included in the CTR. DDOT 6/21/23: Noted. DDOT concurs. --- DDOT 5/24/23: How will people on bicycles approach the site? Will they be coming from the Met Branch Trail? GS 6/7/23: Expected bicycle routes and existing/future facilities will be highlighted in the CTR. DDOT 6/21/23: DDOT concurs. --- DDOT 5/24/23: Does Hamilton Ave provide a safe and realistic bicycle entrance, or is Galloway more appropriate? It looks like Hamilton is also where deliveries and loading will be in the

		future, which could be a source of conflict. GS 6/7/23: Access to the long-term bicycle parking will be provided via Galloway Street NE. Updated site circulation plan will be included in the CTR. DDOT 6/21/23: Noted. In the CTR, indicate the access route through the building between Galloway Street and the long-term bicycle parking, and consider including pavement markings in the northern vehicle lot to denote the bicycle access point.
Loading Discuss and show the quantity and sizes of loading berths/delivery spaces, trash storage locations, on- and off-site loading locations, turnaround design, nearby commercial loading zones, and anticipated demand, operations, and routing of delivery and trash vehicles. Identify the sizes of trucks anticipated to serve the site and design vehicles to be used in truck turning diagrams. Provide truck turning diagrams in the body of the report not the appendix. Include a Loading Management Plan (LMP) if zoning relief, back-in loading, or curbside loading is proposed.	Under existing conditions, loading operations for the campus primarily occur at the southern lot. Under proposed conditions (gradually starting in Phase I), waste removal, loading, and delivery service areas will be relocated to the northern lot accessible from Hamilton Street NE. Due to significant grade differences between the northern (elevation 127) and southern lot (elevation 113) relocating the loading to the northern lot will better collocate internal service corridors and future uses such as the demonstration kitchen. Per ZR16 requirements, an education use of more than 100,000 square feet is required to provide two (2) loading berths and one (1) service/delivery space. Consistent with these requirements, the Lamond-Riggs campus will provide two (2) loading berths and one (1) service/delivery space in Phase II. All truck backing maneuvers will occur within the site. Truck access to the site will be via front-in/front-out maneuvers only through public spaces. Truck turning diagrams will be provided in the CTR. ☐ *Scoping Graphic: Location of loading area with internal building routing* ☐ *Scoping Graphic: Truck Turning Diagrams (to/from the site, alley, truck routes)*	DDOT 5/24/23: DDOT concurs. Make sure that all loading turns are on private property with head-in/head-out access through the sidewalk. GS 6/7/23: Noted. Head-in/head-out maneuvering diagrams will be included in the CTR. DDOT 6/21/23: DDOT concurs.

See Section 1.2 of the CTR Guidelines for more detailed guidance. A template LMP is provided in Appendix E.

Vehicle Parking

Identify all off-street parking locations (on- and off-site) and justify the amount of on-site vehicle parking, including a comparison to the number of spaces required by ZR16 and DDOT's Preferred Maximum rates (Figure 10). Provide parking calculations and parking ratios by land use, including any eligible ZR16 vehicle parking reductions (i.e., within ¼ mile of Priority Bus Route, within ½ mile of Metrorail Station, providing carshare spaces, located within a D zone, etc.). Confirm whether ZR16 TDM Measures will be required per Subtitle C § 707.3 for providing more than double the required amount of parking.

See Section 1.3 of the CTR Guidelines for more detailed guidance.

Under existing conditions, the southern lot contains approximately 165 parking spaces, and the northern lot contains approximately 23 spaces, for a total of approximately 188 vehicle parking spaces serving the UDC Lamond-Riggs campus. While permits are required, parking in the surface lot is currently unmonitored, has no access controls, and is provided on a "first come, first serve" basis.

Under proposed conditions, UDC will implement strategies to better manage the parking supply at Lamond-Riggs, including access controls. Parking will be reduced by 10 spaces during the Phase I partial modernization, and by additional 60 spaces during Phase II due to the reduction of the southern lot to accommodate the addition of Wing D. Proposed quantities and locations of vehicle parking spaces are shown as below:

	Northern Lot	Southern Lot	Total
Phase I	18 spaces	160 spaces	178 spaces
Phase II	18 spaces	100 spaces	118 spaces

According to ZR16 C 701.5, if a campus plan has been approved by the Zoning Commission or the Board of Zoning Adjustment for the college or university, parking shall be provided as set forth in the approved campus plan. Baseline ZR16 rates (which would apply without a CMP in place) are shown in the table below. A discussion of how the proposed reduction in parking supply on campus will meet the practical demands through TDM and available adjacent parking supply will be included in the CTR.

Land Use	Size	Vehicle Parking Spaces		
	Proposed	Required (ZR-16)		DDOT-Preferred Rate[1]
		Supply[1]	Ratio[2]	
Education, college/university	3,000 students and 118 faculty/staff	190-379 spaces	0.1/student 0.67/staff	90% of ZR-16 requirements (171-341 spaces)

[1] The ZR16 minimum vehicle parking supply is calculated based on the table of Subtitle C § 701.5. Per 702.1(a), parking supply may be reduced by 50% given the proposed development's proximity to Fort Totten Metrorail station and transit priority corridor along South Dakota Avenue NE.

[2] Supply is measured in *spaces*, while ratio is measured in *spaces/student* or *spaces/staff*.
For each building: 2 for each 3 teachers; plus either 1 for each 10 classroom seats or 1 for each 12 stadium seats or 1 for each 10 auditorium seats, whichever is greater, except if a campus plan has been approved by the Zoning Commission or the Board of Zoning Adjustment for the college or university, in which case the parking shall be provided as set forth in the approved campus plan.

☒ *Scoping Table: Parking Calculations with Comparison to ZR16 and DDOT's Preferred Maximum Vehicle Parking (Figure 10)*

☐ *Scoping Graphic: Off-Street Parking Locations (both on- and off-site)*

DDOT 5/24/23: DDOT supports the reduction in parking and encourage the Applicant to look for ways to further reduce the number of parking spaces, including by adding additional green space per OP's comments.

GS 6/7/23: Noted.

DDOT 6/21/23: DDOT concurs.

DDOT 5/24/23: How will access to the parking lots be controlled?

GS 6/7/23: At this point, the University does not consider necessary or cost effective the installation of a gate to control access to the parking lots. Parking permits and hang tags will continue to be available for students, staff, and faculty at the Lamond-Riggs Campus, with parking enforcement provided by UDC Public Safety.

DDOT 6/21/23: DDOT concurs. In the CMP, include a description of how parking will be enforced.

Bicycle Parking

Identify the locations of proposed bicycle parking and justify the amount of long- and short-term spaces proposed. Provide a calculation of the number of spaces required by ZR16, as well as showers and lockers for non-residential uses, and ensure they are designed appropriately into the project.

See Section 1.4 and Appendix F of the CTR Guidelines, and the latest DDOT Bike Parking Guide, for more detailed design guidance.

Under existing conditions, no long-term bicycle parking spaces are provided on the campus and approximately 20 short-term bicycle parking spaces are located in two (2) bicycle racks in the southern parking lot.

According to ZR16 C 701.5, if a campus plan has been approved by the Zoning Commission or the Board of Zoning Adjustment for the college or university, parking shall be provided as set forth in the approved campus plan.

Under future conditions, proposed quantities and locations of bicycle parking spaces are shown as below:

	Short-term Spaces	Long-term Spaces
Phase I	64	17
Phase II	92 (additional 28 spaces from Phase I)	25 (additional 8 spaces from Phase I)

Long-term, covered bicycle parking will be provided in Wing C. Short-term parking spaces will be provided in a highly visible and accessible area along South Dakota Avenue.

Additionally, the zoning requirements for Showers and Lockers for non-residential uses over 25,000 sf utilize the following calculations:

- Showers: A minimum of two (2) showers. An additional two (2) showers shall be installed for every additional 50,000 sf of gross floor area, up to a maximum requirement of six (6) showers.
- Lockers: Six-tenths (0.6) of the number of long-term bicycle parking spaces for non-residential users

The Applicant will provide six (6) showers and 16 lockers, meeting the shower and exceeding the locker requirements, respectively. Detailed locations of these facilities will be included in the CTR.

☐ *Scoping Graphic: Locations of internal bicycle parking spaces, routing to these spaces, and related support facilities including locker rooms, showers, storage areas, and service repair rooms*

DDOT 5/24/23: Look for ways to move some of the short-term bicycle parking spaces indoors to become long-term spaces and/or add a covering over the short-term spaces.

GS 6/7/23: Noted. The Applicant will explore the options to move some of the short-term bicycle parking spaces indoors or add a covering over the short-term spaces.

DDOT 6/21/23: DDOT concurs.

DDOT 5/24/23: Please ensure short and long-term bicycle parking spaces are installed according to the DDOT Bike Parking Guide with close attention paid to spacing dimensions and long-term bike parking requirements (e.g., at least 50% of long-term spaces must allow for bikes to be placed horizontally on the floor or ground without the bike being suspended. Short-term bicycle racks must: be galvanized or stainless steel and covered with a powdercoat, PVC, or thermoplastic coating; must have a locking pole with a diameter between 1.5" and 2.5"; if surface-mounted, must have at least one tamper-resistant nut per rack

		'footing'; and, if surfaced-mounted, must not have arranged anchors along a single axis, leaving them vulnerable to a "fulcrum attack". GS 6/7/23: Noted. Short- and long-term bicycle parking spaces will be installed in compliance with the DDOT Bike Parking Guide. DDOT 6/21/23: DDOT concurs.
Streetscape and Public Realm Provide a conceptual layout of the streetscape and public realm including at minimum: curb cuts, vaults, sidewalk widths, street trees, grade changes, building projections, short-term bicycle parking, and any existing bus stops. Also provide the permit tracking numbers and PSC hearing date, if known, for any approved public space designs. Note any non-compliant public space elements requiring a DCRA code modification or PSC approval. *See Section 1.5 of the CTR Guidelines for more detailed guidance. A summary of public space best practices and DDOT standards are also documented in the DEM, Public Realm Design Manual, and corridor*	A conceptual streetscape layout will be provided in the CTR. Detailed layouts will be included in site plans submitted with the Application as part of the zoning process. ☐ *Scoping Graphic: Preliminary Public Space Concept*	DDOT 5/24/23: Ensure that a green buffer and street trees are provided along the South Dakota Avenue sidewalk in order to meet DDOT sidewalk standards. GS 6/7/23: This accommodation will require tearing up the existing sidewalks and installing additional tree boxes along South Dakota Avenue fronting the campus. Considering the future DDOT plans for improving South Dakota Avenue, it is recommended that any improvements along this segment be implemented as part of that project. DDOT 6/21/23: Noted. At a minimum, ensure that any missing tree boxes are installed in order to meet the DDOT standard spacing. The Applicant and DDOT should

Streetscape Guidelines (if applicable).		continue to coordinate on the South Dakota Avenue streetscape design. DDOT 5/24/23: Ensure that the Hamilton Avenue sidewalk is widened to at least 6 feet. GS 6/7/23: Noted. DDOT 6/21/23: DDOT concurs. DDOT 5/24/23: Add a second pedestrian access point to Galloway Street close to the intersection with South Dakota Avenue. GS 6/7/23: As shown in the Anticipated Site Circulation graphic (Appendix C), the site is accessible to/from pedestrian pathways provided on Galloway Street and South Dakota Avenue, with an enhanced condition in Phase II. As such, the Applicant recommends maintain the currently proposed pedestrian connectivity to Galloway Street. DDOT 6/21/23: Noted. DDOT concurs. DDOT 5/24/23: Per OP's comment, consider adding public art or other visual activation at the

		southeast corner of South Dakota and Hamilton. GS 6/7/23: Noted. The Applicant will consider adding UDC banners/signage or other façade treatments at the auditorium. DDOT 6/21/23: DDOT concurs. --- DDOT 5/24/23: Remove and replace the existing fence with a more aesthetically interesting installation. Also, note on the site plan diagrams where this fence will be replaced and where it will be removed entirely. GS 6/7/23: Existing chain link fence along South Dakota Avenue and Galloway Street NE will be removed in Phase I, and those along the alley will be replaced with metal picket fence. The updated site plan diagrams showing these details will be included in the CTR. DDOT 6/21/23: DDOT concurs. --- DDOT 5/24/23: Consider including the following items as mitigation measures: - Capital Bikeshare station - Curb extensions at South Dakota &

		Hamilton and South Dakota & Galloway - Upgrade bus shelters at South Dakota & Galloway GS 6/7/23: Noted. The Applicant will consider these mitigation measures as part of the CMP and Further Processing DDOT 6/21/23: DDOT concurs.
Sustainable Transportation Elements Identify all sustainable transportation elements, such as electric vehicle (EV) charging stations and carshare spaces proposed to be included in the project. Electrical conduit should be installed in parking garage so that additional EV stations can be provided later. DDOT recommends 1 per 50 vehicle spaces be served by an EV station. Note that District regulations for EV infrastructure is fast evolving and additional requirements may go into effect. *See Section 1.6 of the CTR Guidelines for more detailed guidance.*	Sustainable transportation elements will be identified as part of the CTR. Section 1.6 of the DDOT CTR guidelines recommends that one (1) out of every 50 spaces be served by an EV charging station. The Applicant will provide a minimum of two (2) electric vehicle parking spaces.	DDOT concurs. GS 6/7/23: Noted

Heritage, Special, and Street Trees Heritage Trees are defined as having a circumference of 100 inches or more. They are protected by District law and must be preserved if deemed non-hazardous by Urban Forestry Division (UFD). Special Trees are between 44 inches and 99.99 inches in circumference and may be removed with a permit. Note whether there are existing Heritage Trees on-site or in adjacent public space. The presence of Heritage Trees will impact site design since they may not be cut down. Conduct an inventory of existing and missing street trees within a 2-block radius of the site. Provide a screenshot from UFD's map of existing and missing street trees. *See Section 1.7 of the CTR Guidelines for more detailed guidance.*	The Applicant will work with UFD to determine if there are any Heritage or Special Trees that will be impacted on-site. The CTR will include a screenshot of the street tree inventory for the area surrounding the site using DC UFD mapping layer of Street Trees in Washington, DC. ☐ *Scoping Graphic: Street Tree Inventory Study Area*	DDOT: See attached letter from UFD. GS 6/7/23: Noted. The Applicant will contact DDOT Arborist to schedule a field meeting to discuss to overall scope of work in relation to existing Special/Heritage trees and to coordinate next steps. DDOT 6/21/23: DDOT concurs.

Section 2: MULTI-MODAL TRIP GENERATION

CATEGORY & GUIDELINES	APPLICANT PROPOSAL	DDOT COMMENTS
Mode Split Provide mode split assumptions with sources and justification. Adjustments to mode split assumptions may be made, as appropriate, if the number of vehicle parking spaces proposed	The mode split assumptions are based on a combination of Van Ness campus surveys conducted in 2011 and 2016 and a preliminary Lamond-Riggs survey conducted in 2022/2023. The Lamond-Riggs survey results will be updated in the CTR once it is finalized. The following are results of a mix of campus survey: • Van Ness campus survey conducted in 2011 for UDC Student Center market research	DDOT concurs. GS 6/7/23: Noted. In response to the next DDOT comment, the mode split has been revised to assume an "overall" mode split for both students and staff for the campus.

	Drive	Transit	Bike	Walk
Students	27.8%	64.5%	2.0%	5.7%
Staff	61.6%	31.5%	4.1%	1.4%

is significantly lower or higher than expected for the context of the neighborhood.

The agreed upon mode split assumptions may not be revised between scoping and CTR submission without amending the scoping form and receiving DDOT concurrence.

See Section 2.1 of the CTR Guidelines for acceptable data sources and methodologies.

- Van Ness campus survey conducted in 2016 for TDM study

	Drive	Transit	Bike	Walk	Other
Students	33.6%	59.4%	0.9%	3.9%	2.2%
Staff	53.7%	39.9%	1.3%	2.5%	2.6%

- Preliminary results from Lamond-Riggs campus survey conducted in 2022/2023
  - As of 1/13/23, out of 361 survey participants, 62 indicate that they drive to campus (17.2%)

Based on the survey results, the reduction in parking spaces on-site compared to existing conditions, the provision of a TDM plan, the potential for Zero-Fare buses in Washington DC should it be approved and enacted in the future, and UDC's plan to explore enrollment in the WMATA U-Pass program, the mode split assumptions are as follows:

	Drive	Transit	Bike	Walk
Students	17%	75%	2%	6%
Staff	50%	45%	2%	3%

In order to provide a trip generation calculation that incorporates the auto splits of both students and staff, the 2016 Van Ness campus survey and 2022/2023 preliminary Lamond-Riggs campus survey were utilized to establish an "overall" auto split that represents the combined student and staff populations, as shown below. The "overall" mode split was weighted by the anticipated student and staff population by 2030, which resulted in 1% increase as the student population is much larger than the staff. To be conservative, the overall auto mode split was assumed to be 20%.

	Drive	Transit	Bike	Walk
Students and Staff	20%	72%	2%	6%

☒ *Scoping Table: Mode Split Assumptions by Land Use*

The "overall" mode split incorporates both student and staff mode splits and is weighted by the anticipated student and staff populations.

DDOT 6/21/23: DDOT concurs.

Trip Calculations

Provide site-generated person trip estimates, utilizing the most recent version of ITE *Trip Generation Manual* or another agreed upon methodology such as manual doorway or driveway counts at similar facilities. Estimates must be provided by mode, type of trip, land use, and development phase during weekday AM and PM commuter peaks, Saturday mid-day peak, and daily totals. CTR must also include existing site trip generation based on observed counts. Include estimates for the transit,

Multi-modal trip generation was calculated using ITE Trip Generation Manual 11th Edition rates for land use ~~550 (University/College)~~ 540 (Junior/Community College) with the independent variable "Students" to calculate trips.

The ITE trip generation for the proposed project is shown below and is included in the attachments to this form.

Mode	AM Peak Hour			PM Peak Hour			Daily Total
	In	*Out*	*Total*	*In*	*Out*	*Total*	
Proposed (3,000 students)							
Auto	~~59~~ 53 veh/hr	~~17~~ 13 veh/hr	~~76~~ 66 veh/hr	~~25~~ 37 veh/hr	~~51~~ 29 veh/hr	~~76~~ 66 veh/hr	~~1063~~ 690 veh
Transit	~~311~~ 227 ppl/hr	~~87~~ 53 ppl/hr	~~398~~ 280 ppl/hr	~~128~~ 157 ppl/hr	~~270~~ 123 ppl/hr	~~398~~ 280 ppl/hr	~~5531~~ 2931 ppl
Bike	~~8~~ 6 ppl/hr	~~3~~ 2 ppl/hr	~~11~~ 8 ppl/hr	~~3~~ 4 ppl/hr	~~8~~ 4 ppl/hr	~~11~~ 8 ppl/hr	~~147~~ 81 ppl
Walk	~~25~~ 19 ppl/hr	~~7~~ 4 ppl/hr	~~32~~ 23 ppl/hr	~~10~~ 13 ppl/hr	~~22~~ 10 ppl/hr	~~32~~ 23 ppl/hr	~~442~~ 244 ppl

DDOT 5/24/23: In the above section, it says that 50% of staff drive, but in the trip generation it appears that only the student figure of 17% is used. Please update the trip generation to reflect the 50% staff auto mode split.

For the proposed future conditions, it may be more accurate to estimate this trip generation based on the class schedule and the maximum number of students attending class on a given day rather than the generic ITE land use.

bicycle, walk, and automobile modes.

The agreed upon trip generation methodology may not be revised between scoping and CTR submission without amending the scoping form and receiving DDOT concurrence. Consult the DDOT Case Manager if site plan, development program, land uses, or density changes significantly.

See Section 2.2 of the CTR Guidelines for guidance on auto occupancy rates, acceptable trip reductions, and other methodologies.

The existing head count of the campus includes 1,499 students. The table below shows the net new trips generated by the anticipated head count as compared to the existing conditions.

Existing and Proposed Trip Generation (Based on ITE, for Multimodal Comparison Purposes):

Mode	AM Peak Hour			PM Peak Hour			Daily Total
	In	*Out*	*Total*	*In*	*Out*	*Total*	
Proposed (3,000 students)							
Auto	53 veh/hr	13 veh/hr	66 veh/hr	37 veh/hr	29 veh/hr	66 veh/hr	690 veh
Transit	227 ppl/hr	53 ppl/hr	280 ppl/hr	157 ppl/hr	123 ppl/hr	280 ppl/hr	2931 ppl
Bike	6 ppl/hr	2 ppl/hr	8 ppl/hr	4 ppl/hr	4 ppl/hr	8 ppl/hr	81 ppl
Walk	19 ppl/hr	4 ppl/hr	23 ppl/hr	13 ppl/hr	10 ppl/hr	23 ppl/hr	245 ppl
Existing (1,499 students)							
Auto	27 veh/hr	6 veh/hr	33 veh/hr	19 veh/hr	14 veh/hr	33 veh/hr	345 veh
Transit	114 ppl/hr	26 ppl/hr	140 ppl/hr	78 ppl/hr	62 ppl/hr	140 ppl/hr	1464 ppl
Bike	3 ppl/hr	1 ppl/hr	4 ppl/hr	2 ppl/hr	2 ppl/hr	4 ppl/hr	41 ppl
Walk	9 ppl/hr	3 ppl/hr	12 ppl/hr	7 ppl/hr	5 ppl/hr	12 ppl/hr	122 ppl

The above trip generation table is provided for multimodal comparison purposes based on ITE rates. The existing driveway counts shown in the table below will be used to establish net vehicular trip generation and develop future volumes for conservative analysis.

Existing Trip Generation (Based on Driveway Counts):

Mode	AM Peak Hour			PM Peak Hour			Daily Total
	In	*Out*	*Total*	*In*	*Out*	*Total*	
Existing Driveway Counts							
Auto	36 veh/hr	6 veh/hr	42 veh/hr	2 veh/hr	6 veh/hr	8 veh/hr	---

Net New Trip Generation (For Capacity Analysis Purposes):

Mode	AM Peak Hour			PM Peak Hour			Daily Total
	In	*Out*	*Total*	*In*	*Out*	*Total*	
Net New Trips							
Auto*	17 veh/hr	7 veh/hr	24 veh/hr	35 veh/hr	23 veh/hr	58 veh/hr	---
Transit**	113 ppl/hr	27 ppl/hr	140 ppl/hr	79 ppl/hr	61 ppl/hr	140 ppl/hr	1467 ppl
Bike**	3 ppl/hr	1 ppl/hr	4 ppl/hr	2 ppl/hr	2 ppl/hr	4 ppl/hr	40 ppl
Walk**	10 ppl/hr	1 ppl/hr	11 ppl/hr	6 ppl/hr	5 ppl/hr	11 ppl/hr	123 ppl

*Net new vehicle trips based on peak hour driveway counts.
**Net new non-auto trips based on ITE rates

☒ *Scoping Table: Multi-Modal Trip Gen Summary (with mode split and applicable reductions, as appropriate)*

Comparisons should be made between ITE projected existing trips and actual existing driveway counts. Use the higher of the two for conservative analysis.

GS 6/7/23:
Based on a closer review of the trip generation assumptions, the calculations have been revised to instead use LU 540 Junior/Community College. The previously submitted form utilized 550 University/College. This change to 540 Junior/Community College better reflects the functional use of the Lamond-Riggs campus.

Based on ITE *Trip Generation*, the calculation of trips generated for LU 540 utilizes either the student population or the employee population as the independent variable and calculates trips for the overall campus population (students and employees combined). Therefore, using student population as the independent variable should capture staff activity as well.

However, to ensure a conservative approach in the analysis, an "overall" mode split, as illustrated above, was used to determine

		the updated the trip generation shown to the left. Given that this is a CMP, detailed information about class schedules and individual course enrollment is not known at this time. As such, it is proposed that ITE rates be used for proposed trip generation calculations at this stage, and more detailed trip generation calculations (e.g., modelling trips on an hourly basis per expected schedules) can be explored as part of Further Processing. The ITE projected existing trips are shown for multimodal trip comparison purposes. The existing driveway counts will be used to develop future volumes for a conservative analysis. A table showing the existing driveway counts an updated net trip generation table is shown to the left. DDOT 6/21/2023: DDOT concurs. In the CTR, be sure to provide a more in-depth discussion of trip generation assumptions such as late-night (post-PM peak) class schedules and how many students are expected to be on campus at once.

Section 3: MULTI-MODAL NETWORK EVALUATION

A multi-modal network evaluation is required in the CTR or Transportation Statement if the project generates 100 or more total person trips (combined inbound and outbound) OR 25 or more vehicle trips in the peak direction (highest of inbound or outbound) during any peak hour period. Existing site traffic, pass-by, TDM, internal capture or other reductions may not be taken in the calculation to determine if the project meets these thresholds. However, the reductions may be applied in the analysis, as appropriate, if a study is triggered. Multi-modal analyses in this section are required in all CTRs, unless otherwise specified. A Transportation Statement may only require some of the following sections depending on the specifics of the project and zoning action.

Requirement for a CTR may be waived if site is within ½ mile from Metrorail or ¼ mile from Priority Transit, total vehicle parking supply is below the max amount for its distance to transit (see Figure 10), site has a maximum of 100 parking spaces, a Baseline TDM Plan is implemented, site access and loading design are acceptable, an off-site safety or non-auto improvement is constructed, and long-term bike parking requirements are exceeded. Additional criteria may be found in the Low Impact Development Exemption section of the *CTR Guidelines*.

CATEGORY & GUIDELINES	APPLICANT PROPOSAL	DDOT COMMENTS
Strategic Planning Elements List any relevant planning efforts and demonstrate how the proposed action is consistent with District-wide planning documents, as well as localized studies. Note in any recommendations from these documents relevant to the development proposal. *See Section 3.1 of CTR Guidelines for a list of strategic planning documents. Details on additional relevant plans and studies may be provided by the DDOT Case Manager.*	The CTR will consider the suggested studies in the CTR guidelines in addition to the following studies located near the development: • Riggs Road and South Dakota Avenue Area Final Development Plan • South Dakota Avenue Transportation and Streetscape Study	DDOT concurs. GS 6/7/23: Noted.
Pedestrian Network Evaluate the condition of the existing pedestrian network and forecast the project's impact. Evaluation must include, at a minimum, critical walking routes, sidewalk widths, network completeness, and whether facilities meet DDOT and ADA	The study will review pedestrian walking routes to and from the site along with an assessment of facilities along these walking routes including the Fort Totten Metro station and on all pedestrian facilities within a quarter mile of the site following Section 3.2 of DDOT's CTR guidelines. The assessment will evaluate whether facilities meet DDOT and ADA standards. ☒ *Scoping Graphic: Pedestrian Study Area with Walking Routes to Transit, Schools, Activity Centers, and Neighborhood Amenities*	DDOT concurs. GS 6/7/23: Noted.

standards. Study area will include, at a minimum, all roadway segments and multi-use trails within a ¼ mile radius from the site, with a focus on connectivity to Metrorail, transit stops, schools, and activity centers, and other neighborhood amenities. *See Section 3.2 of the CTR Guidelines for more detailed guidance.*		
Bicycle Network Evaluate the condition of the existing bicycle network and forecast the project's impact, including to Capital Bikeshare (CaBi). Evaluation must include, at a minimum, bicycle network completeness, types of facilities, and adequacy of CaBi locations and availability. Study area will include, at a minimum, all roadway segments and multi-use trails within a ½ mile radius from the site, with a focus on connectivity to Metrorail, transit stops, schools, major activity centers, and other bicycle trails or facilities. Look for opportunities to convert traditional bike lanes to protected bike lanes. *See Section 3.3 of the CTR Guidelines for more detailed guidance.*	A review of existing and planned bicycle facilities serving the site within a half mile will be included with an assessment of connections between the site and major facilities, including a qualitative review of how cyclists going to and from the site will access major facilities (paths, bike lanes, etc.). The review of bicycle facilities will follow DDOT's CTR guidelines found in Section 3.3.1. ☒ *Scoping Graphic: Bicycle Study Area with Bicycling Routes to Transit, Schools, Activity Centers, and Other Bicycle Facilities and Trails*	DDOT concurs. GS 6/7/23: Noted.
Transit Network Evaluate, at a minimum, existing transit stop locations, adjacent bus routes and Metro headways, planned	The study will discuss transit routes and schedules, including headway and span of service for Metrorail stations within one (1) mile of the site and for WMATA bus stops within a half-mile of the site. The study will evaluate the sufficiency of the identified services and access to those services from a qualitative standpoint. Additionally, transit stop locations will be evaluated. Any planned transit improvements will be included in the report. All transit network evaluations will follow the guidance as outlined in Section 3.4 of DDOT's CTR guidelines.	DDOT concurs. GS 6/7/23: Noted.

transit improvements, and an assessment of existing transit stop conditions (e.g., ADA compliance, bus shelters, benches, wayfinding, etc.). Study area is 1.0 mile for Metrorail stations and ½ mile for Streetcar, Circulator, and buses. *See Section 3.4 of the CTR Guidelines for more detailed guidance.*	☒ *Scoping Graphic: Transit Study Area with Adjacent Routes and Stations* ☒ *Scoping Graphic: Screenshots from DDOT Transit Maps Showing Where the Site Falls within Buffers from Metrorail and Priority Transit*	
Safety Analysis Qualitatively evaluate safety conditions at intersections and along blocks within the vehicle study area using professional expertise. This might identify geometric design issues, missing critical signage or restrictions, or unforeseen pedestrian desire lines, for example. Perform a review of DDOT Vision Action Plan. Note whether any study intersections have been identified by DDOT as high crash locations, if any safety studies have been previously conducted, and discuss the recommendations. *See Section 3.5 of the CTR Guidelines for more detailed guidance.*	A qualitative evaluation of safety conditions within the proposed study area will be included in the CTR following the guidance set forth in Section 3.6 of DDOT's CTR guidelines.	DDOT concurs. GS 6/7/23: Noted.
Curbside Management Propose a preliminary curbside management plan that is consistent with current DDOT policies and practices. Curbside signage / restrictions reset with new development and the Applicant is	A curbside management plan will be provided in the CTR, including existing and proposed curbside designations within two (2) blocks of the site. ☒ *Scoping Graphic: Existing Curbside Designations (minimum 2 block radius of site)*	DDOT concurs. GS 6/7/23: Noted.

responsible for installing meters if required. The curbside management plan must delineate existing and proposed on-street parking designations/restrictions, including but not limited to pick-up/drop-off zones, loading zones, multi-space meters, RPP, and net change in number of on-street spaces as a result of the proposal. *See Section 3.6 of the CTR Guidelines for more detailed guidance.*		
Pick-Up and Drop-Off Plan Required for all new and existing schools and daycares with 20 or more students. May also be required for churches, hotels, or any other use expected to have significant pick-up/drop-off operations, as necessary. The plan will identify pick-up/drop-off locations and demonstrate adequate circulation so that the flow of bicycles and vehicles on adjacent street is not impeded and queueing does not occur through the pedestrian realm. *See Section 3.6.4 of the CTR Guidelines for more detailed guidance.*	A pick-up and drop-off plan is not necessary. The type and intensity of the development program is not expected to have significant pick-up and drop-off operations.	DDOT concurs. N/A GS 6/7/23: Noted.
On-Street Parking Occupancy Study This analysis is required if relief from 5 or more	Zoning relief for parking is not being sought, therefore this section is not applicable. ☐ *Scoping Graphic: Study Area and Block Faces*	DDOT concurs. N/A GS 6/7/23: Noted.

on-site vehicle parking spaces is being requested. It may also be required as part of a zoning or permitting case if DDOT has concerns about site-generated vehicles parking in adjacent residential neighborhoods. *See Section 3.6.5 of the CTR Guidelines for more detailed guidance on study periods and analysis requirements.*		
Parking Garage/Drive-Thru Queuing Analysis If site contains 150 or more vehicle parking spaces AND direct access to a public street OR site contains a drive-thru, evaluate on-site vehicle queueing demand and provide analysis demonstrating parking entrance/ramps or drive aisle can properly process vehicles without queuing onto public streets. *See Section 1.3.4 of CTR Guidelines for more detailed guidance.*	This section is not applicable given the number of total parking spaces is going down from existing conditions.	DDOT concurs. N/A GS 6/7/23: Noted.
Motorcoaches Propose methodology for data collection and analysis. Describe and show the parking locations, anticipated demand, existing areas on- and off-site for loading and unloading (and desired loading times restrictions, if any), and potential routes to and from designated truck routes. If on-street	No substantial motorcoach activity is anticipated.	DDOT concurs. N/A GS 6/7/23: Noted.

motorcoach parking is proposed, a plan for installation of signage and meters is required, subject to DDOT approval. This section is typically only required for uses that generate significant tourist activity (hotels, museums, cruises, concerts, etc.). *See Section 3.7 of the CTR Guidelines for more detailed guidance.*		

Section 4: TRAFFIC IMPACT ANALYSIS (TIA)

The TIA component of a CTR is required when a development generates 25 or more vehicle trips in the peak direction (higher of either inbound or outbound vehicles) during any of the critical peak hour periods, after mode split is applied. Existing site traffic, pass-by, TDM, internal capture or other reductions may not be applied when calculating whether a TIA is required. However, trip reductions may be used in the multi-modal trip generation summary and assignment of trips within the TIA, as appropriate and agreed to by DDOT. A standalone TIA may also be required if the project proposes a change to roadway capacity, operations, or directionality; has a site access challenge; or as otherwise deemed necessary by DDOT.

CATEGORY & GUIDELINES	APPLICANT PROPOSAL	DDOT COMMENTS
TIA Study Area and Data Collection Identify study intersections commensurate with the impact of the proposed project and the travel demand it will generate. Study area must include all major signalized and unsignalized intersections, intersections expected to realize large numbers of new traffic, and intersections that may experience changing traffic patterns. *See Sections 4.1 and 4.2 of the CTR Guidelines for more detailed guidance on study intersection selection and TMC count periods.*	The study area will include intersections where site impacts are most likely to occur, including: 1. All site access points 2. Adjacent streets/intersections at the boundary of the site 3. The nearest intersection(s) with an arterial street Weekday TMCs were collected from 6:30 to 9:30 AM and 4:00 to 7:00 PM in September 2022, including pedestrian and bicycle counts along with percent truck traffic. The TIA study area and data collection will comply with sections 4.1 and 4.2 of DDOT's CTR guidelines. The following study intersections are proposed: 1. South Dakota Avenue & Kennedy Street, NE 2. South Dakota Avenue & Jefferson Street, NE 3. South Dakota Avenue & Ingraham Street, NE 4. South Dakota Avenue & Hamilton Street, NE 5. South Dakota Avenue & Galloway, NE 6. South Dakota Avenue & Gallatin Street, NE 7. Hamilton Street, NE & North Site Entrance 8. Hamilton Street, 7th Street, & Ingraham Street, NE 9. Galloway Street, NE & South Site Entrance 10. Galloway Street & 7th Street, NE ☒ *Scoping Graphic: Proposed Study Intersections* ☒ *Will provide hard copies of TMCs in CTR appendix and electronic copies in DDOT spreadsheet format at time of submission.*	DDOT concurs. GS 6/7/23: Noted.

TIA Study Scenarios Propose an appropriate set of scenarios to analyze. These commonly include Existing, Background (No Build), Total Future, and Future with Mitigation. Note the anticipated build-out year and project phasing. *See Section 4.3 of CTR Guidelines for guidance on study scenarios.*	The following scenarios are proposed, following Section 4.3 of DDOT's CTR guidelines: ▪ Existing Conditions (2023) ▪ 2030 Future Conditions without the development (2030 Background Conditions) ▪ 2030 Future Conditions with the development (2030 Total Future Conditions – Full Buildout of Phase II)	DDOT concurs. GS 6/7/23: Noted.
TIA Methodology Propose an appropriate methodology for the capacity analysis including the type of software program to be used. Per DEM 38.3.5.1, HCM methodology will be used to determine Level of Service (LOS), v/c, and vehicle queue lengths. LOS must be reported by intersection approach and v/c by lane group. DDOT prefers Synchro 9 or newer software for capacity and queueing analyses. *See Section 4.4 of the CTR Guidelines for more detailed guidance. DDOT's required standard Synchro and SimTraffic inputs/settings are provided in Appendix H.*	Capacity analyses will be performed using Highway Capacity Manual (HCM) methodologies with an industry recognized software package. Analysis is proposed to be done in Synchro 11, reporting the results in delay and LOS using HCM 2000 methodologies. Proposed analysis periods include morning and afternoon commuter peak hours, using the system peaks at all study area intersections. Synchro files will be obtained from DDOT for use in the vehicular capacity analysis. Signal timings for the study area intersections will be obtained from DDOT. Field visits will be performed to update existing geometric information into the Synchro models. The capacity analysis results will show the average delay and the resulting LOS for each approach and for the overall intersection (where available), as well as the queuing results obtained from Synchro 11 for the average and 95th percentile queue for each lane group. • All LOS E or LOS F conditions per intersection and approach will be highlighted. • Mitigation measures will be proposed at intersections or approaches that degrade to an LOS E or F as a result of the development, or intersections or approaches operating under LOS E or F under background conditions that observe an increase in delay of greater than five (5) percent, when compared to the background scenario. • All locations where the 95th percentile queue length exceeds the length of storage will be highlighted. Locations will be noted where the proposed project causes the 95th percentile queue length to exceed the available capacity of a lane group when it does not in the background scenario. • Mitigation measures will be proposed at intersections where the proposed project causes any 95th percentile queue lengths that exceed the available capacity to experience an increase in length of greater than 150 feet along any lane group. An assessment of feasibility given the existing ROW at each location will be given for each mitigation measure. ☒ *Will provide copies of Synchro, SimTraffic, and other analysis software printouts in study appendix and electronic copies of analysis files at time of CTR submission.*	DDOT concurs. GS 6/7/23: Noted.
Transportation Network Improvements List and map all roadway, transit, bicycle, and pedestrian projects funded by DDOT or	A review of *moveDC*, the STIP, and adjacent background project commitments did not reveal any roadway, transit, bicycle, or pedestrian projects that will directly impact the proposed study area. ☐ *Scoping Graphic: Locations of Background Transportation Network Improvements and Anticipated Completion Years*	DDOT concurs. GS 6/7/23: Noted.

WMATA, or proffered by others, in the vicinity of the study area and expected to open for public use prior to the proposal's anticipated build-out year. Review the STIP, CLRP, and proffers/commitments for other nearby developments.

See Section 4.5 of the CTR Guidelines for more detailed guidance.

Background Development / Local Growth

List and map developments to be analyzed as local background growth. This will include known matter-of-right and zoning-approved developments within ¼ mile of site and others more than ¼ mile from site if their traffic is distributed through study intersections. Document the portions of developments anticipated to open by the projected build-out year.

See Section 4.6.1 of the CTR Guidelines for more detailed guidance.

The following background developments will be considered:

1. Art Place at Fort Totten 2nd Stage PUD
    a. Building B
    b. Building C
    c. Building D
2. 5543-5575 South Dakota Avenue NE

☒ *Scoping Graphic: Background Development Projects Near Study Area*

☐ *Scoping Table: Completion Amounts/Portions Occupied of Background Developments*

DDOT concurs.

GS 6/7/23: Noted.

Regional Traffic Growth

Propose a methodology to account for growth in regional travel demand passing through the study area. An appropriate methodology could include reviewing historic AADT traffic counts, MWCOG model

Volumes contained in the MWCOG regional model are proposed for analysis to develop an average annual growth rate for study area roadways. This methodology is preferred for calculating growth rates as it considers all future projects and developments in the COG model and allows for District growth rates by direction and time of day. Growth rates for this study are based on the differences between the years 2023 and 2030 COG model scenarios to determine an annual growth rate for the study scenarios. Where the COG model showed negative or minimal growth, a conservative 0.1% per year minimum growth was assumed. A maximum growth rate of 2.0% was used. Based on this methodology, the following is a summary of the growth rates to be used:

Roadway	Direction	Proposed Annual Growth Rate Between 2023 and 2030 [1]		Proposed Total Growth Between 2023 and 2030	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
South Dakota Avenue NE	NB	0.10%	0.30%	0.70%	2.12%

DDOT concurs.

GS 6/7/23: Noted.

growth rates, data from other planning studies, or recently conducted nearby CTRs. These sources should only be used as a guide.

Generally, maximum annually compounding growth rates of 0.5% in peak direction and 2.0% in non-peak direction are acceptable. Adjustments to the rates may be necessary depending on the amount of traffic assumed from local background developments or if there were recent changes to the transportation network.

See Section 4.6.2 of the CTR Guidelines for more detailed guidance.

	SB	0.48%	0.50%	3.41%	3.55%
Hamilton Street NE	EB	0.98%	0.33%	7.07%	2.33%
	WB	0.50%	0.50%	3.55%	3.55%
Galloway Street NE	EB	0.50%	1.09%	3.55%	7.88%
	WB	1.05%	0.50%	7.59%	3.55%
Gallatin Street NE	EB	0.10%	0.12%	0.70%	0.84%
	WB	0.23%	0.10%	1.62%	0.70%

[1] These rates were applied to volumes grown from 2023 existing conditions. Rates are based on MWCOG's currently adopted regional transportation model and/or AADT data.

☒ *Scoping Table and Graphic: Projected Regional Growth Assumptions (dependent on methodology), Show Growth rates by Road, Direction, and Time of Day*

Trip Distribution

Provide sources and justification for proposed percentage distribution of site-generated trips. Additionally, document proposed pass-by distributions and the re-routing of existing or future vehicles based on any changes to the transportation network. Percentage distributions must be shown turning at intersections throughout the transportation network and at site driveways and garage entrances to ensure appropriate routing assumptions.

The agreed upon trip distribution methodology may not be revised between scoping and CTR submission without amending this scoping form and

In the 2016 UDC TDM Campus Survey, existing travel patterns in the study area and trip distribution percentages from student and employee home ZIP codes were collected in order to determine the trip distribution for site-generated trips. In the survey, students were distinguished between Flagship students (Van Ness campus) and Community College students (satellite campuses). Based on this review, the home ZIP codes of Community College students were used to establish distributions for site-generated trips through the study area intersections.

A graphic showing the proposed trip distributions is provided in the scoping attachments.

☒ *Scoping Graphic(s): Percentage Distribution by Land Use, Direction, Time of Day (must be shown turning at intersections and driveways)*

DDOT 5/24/23: Did the Community College students survey include both CC Campuses on both N Cap and South Dakota? Was there a further breakdown for the current Lamond-Riggs campus only? If not, provide justifications or adjustments made to estimate ZIP codes/trip distributions for the Lamond-Riggs campus.

GS 6/7/23: The survey did not provide a more detailed breakdown for the Lamond-Riggs Community College student population. The available data represents the best approximation for the overall population at the UDC satellite

receiving concurrence by DDOT Case Manager. *See Section 4.7 of the CTR Guidelines for more detailed guidance.*		campuses, including the Lamond-Riggs campus. DDOT 6/21/23: DDOT concurs. --- DDOT 5/24/23: Please show on the distribution graphic the expected trip distribution at each site driveway. GS 6/7/23: The expected trip distribution at each driveway will be based on the parking spaces provided at each of the two (2) surface parking lots. The updated trip distribution graphic will be included in the CTR. DDOT 6/21/23: DDOT concurs.

Section 5: MITIGATION

The completed CTR must detail all proposed mitigations. The purpose of discussing mitigation at the scoping stage is to highlight DDOT's Significant Impact Policy, DDOT's approach to mitigation, and to give the Applicant an opportunity to gain initial feedback on potential mitigations that are under consideration. Any mitigation strategies discussed and included in the *Scoping Form* are considered non-binding until formally evaluated in the study and committed to in documentation submitted as part of the case record.

CATEGORY & GUIDELINES	APPLICANT PROPOSAL	DDOT COMMENTS
DDOT Significant Impact Policy DDOT has two primary impact mitigation tests for development projects: 1) off-street vehicle parking supply, and 2) capacity impacts at intersections.	☒ *The Applicant acknowledges DDOT's Significant Impact Policy in Section 5.1 of the CTR Guidelines.* ☒ *The study will comply with all other policies in the CTR Guidelines not explicitly documented in the Applicant Proposal or DDOT Comments columns.* ☒ *The study will include all of the required graphics, tables, and deliverables for the relevant sections determined during scoping, as shown in Figure 7 of the CTR Guidelines.*	DDOT concurs. GS 6/7/23: Noted.

See Section 5.1 of the CTR Guidelines for detailed policies and metrics for each of the two impact tests.		
DDOT's Approach to Mitigation DDOT's approach to mitigation prioritizes (in order of preference) optimal site design, reducing vehicle parking, implementing TDM strategies, making non-automotive network improvements, and making a monetary contribution to DDOT's Mitigation Fund for non-auto improvements, before considering options that increase roadway capacity or alter roadway operations. *See Section 5.2 and Figure 18 of the CTR Guidelines for more detailed guidance on mitigation selection.*	☒ *The Applicant acknowledges DDOT's approach to mitigation in Section 5.2 of the CTR Guidelines.*	DDOT concurs. GS 6/7/23: Noted.
Transportation Demand Management (TDM) A TDM Plan is typically required to offset site-generated impacts to the transportation network or in situations where a site provides more parking than DDOT determines is practical for the use and	☒ *The study will include at least a Baseline TDM Plan. The TDM plan will increase to depending on the parking supply and other impacts identified in the study.*	DDOT concurs. GS 6/7/23: Noted.

surrounding context. Document all existing TDM strategies being implemented on-site (even outside of a formal TDM Plan) and those being proposed and committed to by the Applicant. Elements of the TDM Plan included in CTR must be broken down by land use and user. *See Section 5.3 of the CTR Guidelines for more detailed guidance. Sample TDM plans by land use and tier can be found in Appendix C.*		
Performance Monitoring Plan (PMP) DDOT may require a PMP in situations where anticipated vehicle trips are large in magnitude, unpredictable, or necessitate a vehicle trip cap. Typically, this is required for campus plans, schools, or large developments expected to have a significant amount of single occupancy vehicle trips. Document any existing performance monitoring Plans in effect and any proposed changes. *See Section 5.4 of the CTR Guidelines for more detailed guidance. Sample PMPs can be found in Appendix D.*	A PMP similar to the one agreed to for UDC's Van Ness CMP will be included in the CTR.	DDOT concurs. GS 6/7/23: Noted. DDOT 6/21/23: Noted. Work with the DDOT Case Manager on the development of the TDM Plan and PMP prior to the zoning hearing.

Roadway Operational and Geometric Changes Describe all proposed roadway operational and geometric changes in CTR with supporting analysis and warrants in the study appendix. Detail must be provided on any ROW implications of proposed mitigations. Note any preliminary ideas being considered. *See Section 5.7 of the CTR Guidelines for more detailed guidance.*	Roadway operational and geometric changes are not being proposed in CTR as a result of this project.	DDOT concurs. GS 6/7/23: Noted.

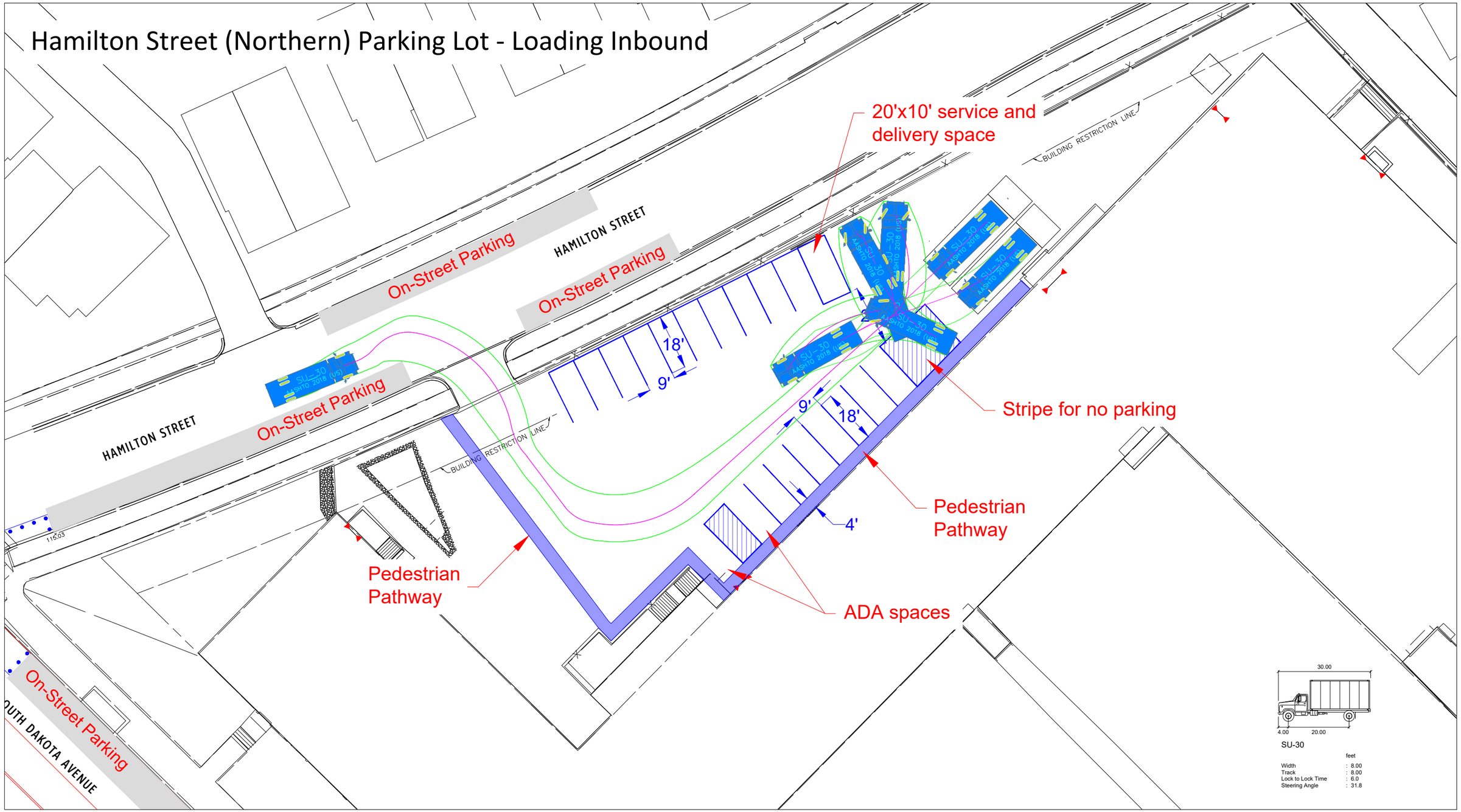
Section 6: ADDITIONAL TOPICS FOR DISCUSSION DURING SCOPING

CATEGORY & GUIDELINES	APPLICANT PROPOSAL	DDOT COMMENTS
ANC Discussions and Feedback Provide an update on the status of Community Benefits Agreement (CBA), any on-going ANC discussions/meetings, and any concerns expressed by the community. DDOT can provide ideas and a feasibility check for transportation items to be included in the CBA.		
Miscellaneous Items for Discussion Any relevant on-going conversations with DOEE, SHPO, DMPED, GSA, NPS, neighboring jurisdictions, Historic Preservation, etc.?		

Seeking direction on other types of analyses such as traffic calming, TOPP, TMP, IMR/IJR, etc.? Anything unusual proposed not covered under other sections, such as air-rights, right-of-way actions, removal from Highway Plan, removal of BRLs, or construction under or close to a bridge?		

B. Truck Turning Maneuvers

Hamilton Street (Northern) Parking Lot - Loading Inbound



GOROVE SLADE
Transportation Planners and Engineers

UDC Lamond-Riggs Campus Master Plan: Truck Maneuvering Analysis

Cozen O'Connor
July 11, 2023
Sheet 1 of 4

DRAFT

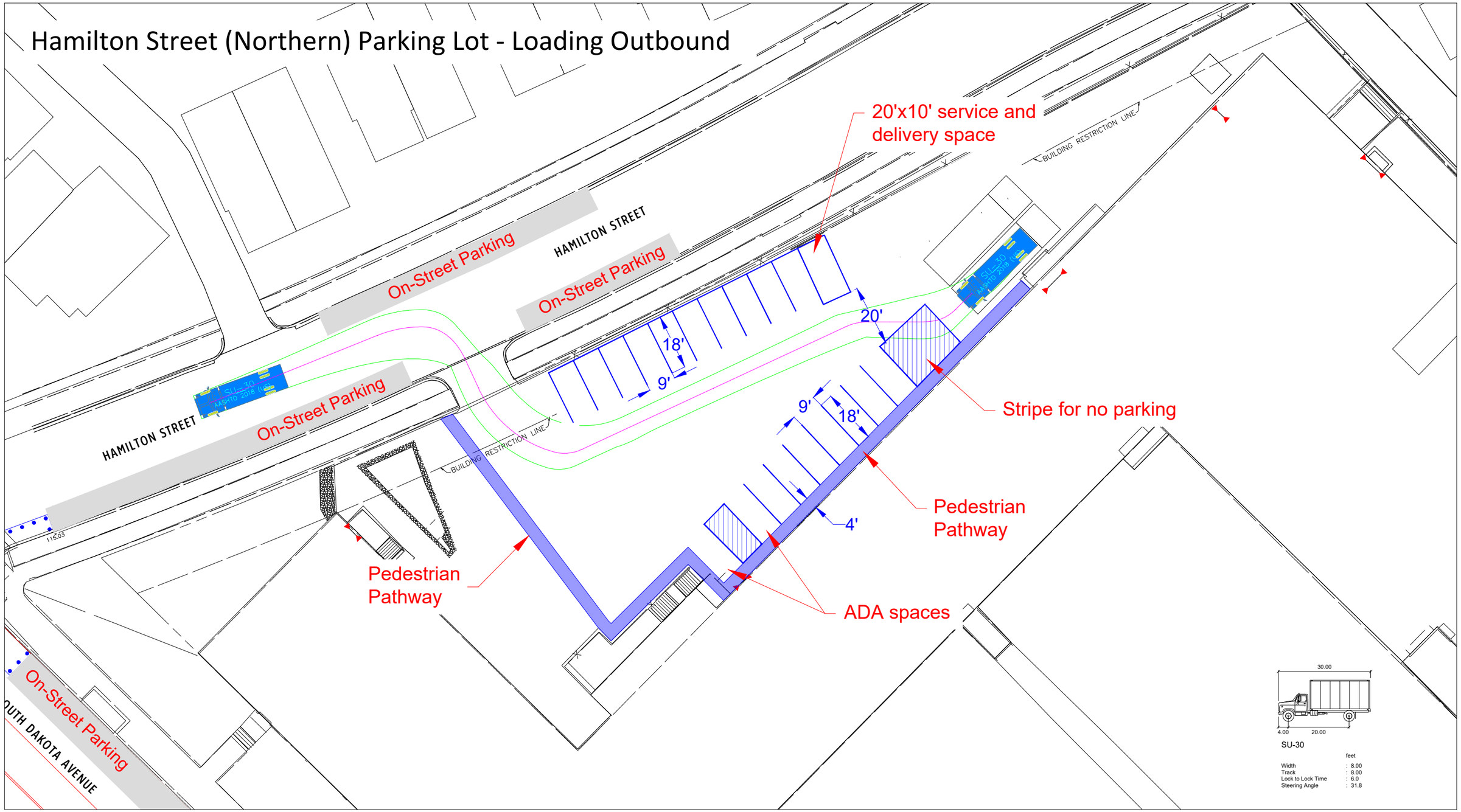
5171 South Dakota Ave NE
Washington, DC 20017

N

SCALE: 1" = 30'

P:\2919-003 UDC Lamond Riggs CMP\CAD\12.16.22 Loading Turns\Loading Turns - 6.30.23 Ped Path-Striping.dwg - 8/22/2023 6:12 PM

Hamilton Street (Northern) Parking Lot - Loading Outbound



GOROVE SLADE
Transportation Planners and Engineers

UDC Lamond-Riggs Campus Master Plan: Truck Maneuvering Analysis

Cozen O'Connor
July 11, 2023
Sheet 2 of 4

DRAFT

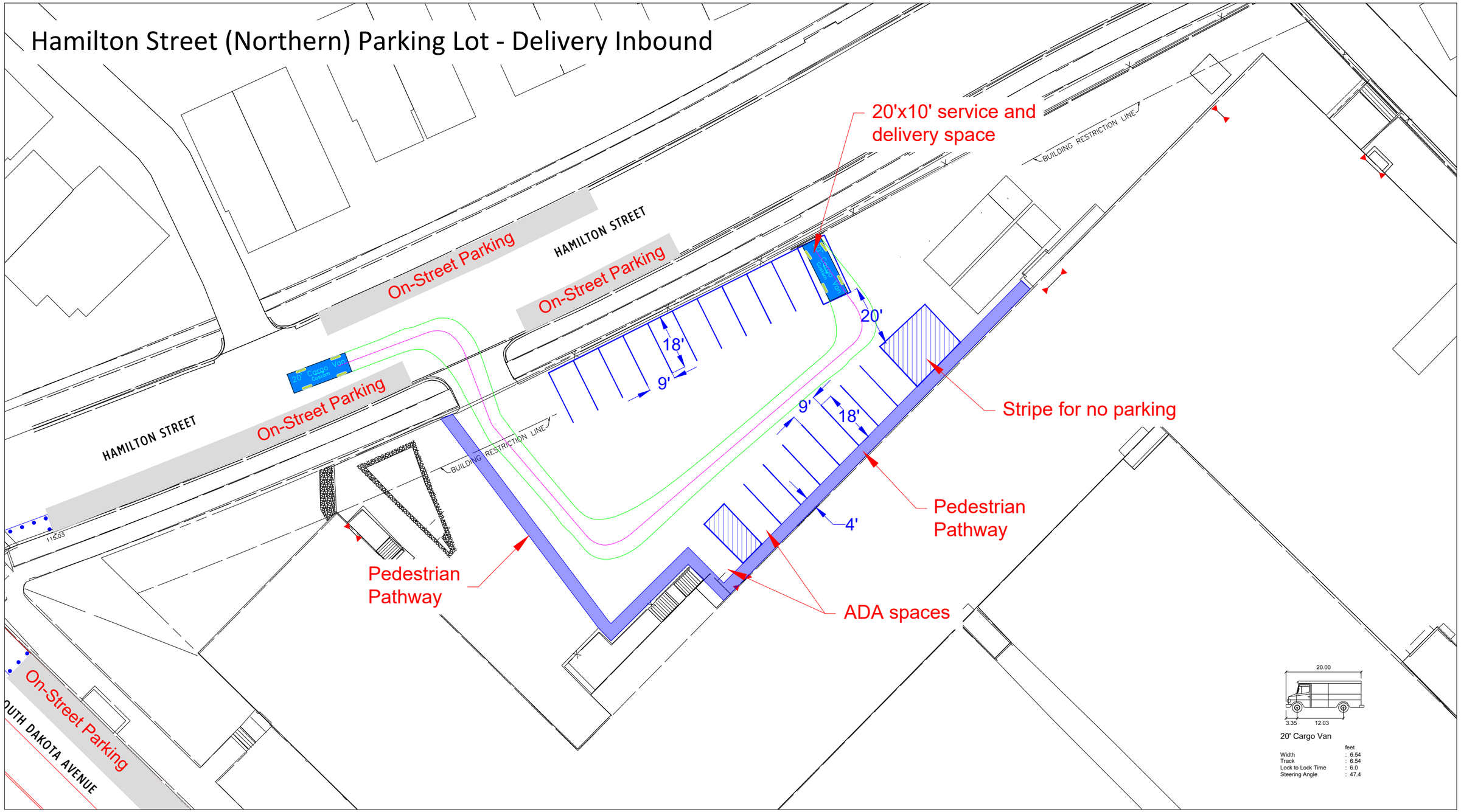
5171 South Dakota Ave NE
Washington, DC 20017

P:\2919-003 UDC Lamond Riggs CMP\CAD\12.16.22 Loading Turns\Loading Turns - 6.30.23 Ped Path-Striping.dwg - 8/22/2023 6:12 PM

N

SCALE: 1" = 30'

Hamilton Street (Northern) Parking Lot - Delivery Inbound



GOROVE SLADE
Transportation Planners and Engineers

UDC Lamond-Riggs Campus Master Plan: Truck Maneuvering Analysis

DRAFT

Cozen O'Connor
July 11, 2023
Sheet 3 of 4

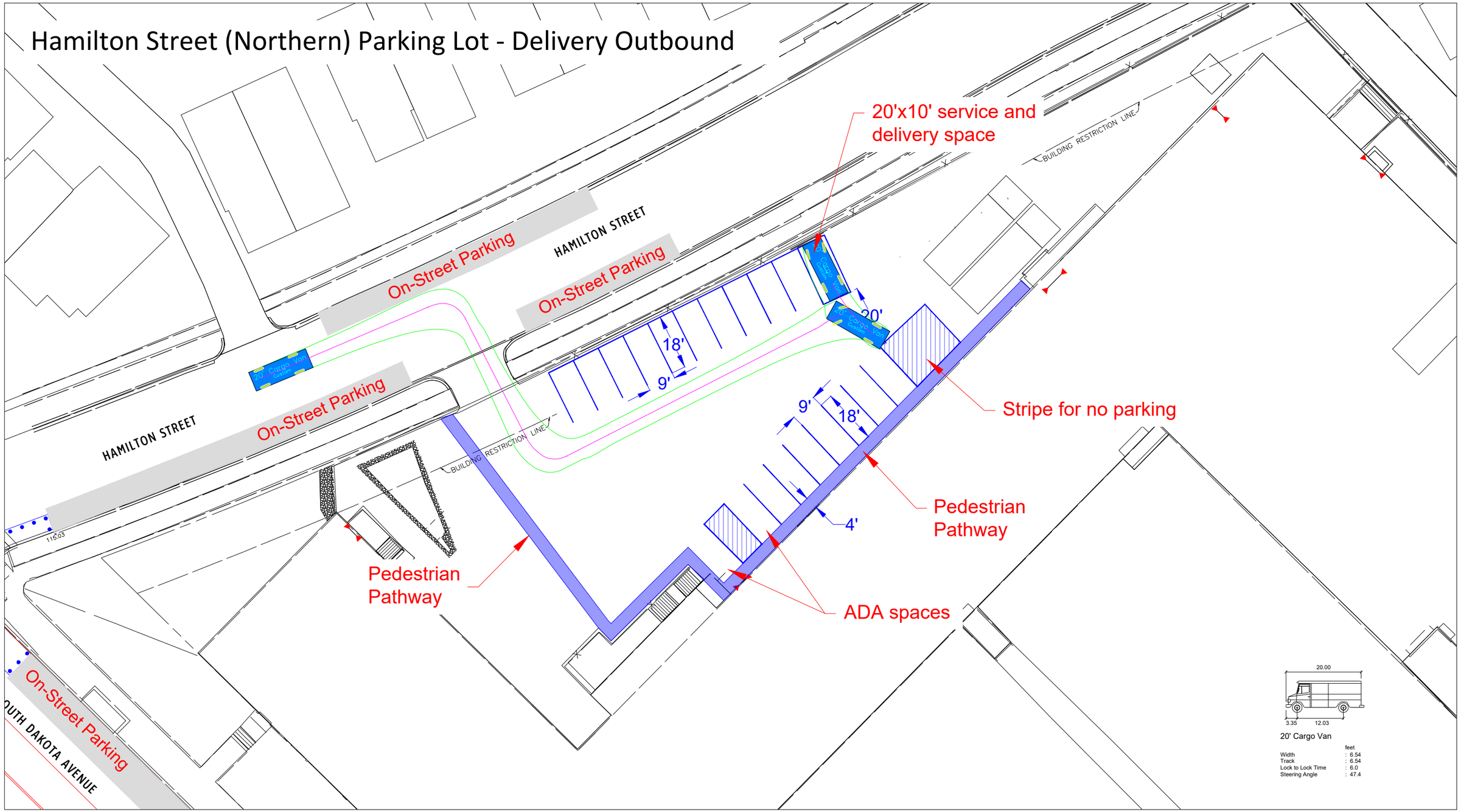
5171 South Dakota Ave NE
Washington, DC 20017

N

SCALE: 1" = 30'

P:\2919-003 UDC Lamond Riggs CMP\CAD\12.16.22 Loading Turns\Loading Turns - 6.30.23 Ped Path-Striping.dwg - 8/22/2023 6:12 PM

Hamilton Street (Northern) Parking Lot - Delivery Outbound



GOROVE SLADE
Transportation Planners and Engineers

UDC Lamond-Riggs Campus Master Plan: Truck Maneuvering Analysis

Cozen O'Connor
July 11 2023
Sheet 4 of 4

DRAFT

5171 South Dakota Ave NE
Washington, DC 20017

N

SCALE: 1" = 30'

P:\2919-003 UDC Lamond Riggs CMP\CAD\12.16.22 Loading Turns\Loading Turns - 6.30.23 Ped Path-Striping.dwg - 8/22/2023 6:12 PM

C. Mode Split and Trip Generation Information

Mode Split Assumptions

Student Component

Description of residential component of project:

The UDC Bertie Backus campus is anticipated to have 3,000 students by 2030.

Pertinent Mode Split data from other sources:

Information Source	Mode						
	SOV	Carpool	Transit	Bike	Walk	Telecommute	Other
2011 UDC Student Center Market Research Campus Survey	27.8%		64.5%	2.0%	5.7%	---	---
2016 UDC Campus TDM Survey	33.6%		59.4%	0.9%	3.9%	---	2.2%
2022/2023 Bertie Backus Campus Survey Preliminary Result	17.2%		Results to be updated once the survey is finalized				

Mode Split assumed in TIS:

Land Use	Mode				
	Drive	Transit	Bike	Walk	Telecommute/Other
Student Mode Split	17%	75%	2%	6%	---

Faculty/Staff Component

Description of residential component of project:

The UDC Bertie Backus campus is anticipated to have 110 faculty/staff by 2030.

Pertinent Mode Split data from other sources:

Information Source	Mode						
	SOV	Carpool	Transit	Bike	Walk	Telecommute	Other
2011 UDC Student Center Market Research Campus Survey	61.6%		31.5%	4.1%	1.4%	---	---
2016 UDC Campus TDM Survey	53.7%		39.9%	1.3%	2.5%	---	2.6%

Mode Split for Staff:

Use	Mode				
	Drive	Transit	Bike	Walk	Telecommute/Other
Faculty/Staff Mode Split	50%	45%	3%	2%	---

Mode Split assumed in TIS:

Use	Mode				
	Drive	Transit	Bike	Walk	Telecommute/Other
Student/Faculty/Staff	20%	72%	2%	6%	---

UDC Lamond-Riggs Campus- Proposed Site Trip Generation

Approximately 3,000 students

Step 1: Base trip generation using ITEs' 11th Edition *Trip Generation*

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	Total
Junior/Community College (students)	540	3000	267 veh/hr	63 veh/hr	330 veh/hr	185 veh/hr	145 veh/hr	330 veh/hr	3,450 veh
		Calculation Details:	*81%*	*19%*	*=0.11X*	*56%*	*44%*	*=0.11X*	*=1.15X*

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			
		In	Out	Total	In	Out	Total	Total
Junior/Community College (students)	1.18 ppl/veh	315 ppl/hr	74 ppl/hr	389 ppl/hr	218 ppl/hr	171 ppl/hr	389 ppl/hr	4,071 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	Total
Junior/Community College (students)	Auto	20%	63 ppl/hr	15 ppl/hr	78 ppl/hr	44 ppl/hr	34 ppl/hr	78 ppl/hr	814 ppl
Junior/Community College (students)	Transit	72%	227 ppl/hr	53 ppl/hr	280 ppl/hr	157 ppl/hr	123 ppl/hr	280 ppl/hr	2,931 ppl
Junior/Community College (students)	Bike	2%	6 ppl/hr	2 ppl/hr	8 ppl/hr	4 ppl/hr	4 ppl/hr	8 ppl/hr	81 ppl
Junior/Community College (students)	Walk	6%	19 ppl/hr	4 ppl/hr	23 ppl/hr	13 ppl/hr	10 ppl/hr	23 ppl/hr	245 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			
		In	Out	Total	In	Out	Total	Total
Junior/Community College (students)	1.18 ppl/veh	53 veh/hr	13 veh/hr	66 veh/hr	37 veh/hr	29 veh/hr	66 veh/hr	690 veh

Trip Gen Summary for proposed development

Mode	AM Peak Hour			PM Peak Hour			
	In	Out	Total	In	Out	Total	Total
Auto	53 veh/hr	13 veh/hr	66 veh/hr	37 veh/hr	29 veh/hr	66 veh/hr	690 veh
Transit	227 ppl/hr	53 ppl/hr	280 ppl/hr	157 ppl/hr	123 ppl/hr	280 ppl/hr	2,931 ppl
Bike	6 ppl/hr	2 ppl/hr	8 ppl/hr	4 ppl/hr	4 ppl/hr	8 ppl/hr	81 ppl
Walk	19 ppl/hr	4 ppl/hr	23 ppl/hr	13 ppl/hr	10 ppl/hr	23 ppl/hr	245 ppl

UDC Lamond-Riggs Campus- Existing Site Trip Generation

Approximately 1,499 students

Step 1: Base trip generation using ITEs' 11th Edition *Trip Generation*

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	Total
Junior/Community College (students)	540	1499	134 veh/hr	31 veh/hr	165 veh/hr	92 veh/hr	73 veh/hr	165 veh/hr	1,724 veh
		Calculation Details:	*81%*	*19%*	*=0.11X*	*56%*	*44%*	*=0.11X*	*=1.15X*

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			
		In	Out	Total	In	Out	Total	Total
Junior/Community College (students)	1.18 ppl/veh	158 ppl/hr	37 ppl/hr	195 ppl/hr	109 ppl/hr	86 ppl/hr	195 ppl/hr	2,034 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	Total
Junior/Community College (students)	Auto	20%	32 ppl/hr	7 ppl/hr	39 ppl/hr	22 ppl/hr	17 ppl/hr	39 ppl/hr	407 ppl
Junior/Community College (students)	Transit	72%	114 ppl/hr	26 ppl/hr	140 ppl/hr	78 ppl/hr	62 ppl/hr	140 ppl/hr	1,464 ppl
Junior/Community College (students)	Bike	2%	3 ppl/hr	1 ppl/hr	4 ppl/hr	2 ppl/hr	2 ppl/hr	4 ppl/hr	41 ppl
Junior/Community College (students)	Walk	6%	9 ppl/hr	3 ppl/hr	12 ppl/hr	7 ppl/hr	5 ppl/hr	12 ppl/hr	122 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			
		In	Out	Total	In	Out	Total	Total
Junior/Community College (students)	1.18 ppl/veh	27 veh/hr	6 veh/hr	33 veh/hr	19 veh/hr	14 veh/hr	33 veh/hr	345 veh

Trip Gen Summary for proposed development

Mode	AM Peak Hour			PM Peak Hour			
	In	Out	Total	In	Out	Total	Total
Auto	27 veh/hr	6 veh/hr	33 veh/hr	19 veh/hr	14 veh/hr	33 veh/hr	345 ppl
Transit	114 ppl/hr	26 ppl/hr	140 ppl/hr	78 ppl/hr	62 ppl/hr	140 ppl/hr	1,464 ppl
Bike	3 ppl/hr	1 ppl/hr	4 ppl/hr	2 ppl/hr	2 ppl/hr	4 ppl/hr	41 ppl
Walk	9 ppl/hr	3 ppl/hr	12 ppl/hr	7 ppl/hr	5 ppl/hr	12 ppl/hr	122 ppl

D. Existing Turning Movement Counts

Gorove/Slade Associates - Multimodal Turning Movement Count Report

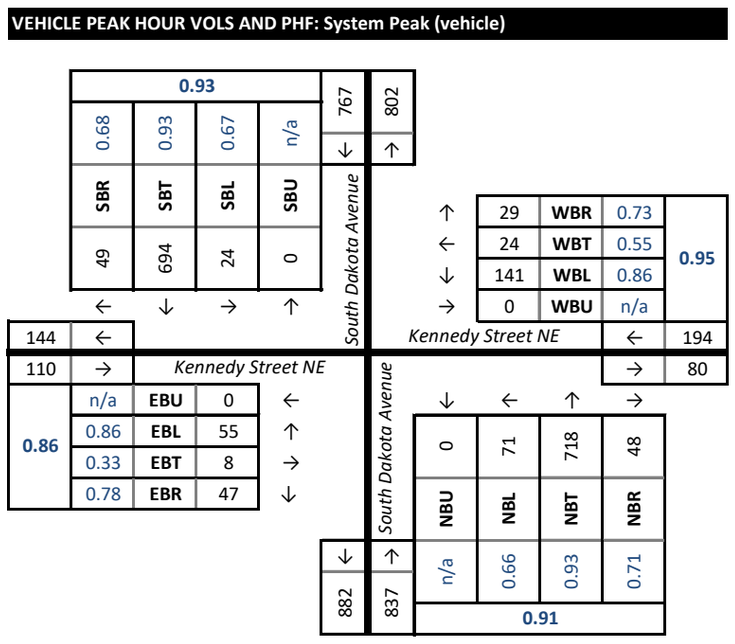
Project Name : UDC Bertie Backus CMP
Project # : 2919-001
Location District of Columbia
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, September 20, 2022
Weather: Partly Cloudy

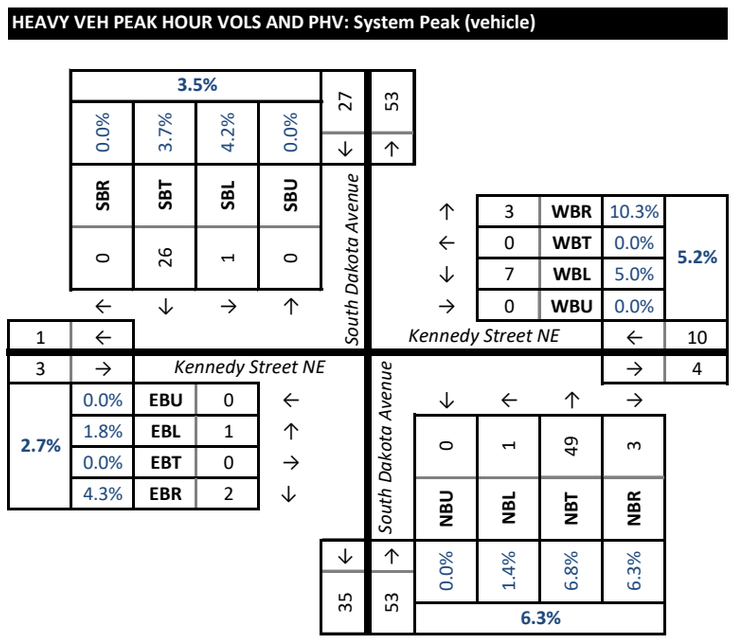
Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 07:45 AM to 08:45 AM
System Peak Hour (all vehicles): 07:45 AM to 08:45 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. South Dakota Avenue & Kennedy Street NE

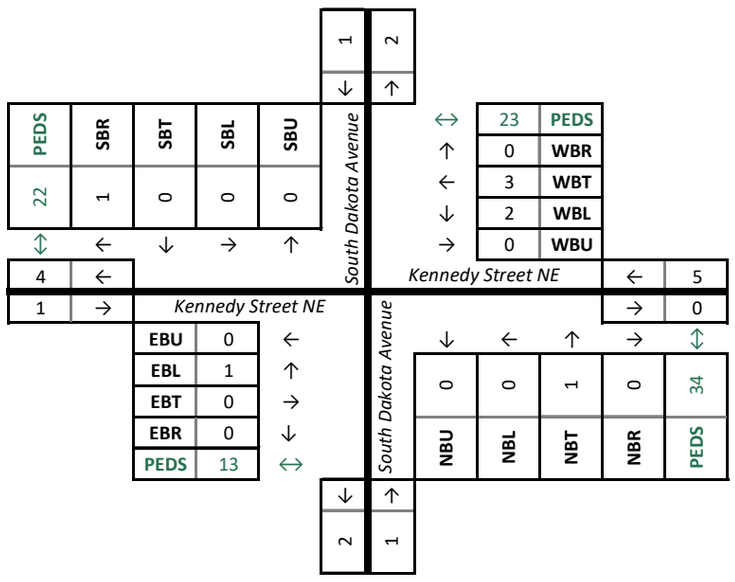
ALL VEHICLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Kennedy Street NE					South Dakota Avenue					Kennedy Street NE				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM	to 06:45 AM	0	5	53	7	1	0	7	0	9	4	0	5	129	4	3	0	2	0	0	0
06:45 AM	to 07:00 AM	0	4	110	7	2	0	9	1	3	4	0	3	147	15	1	0	1	0	1	1
07:00 AM	to 07:15 AM	0	8	96	13	0	0	20	3	7	3	0	3	175	14	1	0	2	1	4	5
07:15 AM	to 07:30 AM	0	8	103	5	8	0	26	3	11	5	0	7	164	12	2	0	2	1	3	2
07:30 AM	to 07:45 AM	0	4	131	11	4	0	25	7	6	7	0	23	201	8	2	0	10	2	12	9
07:45 AM	to 08:00 AM	0	4	172	18	9	0	30	5	10	11	0	20	194	17	4	0	14	0	10	3
08:00 AM	to 08:15 AM	0	7	154	17	5	0	37	4	8	8	0	27	184	8	6	0	16	1	15	7
08:15 AM	to 08:30 AM	0	9	187	11	8	0	33	11	5	7	0	12	158	12	1	0	16	1	15	5
08:30 AM	to 08:45 AM	0	4	181	3	1	0	41	4	6	8	0	12	182	11	2	0	9	6	7	7
08:45 AM	to 09:00 AM	0	11	173	11	5	0	18	4	6	6	0	7	173	12	2	0	5	1	4	2
09:00 AM	to 09:15 AM	0	9	158	6	1	0	10	0	2	3	0	2	126	6	0	0	4	3	4	3
09:15 AM	to 09:30 AM	0	9	153	6	1	0	12	0	2	3	0	5	125	6	0	0	3	1	1	0
09:30 AM	to 09:45 AM																				
09:45 AM	to 10:00 AM																				
10:00 AM	to 10:15 AM																				
10:15 AM	to 10:30 AM																				
10:30 AM	to 10:45 AM																				
10:45 AM	to 11:00 AM																				
11:00 AM	to 11:15 AM																				
11:15 AM	to 11:30 AM																				
SYSTEM PEAK HR (VEH.)		767				23	194				34	837				13	110				22
07:45 AM	to 08:45 AM	0	24	694	49		0	141	24	29		0	71	718	48		0	55	8	47	
Peak Hour Factor (PHF)	Overall	U	Left	Thru	Right	SB	U	Left	Thru	Right	WB	U	Left	Thru	Right	NB	U	Left	Thru	Right	EB
	0.97	n/a	0.67	0.93	0.68	0.93	n/a	0.86	0.55	0.73	0.95	n/a	0.66	0.93	0.71	0.91	n/a	0.86	0.33	0.78	0.86



HEAVY VEHICLES (FHWA 4+)	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Kennedy Street NE					South Dakota Avenue					Kennedy Street NE				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM	to 06:45 AM	0	0	0	0		0	0	0	0		0	0	7	1		0	0	0	0	
06:45 AM	to 07:00 AM	0	0	2	0		0	1	0	0		0	0	18	1		0	0	0	0	
07:00 AM	to 07:15 AM	0	0	2	1		0	0	0	1		0	0	9	3		0	1	0	0	
07:15 AM	to 07:30 AM	0	0	2	0		0	1	0	1		0	0	11	2		0	0	0	0	
07:30 AM	to 07:45 AM	0	0	5	0		0	0	0	0		0	0	11	0		0	0	0	1	
07:45 AM	to 08:00 AM	0	0	4	0		0	0	0	1		0	0	14	1		0	0	0	0	
08:00 AM	to 08:15 AM	0	0	6	0		0	4	0	1		0	1	11	0		0	0	0	1	
08:15 AM	to 08:30 AM	0	1	5	0		0	0	0	0		0	0	13	2		0	0	0	1	
08:30 AM	to 08:45 AM	0	0	11	0		0	3	0	1		0	0	11	0		0	1	0	0	
08:45 AM	to 09:00 AM	0	0	12	0		0	0	0	0		0	0	6	1		0	0	0	1	
09:00 AM	to 09:15 AM	0	0	5	1		0	0	0	0		0	0	11	0		0	0	0	0	
09:15 AM	to 09:30 AM	0	2	9	0		0	0	0	0		0	0	13	0		0	0	0	0	
09:30 AM	to 09:45 AM																				
09:45 AM	to 10:00 AM																				
10:00 AM	to 10:15 AM																				
10:15 AM	to 10:30 AM																				
10:30 AM	to 10:45 AM																				
10:45 AM	to 11:00 AM																				
11:00 AM	to 11:15 AM																				
11:15 AM	to 11:30 AM																				
SYSTEM PEAK HR (VEH.)		27					10					53					3				
07:45 AM	to 08:45 AM	0	1	26	0		0	7	0	3		0	1	49	3		0	1	0	2	
Heavy Vehicle % (PHV):		0.0%	4.2%	3.7%	0.0%	3.5%	0.0%	5.0%	0.0%	10.3%	5.2%	0.0%	1.4%	6.8%	6.3%	6.3%	0.0%	1.8%	0.0%	4.3%	2.7%
INT. PEAK HR (HV ONLY)		27					10					53					3				
07:45 AM	to 08:45 AM	0	1	26	0		0	7	0	3		0	1	49	3		0	1	0	2	
Heavy Vehicle % (PHV):		0.0%	4.2%	3.7%	0.0%	3.5%	0.0%	5.0%	0.0%	10.3%	5.2%	0.0%	1.4%	6.8%	6.3%	6.3%	0.0%	1.8%	0.0%	4.3%	2.7%



BICYCLES	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	South Dakota Avenue				Kennedy Street NE				South Dakota Avenue				Kennedy Street NE			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM	to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	to 07:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:15 AM	to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	to 07:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:45 AM	to 08:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
08:00 AM	to 08:15 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
08:15 AM	to 08:30 AM	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0
08:30 AM	to 08:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
08:45 AM	to 09:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	to 09:15 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
09:15 AM	to 09:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	to 09:45 AM																
09:45 AM	to 10:00 AM																
10:00 AM	to 10:15 AM																
10:15 AM	to 10:30 AM																
10:30 AM	to 10:45 AM																
10:45 AM	to 11:00 AM																
11:00 AM	to 11:15 AM																
11:15 AM	to 11:30 AM																
SYSTEM PEAK HR (VEH.)		1				5				1				1			
07:45 AM	to 08:45 AM	0	0	0	1	0	2	3	0	0	0	1	0	0	1	0	0
INT. PEAK HR (BIKES)		1				4				2				1			
07:30 AM	to 08:30 AM	0	0	0	1	0	2	2	0	0	1	1	0	0	1	0	0



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : UDC Bertie Backus CMP
Project # : 2919-001
Location District of Columbia
Data Source: Gorove/Slade Associates, Inc.

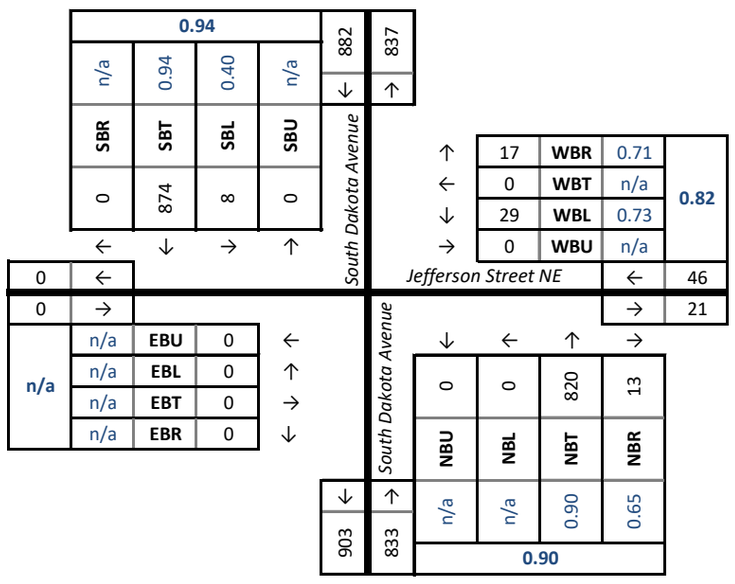
Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, September 20, 2022
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 07:45 AM to 08:45 AM
System Peak Hour (all vehicles): 07:45 AM to 08:45 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. South Dakota Avenue & Jefferson Street NE/

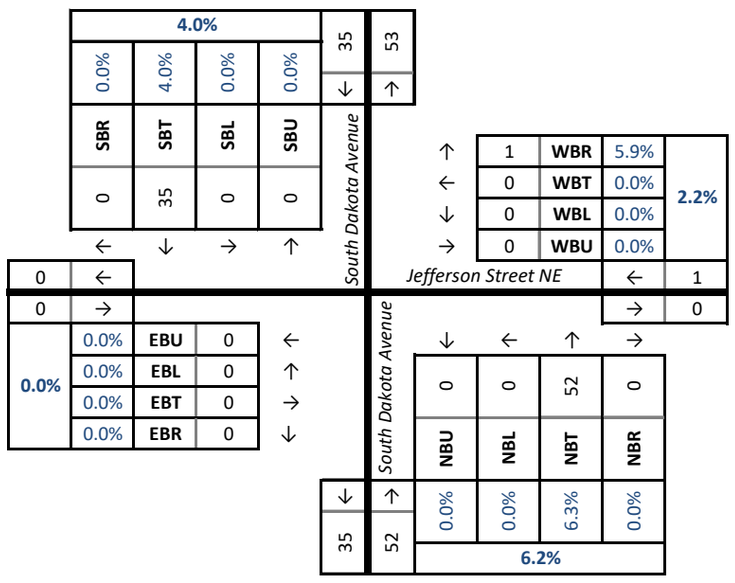
ALL VEHICLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Jefferson Street NE					South Dakota Avenue									
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM	to 06:45 AM	0	0	60	0	0	0	1	0	1	2	0	0	137	1	0	0	0	0	0	0
06:45 AM	to 07:00 AM	0	0	120	0	0	0	1	0	1	6	0	0	164	2	0	0	0	0	0	0
07:00 AM	to 07:15 AM	0	1	119	0	0	0	3	0	1	5	0	0	191	1	1	0	0	0	0	0
07:15 AM	to 07:30 AM	0	0	132	0	1	0	8	0	4	8	0	0	179	3	0	0	0	0	0	0
07:30 AM	to 07:45 AM	0	0	168	0	1	0	10	0	2	6	0	0	229	1	0	0	0	0	0	0
07:45 AM	to 08:00 AM	0	0	212	0	0	0	7	0	3	11	0	0	228	4	0	0	0	0	0	0
08:00 AM	to 08:15 AM	0	1	205	0	2	0	10	0	4	8	0	0	215	2	0	0	0	0	0	0
08:15 AM	to 08:30 AM	0	2	233	0	0	0	10	0	4	8	0	0	178	2	0	0	0	0	0	0
08:30 AM	to 08:45 AM	0	5	224	0	0	0	2	0	6	10	0	0	199	5	0	0	0	0	0	0
08:45 AM	to 09:00 AM	0	2	193	0	0	0	5	0	2	5	0	0	190	7	0	0	0	0	0	0
09:00 AM	to 09:15 AM	0	2	170	0	0	0	6	0	2	3	0	0	132	4	0	0	0	0	0	0
09:15 AM	to 09:30 AM	0	2	164	0	0	0	4	0	5	4	0	0	130	1	0	0	0	0	0	0
09:30 AM	to 09:45 AM																				
09:45 AM	to 10:00 AM																				
10:00 AM	to 10:15 AM																				
10:15 AM	to 10:30 AM																				
10:30 AM	to 10:45 AM																				
10:45 AM	to 11:00 AM																				
11:00 AM	to 11:15 AM																				
11:15 AM	to 11:30 AM																				
SYSTEM PEAK HR (VEH.)		882				2	46				37	833				0	0				0
07:45 AM	to 08:45 AM	0	8	874	0		0	29	0	17		0	0	820	13		0	0	0	0	
Peak Hour Factor (PHF)	Overall 0.97	U n/a	Left 0.40	Thru 0.94	Right n/a	SB 0.94	U n/a	Left 0.73	Thru n/a	Right 0.71	WB 0.82	U n/a	Left n/a	Thru 0.90	Right 0.65	NB 0.90	U n/a	Left n/a	Thru n/a	Right n/a	EB n/a

VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



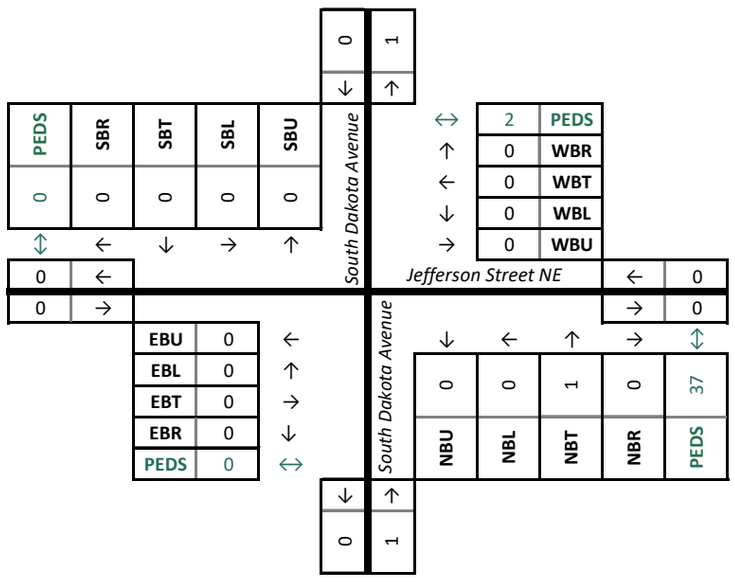
HEAVY VEHICLES (FHWA 4+)	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Jefferson Street NE					South Dakota Avenue									
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM	to 06:45 AM	0	0	0	0		0	0	0	0		0	0	8	0		0	0	0	0	
06:45 AM	to 07:00 AM	0	0	3	0		0	0	0	0		0	0	19	0		0	0	0	0	
07:00 AM	to 07:15 AM	0	0	2	0		0	0	0	0		0	0	12	1		0	0	0	0	
07:15 AM	to 07:30 AM	0	0	3	0		0	0	0	2		0	0	11	2		0	0	0	0	
07:30 AM	to 07:45 AM	0	0	6	0		0	0	0	0		0	0	11	0		0	0	0	0	
07:45 AM	to 08:00 AM	0	0	4	0		0	0	0	1		0	0	14	0		0	0	0	0	
08:00 AM	to 08:15 AM	0	0	11	0		0	0	0	0		0	0	12	0		0	0	0	0	
08:15 AM	to 08:30 AM	0	0	6	0		0	0	0	0		0	0	15	0		0	0	0	0	
08:30 AM	to 08:45 AM	0	0	14	0		0	0	0	0		0	0	11	0		0	0	0	0	
08:45 AM	to 09:00 AM	0	0	13	0		0	0	0	0		0	0	7	0		0	0	0	0	
09:00 AM	to 09:15 AM	0	0	5	0		0	0	0	0		0	0	11	0		0	0	0	0	
09:15 AM	to 09:30 AM	0	0	9	0		0	0	0	0		0	0	13	0		0	0	0	0	
09:30 AM	to 09:45 AM																				
09:45 AM	to 10:00 AM																				
10:00 AM	to 10:15 AM																				
10:15 AM	to 10:30 AM																				
10:30 AM	to 10:45 AM																				
10:45 AM	to 11:00 AM																				
11:00 AM	to 11:15 AM																				
11:15 AM	to 11:30 AM																				
SYSTEM PEAK HR (VEH.)		35					1					52					0				
07:45 AM	to 08:45 AM	0	0	35	0		0	0	0	1		0	0	52	0		0	0	0	0	
Heavy Vehicle % (PHV):		0.0%	0.0%	4.0%	0.0%	4.0%	0.0%	0.0%	0.0%	5.9%	2.2%	0.0%	0.0%	6.3%	0.0%	6.2%	0.0%	0.0%	0.0%	0.0%	0.0%
INT. PEAK HR (HV ONLY)		44					0					45					0				
08:00 AM	to 09:00 AM	0	0	44	0		0	0	0	0		0	0	45	0		0	0	0	0	
Heavy Vehicle % (PHV):		0.0%	0.0%	5.1%	0.0%	5.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.8%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%

HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



BICYCLES	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	South Dakota Avenue				Jefferson Street NE				South Dakota Avenue							
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM	to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	to 07:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:00 AM	to 07:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:15 AM	to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	to 08:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
08:30 AM	to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	to 09:45 AM																
09:45 AM	to 10:00 AM																
10:00 AM	to 10:15 AM																
10:15 AM	to 10:30 AM																
10:30 AM	to 10:45 AM																
10:45 AM	to 11:00 AM																
11:00 AM	to 11:15 AM																
11:15 AM	to 11:30 AM																
SYSTEM PEAK HR (VEH.)		0				0				1				0			
07:45 AM	to 08:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
INT. PEAK HR (BIKES)		0				1				1				0			
06:30 AM	to 07:30 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0

PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : UDC Bertie Backus CMP
Project # : 2919-001
Location: District of Columbia
Data Source: Gorove/Slade Associates, Inc.

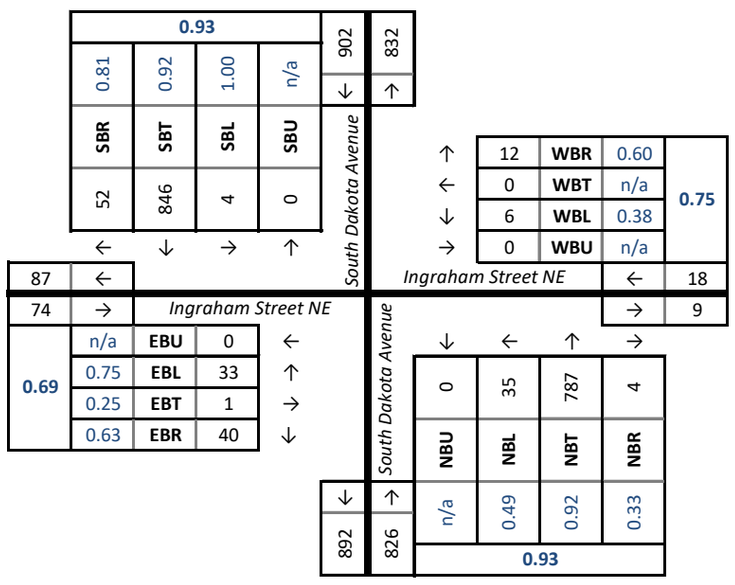
Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, September 20, 2022
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 07:45 AM to 08:45 AM
System Peak Hour (all vehicles): 07:45 AM to 08:45 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. South Dakota Avenue & Ingraham Street NE

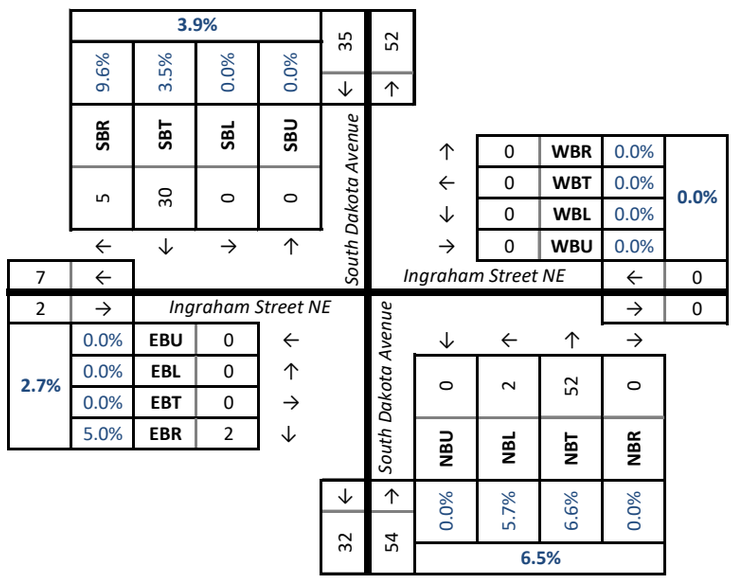
ALL VEHICLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Ingraham Street NE					South Dakota Avenue					Ingraham Street NE				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM	to 06:45 AM	0	0	58	3	0	0	0	0	2	3	0	2	132	0	1	0	4	0	1	3
06:45 AM	to 07:00 AM	0	0	112	9	4	0	0	0	1	5	0	3	154	0	2	0	10	0	4	2
07:00 AM	to 07:15 AM	0	0	114	8	1	0	1	0	3	6	0	5	184	1	2	0	5	0	10	2
07:15 AM	to 07:30 AM	0	1	125	14	3	0	0	0	0	4	0	7	174	1	1	0	8	0	9	9
07:30 AM	to 07:45 AM	0	0	166	12	8	0	2	2	3	10	0	5	216	1	3	0	11	0	8	11
07:45 AM	to 08:00 AM	0	1	202	16	0	0	1	0	5	9	0	7	215	0	13	0	11	0	10	7
08:00 AM	to 08:15 AM	0	1	203	10	4	0	0	0	3	8	0	18	203	1	6	0	11	0	16	9
08:15 AM	to 08:30 AM	0	1	229	13	3	0	1	0	2	10	0	5	171	3	8	0	7	0	10	7
08:30 AM	to 08:45 AM	0	1	212	13	7	0	4	0	2	6	0	5	198	0	8	0	4	1	4	12
08:45 AM	to 09:00 AM	0	0	186	12	0	0	2	0	1	2	0	4	190	1	7	0	5	0	8	6
09:00 AM	to 09:15 AM	0	1	168	7	1	0	0	0	1	4	0	1	126	1	2	0	7	0	2	5
09:15 AM	to 09:30 AM	0	1	164	3	1	0	0	0	1	4	0	4	124	0	6	0	6	0	9	2
09:30 AM	to 09:45 AM																				
09:45 AM	to 10:00 AM																				
10:00 AM	to 10:15 AM																				
10:15 AM	to 10:30 AM																				
10:30 AM	to 10:45 AM																				
10:45 AM	to 11:00 AM																				
11:00 AM	to 11:15 AM																				
11:15 AM	to 11:30 AM																				
SYSTEM PEAK HR (VEH.)		902				14	18				33	826				35	74				35
07:45 AM	to 08:45 AM	0	4	846	52		0	6	0	12		0	35	787	4		0	33	1	40	
Peak Hour Factor (PHF)	Overall	U	Left	Thru	Right	SB	U	Left	Thru	Right	WB	U	Left	Thru	Right	NB	U	Left	Thru	Right	EB
	0.97	n/a	1.00	0.92	0.81	0.93	n/a	0.38	n/a	0.60	0.75	n/a	0.49	0.92	0.33	0.93	n/a	0.75	0.25	0.63	0.69

VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



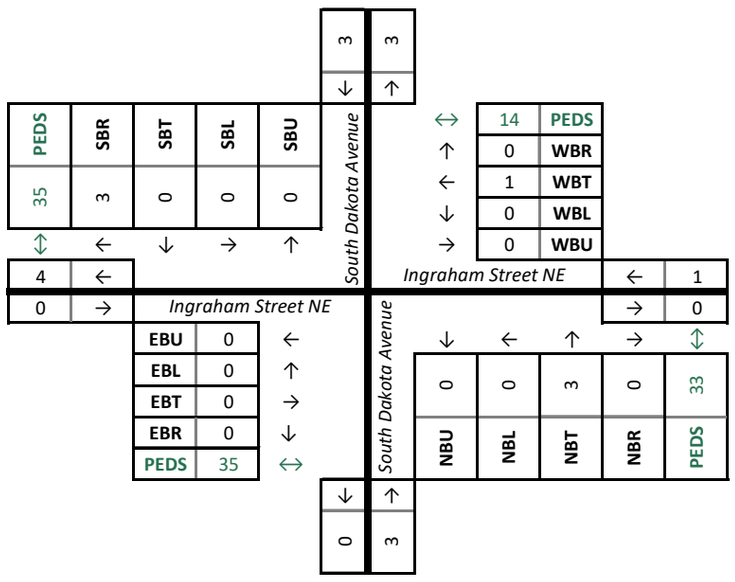
HEAVY VEHICLES (FHWA 4+)	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Ingraham Street NE					South Dakota Avenue					Ingraham Street NE				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM	to 06:45 AM	0	0	0	0		0	0	0	0		0	0	8	0		0	0	0	0	
06:45 AM	to 07:00 AM	0	0	3	0		0	0	0	0		0	1	18	0		0	1	0	1	
07:00 AM	to 07:15 AM	0	0	2	0		0	0	0	0		0	0	13	0		0	0	0	0	
07:15 AM	to 07:30 AM	0	0	3	0		0	0	0	0		0	0	12	1		0	0	0	0	
07:30 AM	to 07:45 AM	0	0	6	0		0	0	0	0		0	1	10	0		0	1	0	0	
07:45 AM	to 08:00 AM	0	0	3	1		0	0	0	0		0	0	14	0		0	0	0	1	
08:00 AM	to 08:15 AM	0	0	9	2		0	0	0	0		0	2	12	0		0	0	0	1	
08:15 AM	to 08:30 AM	0	0	6	0		0	0	0	0		0	0	15	0		0	0	0	0	
08:30 AM	to 08:45 AM	0	0	12	2		0	0	0	0		0	0	11	0		0	0	0	0	
08:45 AM	to 09:00 AM	0	0	13	0		0	0	0	0		0	0	7	0		0	0	0	0	
09:00 AM	to 09:15 AM	0	1	4	0		0	0	0	0		0	0	11	0		0	0	0	0	
09:15 AM	to 09:30 AM	0	0	9	0		0	0	0	0		0	0	13	0		0	0	0	0	
09:30 AM	to 09:45 AM																				
09:45 AM	to 10:00 AM																				
10:00 AM	to 10:15 AM																				
10:15 AM	to 10:30 AM																				
10:30 AM	to 10:45 AM																				
10:45 AM	to 11:00 AM																				
11:00 AM	to 11:15 AM																				
11:15 AM	to 11:30 AM																				
SYSTEM PEAK HR (VEH.)		35					0					54					2				
07:45 AM	to 08:45 AM	0	0	30	5		0	0	0	0		0	2	52	0		0	0	0	2	
Heavy Vehicle % (PHV):		0.0%	0.0%	3.5%	9.6%	**3.9%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	5.7%	6.6%	0.0%	**6.5%**	0.0%	0.0%	0.0%	5.0%	**2.7%**
INT. PEAK HR (HV ONLY)		44					0					47					1				
08:00 AM	to 09:00 AM	0	0	40	4		0	0	0	0		0	2	45	0		0	0	0	1	
Heavy Vehicle % (PHV):		0.0%	0.0%	4.8%	8.3%	**5.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	6.3%	5.9%	0.0%	**5.9%**	0.0%	0.0%	0.0%	2.6%	**1.5%**

HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



BICYCLES	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	South Dakota Avenue				Ingraham Street NE				South Dakota Avenue				Ingraham Street NE			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM	to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	to 07:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:15 AM	to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	to 07:45 AM	0	0	1	1	0	0	1	0	0	0	1	0	0	0	0	0
07:45 AM	to 08:00 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	to 08:30 AM	0	0	0	0	0	0	1	0	0	0	3	0	0	0	0	0
08:30 AM	to 08:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	to 09:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	to 09:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	to 09:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	to 09:45 AM																
09:45 AM	to 10:00 AM																
10:00 AM	to 10:15 AM																
10:15 AM	to 10:30 AM																
10:30 AM	to 10:45 AM																
10:45 AM	to 11:00 AM																
11:00 AM	to 11:15 AM																
11:15 AM	to 11:30 AM																
SYSTEM PEAK HR (VEH.)		3				1				3				0			
07:45 AM	to 08:45 AM	0	0	0	3	0	0	1	0	0	0	3	0	0	0	0	0
INT. PEAK HR (BIKES)		4				2				4				0			
07:30 AM	to 08:30 AM	0	0	1	3	0	0	2	0	0	0	4	0	0	0	0	0

PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : UDC Bertie Backus CMP
Project # : 2919-001
Location District of Columbia
Data Source: Gorove/Slade Associates, Inc.

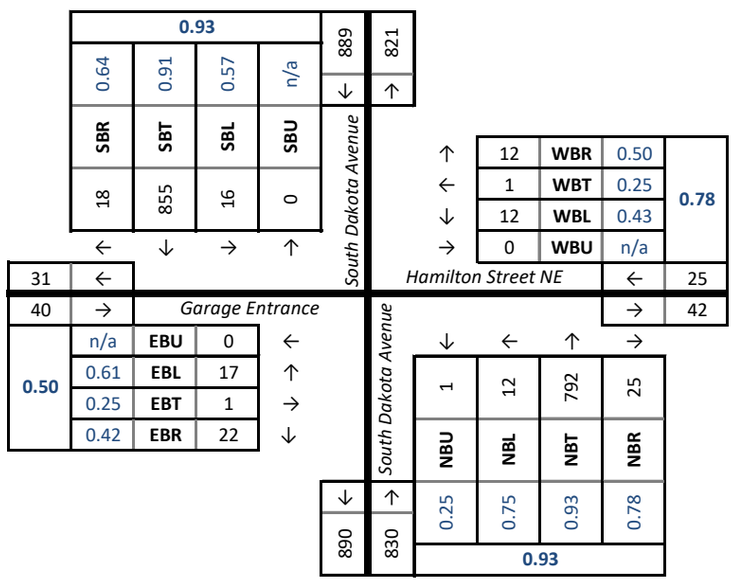
Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, September 20, 2022
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 07:45 AM to 08:45 AM
System Peak Hour (all vehicles): 07:45 AM to 08:45 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. South Dakota Avenue & Hamilton Street NE/Garage Entrance

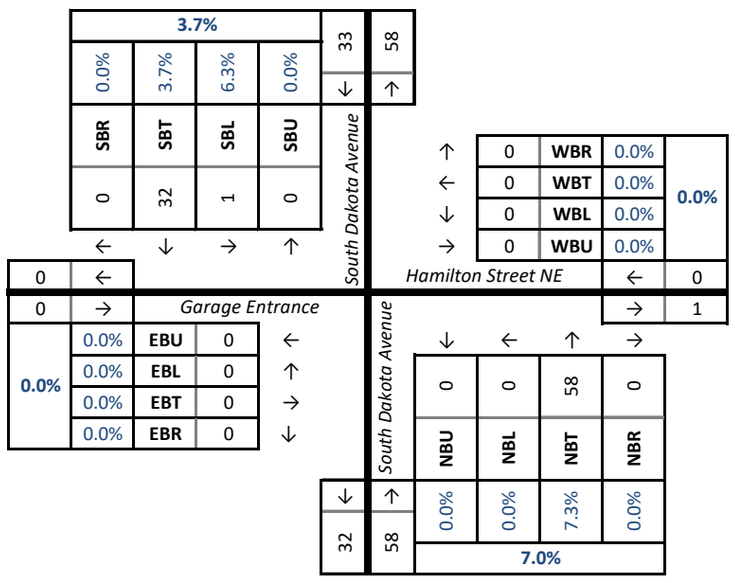
ALL VEHICLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Hamilton Street NE					South Dakota Avenue					Garage Entrance				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM	to 06:45 AM	0	0	54	5	0	0	0	0	3	2	0	4	122	2	1	0	7	1	7	5
06:45 AM	to 07:00 AM	0	0	108	8	1	0	1	0	3	6	0	7	148	1	2	0	6	0	7	9
07:00 AM	to 07:15 AM	0	0	120	4	1	0	1	0	2	3	0	5	182	4	4	0	6	0	10	3
07:15 AM	to 07:30 AM	0	0	132	2	0	0	3	0	2	4	0	2	179	6	4	0	1	0	5	7
07:30 AM	to 07:45 AM	0	2	174	0	2	0	5	0	2	4	0	1	218	2	3	0	2	2	7	8
07:45 AM	to 08:00 AM	0	4	202	7	4	0	2	0	6	6	0	4	211	2	0	0	7	0	0	5
08:00 AM	to 08:15 AM	0	4	209	4	0	0	1	0	1	3	1	4	212	7	3	0	7	0	13	10
08:15 AM	to 08:30 AM	0	1	235	4	0	0	7	0	1	6	0	2	172	8	6	0	2	1	3	6
08:30 AM	to 08:45 AM	0	7	209	3	2	0	2	1	4	3	0	2	197	8	2	0	1	0	6	12
08:45 AM	to 09:00 AM	0	3	189	4	0	0	1	0	3	2	0	3	187	4	3	0	5	0	2	8
09:00 AM	to 09:15 AM	0	4	165	4	0	0	2	0	3	3	0	1	124	4	3	0	1	0	4	9
09:15 AM	to 09:30 AM	0	3	171	0	0	0	0	0	3	1	1	5	119	1	2	0	5	0	2	19
09:30 AM	to 09:45 AM																				
09:45 AM	to 10:00 AM																				
10:00 AM	to 10:15 AM																				
10:15 AM	to 10:30 AM																				
10:30 AM	to 10:45 AM																				
10:45 AM	to 11:00 AM																				
11:00 AM	to 11:15 AM																				
11:15 AM	to 11:30 AM																				
SYSTEM PEAK HR (VEH.)		889				6	25				18	830				11	40				33
07:45 AM	to 08:45 AM	0	16	855	18		0	12	1	12		1	12	792	25		0	17	1	22	
Peak Hour Factor (PHF)	Overall	U	Left	Thru	Right	SB	U	Left	Thru	Right	WB	U	Left	Thru	Right	NB	U	Left	Thru	Right	EB
	0.96	n/a	0.57	0.91	0.64	0.93	n/a	0.43	0.25	0.50	0.78	0.25	0.75	0.93	0.78	0.93	n/a	0.61	0.25	0.42	0.50

VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



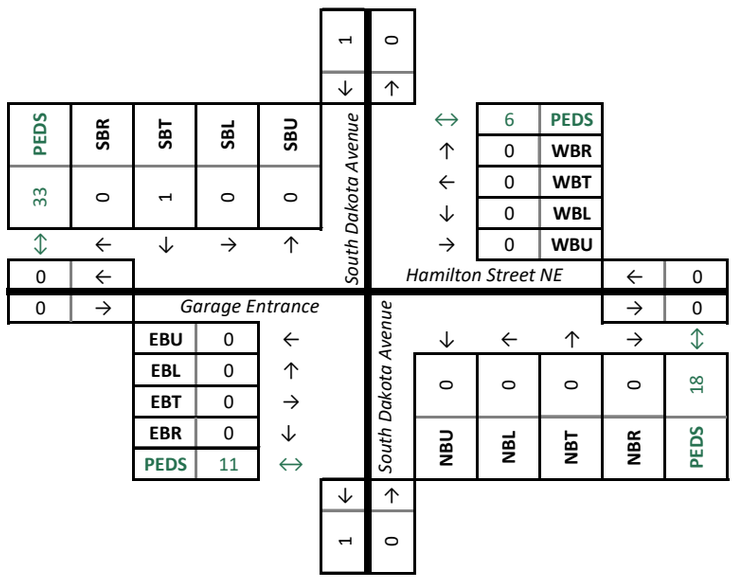
HEAVY VEHICLES (FHWA 4+)	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Hamilton Street NE					South Dakota Avenue					Garage Entrance				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM	to 06:45 AM	0	0	0	0		0	0	0	0		0	0	8	0		0	0	0	0	
06:45 AM	to 07:00 AM	0	0	4	0		0	0	0	0		0	0	19	0		0	0	0	0	
07:00 AM	to 07:15 AM	0	0	2	0		0	0	0	0		0	0	13	0		0	0	0	0	
07:15 AM	to 07:30 AM	0	0	3	0		0	0	0	0		0	0	13	0		0	0	0	0	
07:30 AM	to 07:45 AM	0	0	6	0		0	0	0	0		0	0	11	0		0	0	0	0	
07:45 AM	to 08:00 AM	0	0	4	0		0	0	0	0		0	0	14	0		0	0	0	0	
08:00 AM	to 08:15 AM	0	1	9	0		0	0	0	0		0	0	14	0		0	0	0	0	
08:15 AM	to 08:30 AM	0	0	6	0		0	0	0	0		0	0	15	0		0	0	0	0	
08:30 AM	to 08:45 AM	0	0	13	0		0	0	0	0		0	0	15	0		0	0	0	0	
08:45 AM	to 09:00 AM	0	0	13	0		0	0	0	0		0	0	5	0		0	0	0	0	
09:00 AM	to 09:15 AM	0	0	3	0		0	0	0	1		0	0	9	0		0	0	0	0	
09:15 AM	to 09:30 AM	0	1	7	0		0	0	0	1		0	0	12	0		0	0	0	0	
09:30 AM	to 09:45 AM																				
09:45 AM	to 10:00 AM																				
10:00 AM	to 10:15 AM																				
10:15 AM	to 10:30 AM																				
10:30 AM	to 10:45 AM																				
10:45 AM	to 11:00 AM																				
11:00 AM	to 11:15 AM																				
11:15 AM	to 11:30 AM																				
SYSTEM PEAK HR (VEH.)		33					0					58					0				
07:45 AM	to 08:45 AM	0	1	32	0		0	0	0	0		0	0	58	0		0	0	0	0	
Heavy Vehicle % (PHV):		0.0%	6.3%	3.7%	0.0%	**3.7%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	7.3%	0.0%	**7.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
INT. PEAK HR (HV ONLY)		33					0					58					0				
07:45 AM	to 08:45 AM	0	1	32	0		0	0	0	0		0	0	58	0		0	0	0	0	
Heavy Vehicle % (PHV):		0.0%	6.3%	3.7%	0.0%	**3.7%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	7.3%	0.0%	**7.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**

HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



BICYCLES	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	South Dakota Avenue				Hamilton Street NE				South Dakota Avenue				Garage Entrance			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM	to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	to 07:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
07:45 AM	to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	to 08:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	to 09:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	to 09:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	to 09:45 AM																
09:45 AM	to 10:00 AM																
10:00 AM	to 10:15 AM																
10:15 AM	to 10:30 AM																
10:30 AM	to 10:45 AM																
10:45 AM	to 11:00 AM																
11:00 AM	to 11:15 AM																
11:15 AM	to 11:30 AM																
SYSTEM PEAK HR (VEH.)		1				0				0				0			
07:45 AM	to 08:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)		1				0				2				0			
07:30 AM	to 08:30 AM	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0

PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : UDC Bertie Backus CMP
Project # : 2919-001
Location District of Columbia
Data Source: Gorove/Slade Associates, Inc.

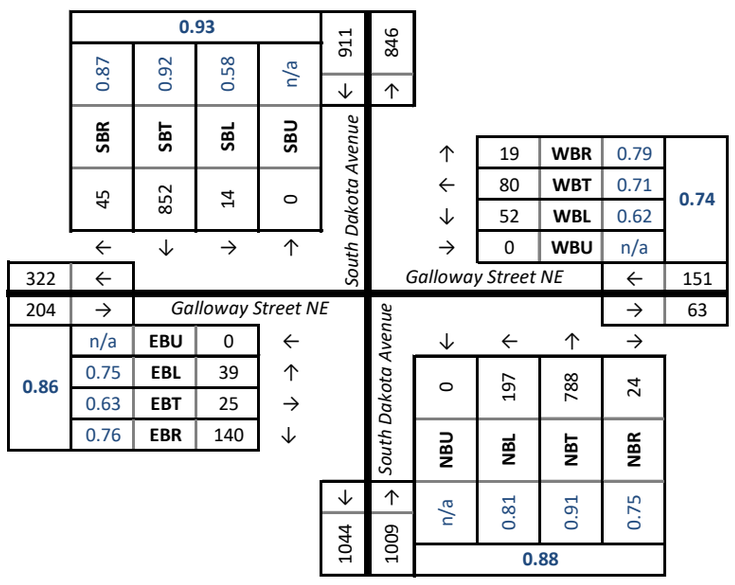
Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, September 20, 2022
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 07:45 AM to 08:45 AM
System Peak Hour (all vehicles): 07:45 AM to 08:45 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. South Dakota Avenue & Galloway Street NE

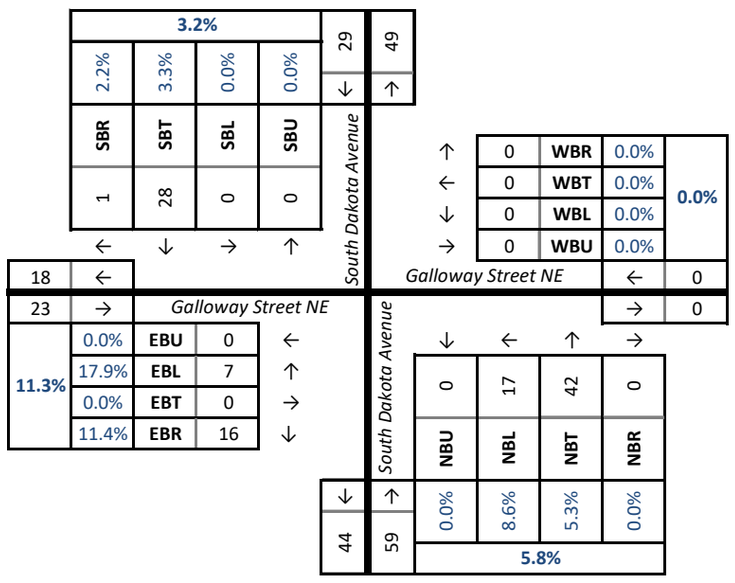
ALL VEHICLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Galloway Street NE					South Dakota Avenue					Galloway Street NE				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM	to 06:45 AM	0	3	65	3	2	0	4	2	2	3	0	19	94	3	0	0	4	5	15	2
06:45 AM	to 07:00 AM	0	0	84	3	2	0	2	6	0	5	0	20	151	3	3	0	6	9	17	2
07:00 AM	to 07:15 AM	0	2	123	6	7	0	7	11	6	2	0	30	153	1	1	0	6	3	22	6
07:15 AM	to 07:30 AM	0	0	121	6	6	0	7	14	1	3	0	38	181	2	0	0	9	2	26	6
07:30 AM	to 07:45 AM	0	0	164	9	8	0	16	18	2	4	0	44	201	2	4	0	9	9	30	3
07:45 AM	to 08:00 AM	0	1	191	10	9	0	15	28	6	4	0	53	204	4	1	0	9	6	34	6
08:00 AM	to 08:15 AM	0	4	210	13	5	0	21	27	3	3	0	61	217	8	0	0	13	10	24	6
08:15 AM	to 08:30 AM	0	6	220	12	11	0	10	19	5	3	0	49	169	5	0	0	10	3	46	6
08:30 AM	to 08:45 AM	0	3	231	10	7	0	6	6	5	9	0	34	198	7	1	0	7	6	36	8
08:45 AM	to 09:00 AM	0	5	179	5	4	0	7	12	7	3	0	18	187	6	0	0	8	6	19	7
09:00 AM	to 09:15 AM	0	2	149	7	4	0	4	2	0	3	0	27	130	9	0	0	5	5	18	1
09:15 AM	to 09:30 AM	0	4	174	5	4	0	2	5	4	3	0	19	120	3	0	0	3	6	20	8
09:30 AM	to 09:45 AM																				
09:45 AM	to 10:00 AM																				
10:00 AM	to 10:15 AM																				
10:15 AM	to 10:30 AM																				
10:30 AM	to 10:45 AM																				
10:45 AM	to 11:00 AM																				
11:00 AM	to 11:15 AM																				
11:15 AM	to 11:30 AM																				
SYSTEM PEAK HR (VEH.)		911				32	151				19	1009				2	204				26
07:45 AM	to 08:45 AM	0	14	852	45		0	52	80	19		0	197	788	24		0	39	25	140	
Peak Hour	Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF)	**0.93**	n/a	0.58	0.92	0.87	**0.93**	n/a	0.62	0.71	0.79	**0.74**	n/a	0.81	0.91	0.75	**0.88**	n/a	0.75	0.63	0.76	**0.86**

VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



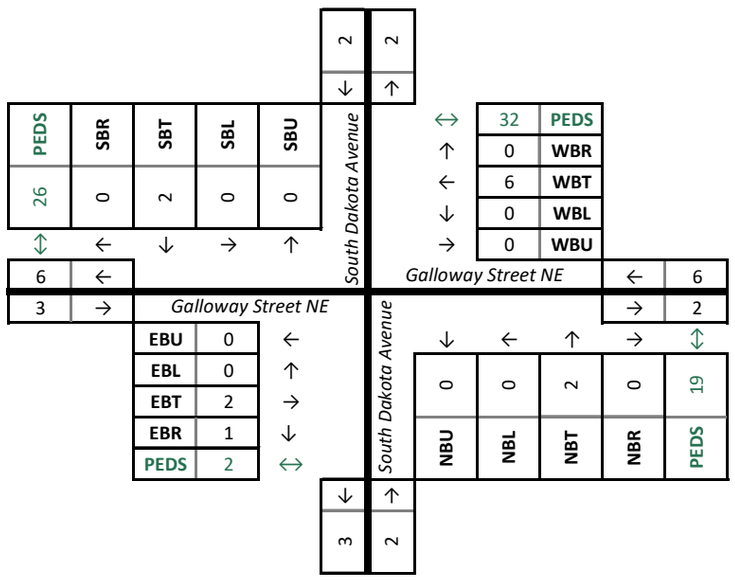
HEAVY VEHICLES (FHWA 4+)	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	South Dakota Avenue				Galloway Street NE				South Dakota Avenue				Galloway Street NE			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM	to 06:45 AM	0	0	1	0	0	0	0	0	0	4	4	0	0	2	0	3
06:45 AM	to 07:00 AM	0	0	4	0	0	0	0	0	0	2	12	0	0	1	0	3
07:00 AM	to 07:15 AM	0	0	1	0	0	0	0	0	0	2	14	0	0	2	0	0
07:15 AM	to 07:30 AM	0	0	2	0	0	1	0	0	0	7	9	0	0	3	0	3
07:30 AM	to 07:45 AM	0	0	4	0	0	0	0	0	0	4	16	0	0	1	0	8
07:45 AM	to 08:00 AM	0	0	5	0	0	0	0	0	0	7	9	0	0	2	0	4
08:00 AM	to 08:15 AM	0	0	6	0	0	0	0	0	0	2	12	0	0	1	0	3
08:15 AM	to 08:30 AM	0	0	6	1	0	0	0	0	0	5	10	0	0	1	0	4
08:30 AM	to 08:45 AM	0	0	11	0	0	0	0	0	0	3	11	0	0	3	0	5
08:45 AM	to 09:00 AM	0	0	12	0	0	0	0	0	0	4	7	0	0	1	0	5
09:00 AM	to 09:15 AM	0	0	7	0	0	0	0	0	0	2	9	0	0	1	0	5
09:15 AM	to 09:30 AM	0	0	6	0	0	0	0	1	0	3	11	0	0	1	0	5
09:30 AM	to 09:45 AM																
09:45 AM	to 10:00 AM																
10:00 AM	to 10:15 AM																
10:15 AM	to 10:30 AM																
10:30 AM	to 10:45 AM																
10:45 AM	to 11:00 AM																
11:00 AM	to 11:15 AM																
11:15 AM	to 11:30 AM																
SYSTEM PEAK HR (VEH.)		29				0				59				23			
07:45 AM	to 08:45 AM	0	0	28	1	0	0	0	0	0	17	42	0	0	7	0	16
Heavy Vehicle % (PHV):		0.0%	0.0%	3.3%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	8.6%	5.3%	0.0%	0.0%	17.9%	0.0%	11.4%
		3.2%				**0.0%**				**5.8%**				**11.3%**			
INT. PEAK HR (HV ONLY)		36				0				54				23			
08:00 AM	to 09:00 AM	0	0	35	1	0	0	0	0	0	14	40	0	0	6	0	17
Heavy Vehicle % (PHV):		0.0%	0.0%	4.2%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	8.6%	5.2%	0.0%	0.0%	15.8%	0.0%	13.6%
		4.0%				**0.0%**				**5.6%**				**12.2%**			

HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



BICYCLES	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	South Dakota Avenue				Galloway Street NE				South Dakota Avenue				Galloway Street NE			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM	to 06:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
06:45 AM	to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	to 07:15 AM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
07:15 AM	to 07:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
07:30 AM	to 07:45 AM	0	0	1	0	0	0	3	0	0	1	1	0	0	0	0	1
07:45 AM	to 08:00 AM	0	0	1	0	0	0	2	0	0	0	1	0	0	0	0	0
08:00 AM	to 08:15 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
08:15 AM	to 08:30 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	1
08:30 AM	to 08:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0
08:45 AM	to 09:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	3	0
09:00 AM	to 09:15 AM	0	0	1	0	0	0	1	0	0	0	1	0	0	0	3	0
09:15 AM	to 09:30 AM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0
09:30 AM	to 09:45 AM																
09:45 AM	to 10:00 AM																
10:00 AM	to 10:15 AM																
10:15 AM	to 10:30 AM																
10:30 AM	to 10:45 AM																
10:45 AM	to 11:00 AM																
11:00 AM	to 11:15 AM																
11:15 AM	to 11:30 AM																
SYSTEM PEAK HR (VEH.)		2				6				2				3			
07:45 AM	to 08:45 AM	0	0	2	0	0	0	6	0	0	0	2	0	0	0	2	1
INT. PEAK HR (BIKES)		1				7				1				10			
08:30 AM	to 09:30 AM	0	0	1	0	0	0	7	0	0	0	1	0	0	1	9	0

PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : UDC Bertie Backus CMP
Project # : 2919-001
Location : District of Columbia
Data Source: Gorove/Slade Associates, Inc.

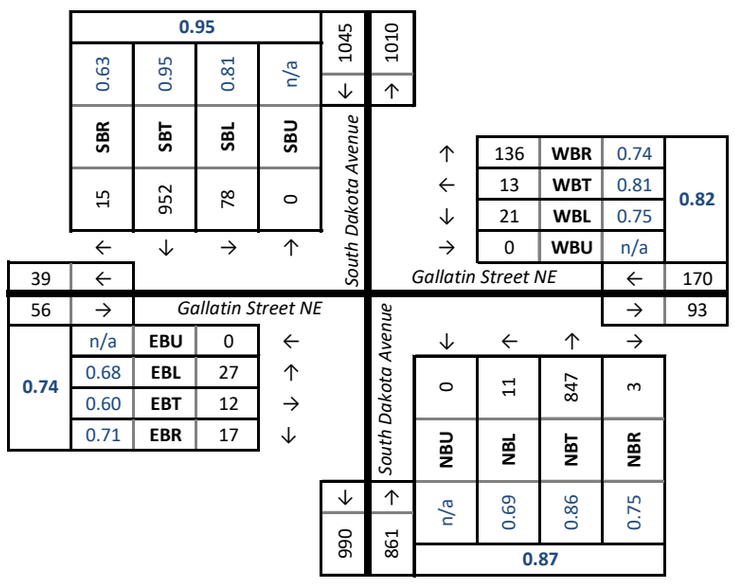
Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, September 20, 2022
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 07:45 AM to 08:45 AM
System Peak Hour (all vehicles): 07:45 AM to 08:45 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. South Dakota Avenue & Gallatin Street NE

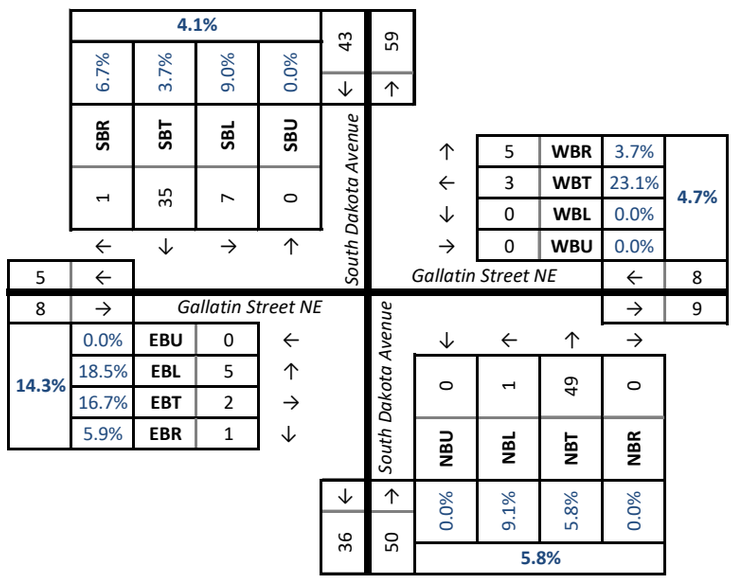
ALL VEHICLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Gallatin Street NE					South Dakota Avenue					Gallatin Street NE				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM	to 06:45 AM	0	9	75	0	0	0	2	3	17	5	0	8	98	0	1	0	1	1	4	4
06:45 AM	to 07:00 AM	0	9	86	8	0	0	1	5	29	3	0	7	139	0	1	0	6	0	0	3
07:00 AM	to 07:15 AM	0	15	132	6	0	0	3	1	36	8	0	4	144	0	0	0	5	0	5	8
07:15 AM	to 07:30 AM	0	7	142	5	0	0	3	4	27	4	0	1	190	0	1	0	3	3	4	8
07:30 AM	to 07:45 AM	0	10	199	1	0	0	8	4	45	6	0	6	196	0	0	0	6	3	4	6
07:45 AM	to 08:00 AM	0	13	225	3	2	0	3	3	46	9	0	4	210	1	2	0	6	5	5	13
08:00 AM	to 08:15 AM	0	17	232	6	1	0	7	3	35	2	0	2	245	0	3	0	6	1	2	11
08:15 AM	to 08:30 AM	0	24	251	1	1	0	5	4	31	8	0	3	182	1	0	0	10	3	6	12
08:30 AM	to 08:45 AM	0	24	244	5	0	0	6	3	24	9	0	2	210	1	3	0	5	3	4	7
08:45 AM	to 09:00 AM	0	10	191	4	0	0	2	3	34	2	0	5	172	1	1	0	5	2	4	8
09:00 AM	to 09:15 AM	0	19	151	1	0	0	2	2	19	3	0	1	146	1	3	0	2	3	4	4
09:15 AM	to 09:30 AM	0	17	174	5	0	0	2	1	17	3	0	2	122	2	1	0	3	2	6	9
09:30 AM	to 09:45 AM																				
09:45 AM	to 10:00 AM																				
10:00 AM	to 10:15 AM																				
10:15 AM	to 10:30 AM																				
10:30 AM	to 10:45 AM																				
10:45 AM	to 11:00 AM																				
11:00 AM	to 11:15 AM																				
11:15 AM	to 11:30 AM																				
SYSTEM PEAK HR (VEH.)		1045				4	170				28	861				8	56				43
07:45 AM	to 08:45 AM	0	78	952	15		0	21	13	136		0	11	847	3		0	27	12	17	
Peak Hour Factor (PHF)	Overall 0.96	U n/a	Left 0.81	Thru 0.95	Right 0.63	SB 0.95	U n/a	Left 0.75	Thru 0.81	Right 0.74	WB 0.82	U n/a	Left 0.69	Thru 0.86	Right 0.75	NB 0.87	U n/a	Left 0.68	Thru 0.60	Right 0.71	EB 0.74

VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



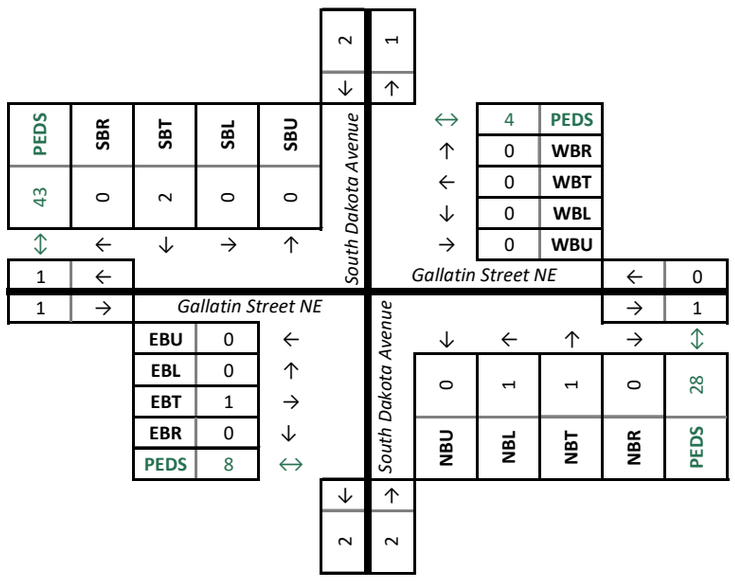
HEAVY VEHICLES (FHWA 4+)	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Gallatin Street NE					South Dakota Avenue					Gallatin Street NE				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM	to 06:45 AM	0	0	4	0		0	1	0	1		0	0	7	0		0	0	0	0	
06:45 AM	to 07:00 AM	0	1	4	2		0	0	1	3		0	3	10	0		0	1	0	0	
07:00 AM	to 07:15 AM	0	1	1	0		0	0	1	3		0	0	13	0		0	0	0	0	
07:15 AM	to 07:30 AM	0	0	5	1		0	0	1	1		0	0	15	0		0	0	0	1	
07:30 AM	to 07:45 AM	0	1	11	0		0	0	0	0		0	1	20	0		0	0	0	0	
07:45 AM	to 08:00 AM	0	1	8	0		0	0	0	2		0	1	13	0		0	1	0	0	
08:00 AM	to 08:15 AM	0	0	8	1		0	0	0	1		0	0	13	0		0	0	0	0	
08:15 AM	to 08:30 AM	0	1	9	0		0	0	2	2		0	0	10	0		0	3	1	1	
08:30 AM	to 08:45 AM	0	5	10	0		0	0	1	0		0	0	13	0		0	1	1	0	
08:45 AM	to 09:00 AM	0	1	16	0		0	0	0	4		0	1	7	0		0	0	0	2	
09:00 AM	to 09:15 AM	0	3	10	0		0	0	0	1		0	0	10	0		0	0	1	0	
09:15 AM	to 09:30 AM	0	1	10	0		0	0	0	2		0	1	12	0		0	0	0	3	
09:30 AM	to 09:45 AM																				
09:45 AM	to 10:00 AM																				
10:00 AM	to 10:15 AM																				
10:15 AM	to 10:30 AM																				
10:30 AM	to 10:45 AM																				
10:45 AM	to 11:00 AM																				
11:00 AM	to 11:15 AM																				
11:15 AM	to 11:30 AM																				
SYSTEM PEAK HR (VEH.)		43					8					50					8				
07:45 AM	to 08:45 AM	0	7	35	1		0	0	3	5		0	1	49	0		0	5	2	1	
Heavy Vehicle % (PHV):		0.0%	9.0%	3.7%	6.7%	4.1%	0.0%	0.0%	23.1%	3.7%	4.7%	0.0%	9.1%	5.8%	0.0%	5.8%	0.0%	18.5%	16.7%	5.9%	14.3%
INT. PEAK HR (HV ONLY)		55					10					41					10				
08:15 AM	to 09:15 AM	0	10	45	0		0	0	3	7		0	1	40	0		0	4	3	3	
Heavy Vehicle % (PHV):		0.0%	13.0%	5.4%	0.0%	5.9%	0.0%	0.0%	25.0%	6.5%	7.4%	0.0%	9.1%	5.6%	0.0%	5.7%	0.0%	18.2%	27.3%	16.7%	19.6%

HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



BICYCLES	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	South Dakota Avenue				Gallatin Street NE				South Dakota Avenue				Gallatin Street NE			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM	to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
06:45 AM	to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	to 07:15 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	to 07:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	to 07:45 AM	0	0	2	0	0	0	1	0	0	0	3	0	0	0	0	0
07:45 AM	to 08:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	to 08:30 AM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
08:30 AM	to 08:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
08:45 AM	to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	to 09:15 AM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
09:15 AM	to 09:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
09:30 AM	to 09:45 AM																
09:45 AM	to 10:00 AM																
10:00 AM	to 10:15 AM																
10:15 AM	to 10:30 AM																
10:30 AM	to 10:45 AM																
10:45 AM	to 11:00 AM																
11:00 AM	to 11:15 AM																
11:15 AM	to 11:30 AM																
SYSTEM PEAK HR (VEH.)		2				0				2				1			
07:45 AM	to 08:45 AM	0	0	2	0	0	0	0	0	0	1	1	0	0	0	1	0
INT. PEAK HR (BIKES)		6				1				3				1			
07:00 AM	to 08:00 AM	0	0	6	0	0	0	1	0	0	0	3	0	0	0	0	1

PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : UDC Bertie Backus CMP
Project # : 2919-001
Location District of Columbia
Data Source: Gorove/Slade Associates, Inc.

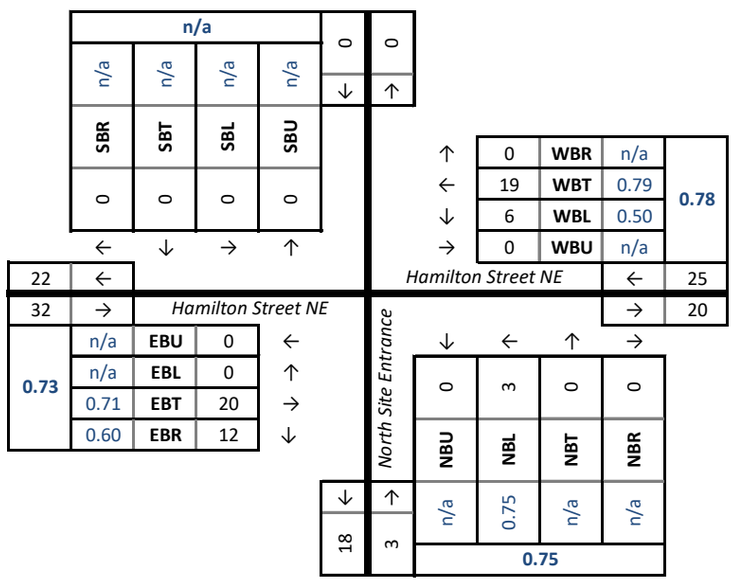
Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, September 20, 2022
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 08:00 AM to 09:00 AM
System Peak Hour (all vehicles): 07:45 AM to 08:45 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. /North Site Entrance & Hamilton Street NE

ALL VEHICLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:						Hamilton Street NE					North Site Entrance					Hamilton Street NE				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM	to 06:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	0	0	2	0	1
06:45 AM	to 07:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	1	0	1
07:00 AM	to 07:15 AM	0	0	0	0	0	0	0	4	0	1	0	0	0	0	3	0	0	2	0	0
07:15 AM	to 07:30 AM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	1	0	0	1	0	1
07:30 AM	to 07:45 AM	0	0	0	0	0	0	1	2	0	0	0	0	0	1	0	0	0	6	3	0
07:45 AM	to 08:00 AM	0	0	0	0	0	0	0	5	0	0	0	1	0	0	2	0	0	4	2	0
08:00 AM	to 08:15 AM	0	0	0	0	0	0	1	3	0	0	0	1	0	0	1	0	0	3	1	0
08:15 AM	to 08:30 AM	0	0	0	0	0	0	2	6	0	0	0	1	0	0	2	0	0	7	4	0
08:30 AM	to 08:45 AM	0	0	0	0	0	0	3	5	0	0	0	0	0	0	2	0	0	6	5	0
08:45 AM	to 09:00 AM	0	0	0	0	0	0	2	3	0	1	0	2	0	1	2	0	0	4	8	0
09:00 AM	to 09:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	4	0	0	2	5	1
09:15 AM	to 09:30 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	3	1	2
09:30 AM	to 09:45 AM																				
09:45 AM	to 10:00 AM																				
10:00 AM	to 10:15 AM																				
10:15 AM	to 10:30 AM																				
10:30 AM	to 10:45 AM																				
10:45 AM	to 11:00 AM																				
11:00 AM	to 11:15 AM																				
11:15 AM	to 11:30 AM																				
SYSTEM PEAK HR (VEH.)		0				0	25				0	3				7	32				0
07:45 AM	to 08:45 AM	0	0	0	0		0	6	19	0		0	3	0	0		0	0	20	12	
Peak Hour Factor (PHF)	Overall 0.75	U n/a	Left n/a	Thru n/a	Right n/a	SB n/a	U n/a	Left 0.50	Thru 0.79	Right n/a	WB 0.78	U n/a	Left 0.75	Thru n/a	Right n/a	NB 0.75	U n/a	Left n/a	Thru 0.71	Right 0.60	EB 0.73

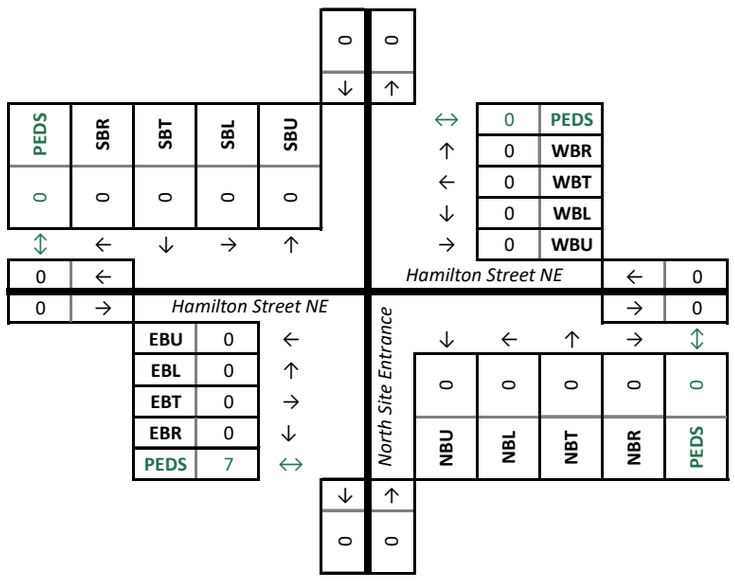
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEHICLES (FHWA 4+)	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:					Hamilton Street NE				North Site Entrance				Hamilton Street NE			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM	to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
08:15 AM	to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	to 09:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
09:30 AM	to 09:45 AM																
09:45 AM	to 10:00 AM																
10:00 AM	to 10:15 AM																
10:15 AM	to 10:30 AM																
10:30 AM	to 10:45 AM																
10:45 AM	to 11:00 AM																
11:00 AM	to 11:15 AM																
11:15 AM	to 11:30 AM																
SYSTEM PEAK HR (VEH.)		0				0				0				1			
07:45 AM	to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	0.0%
INT. PEAK HR (HV ONLY)		0				1				0				1			
08:30 AM	to 09:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.7%	0.0%

	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:						Hamilton Street NE					North Site Entrance					Hamilton Street NE				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM	to 06:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:45 AM	to 07:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:00 AM	to 07:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:15 AM	to 07:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:30 AM	to 07:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:45 AM	to 08:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
08:00 AM	to 08:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
08:15 AM	to 08:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
08:30 AM	to 08:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
08:45 AM	to 09:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
09:00 AM	to 09:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
09:15 AM	to 09:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
09:30 AM	to 09:45 AM																				
09:45 AM	to 10:00 AM																				
10:00 AM	to 10:15 AM																				
10:15 AM	to 10:30 AM																				
10:30 AM	to 10:45 AM																				
10:45 AM	to 11:00 AM																				
11:00 AM	to 11:15 AM																				
11:15 AM	to 11:30 AM																				
SYSTEM PEAK HR (VEH.)		0					0					0					0				
07:45 AM	to 08:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
INT. PEAK HR (BIKES)		0					0					0					0				
06:30 AM	to 07:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : UDC Bertie Backus CMP
Project # : 2919-001
Location District of Columbia
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, September 20, 2022
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 07:45 AM to 08:45 AM
System Peak Hour (all vehicles): 07:45 AM to 08:45 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. Ingraham Street NE/7th Street NE & Hamilton Street NE

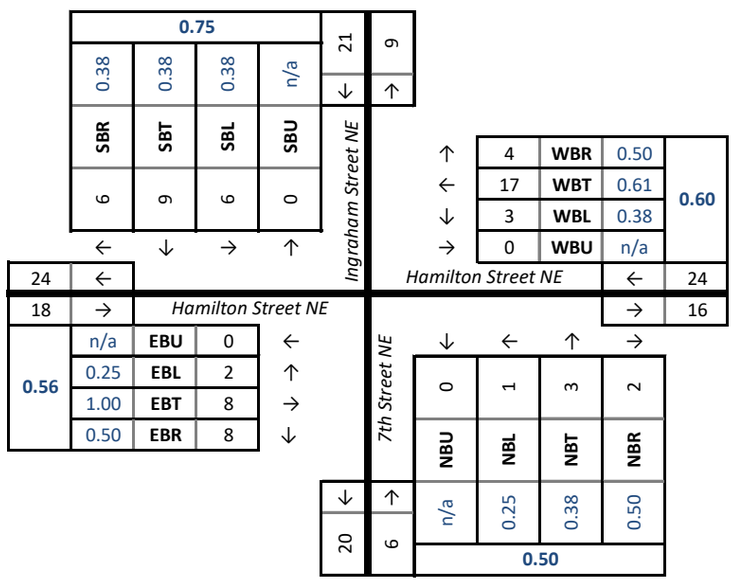
ALL VEHICLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	Ingraham Street NE					Hamilton Street NE					7th Street NE					Hamilton Street NE				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM	to 06:45 AM	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	1	1	0	1
06:45 AM	to 07:00 AM	0	0	1	0	0	0	1	2	0	0	0	1	0	0	0	0	0	1	0	0
07:00 AM	to 07:15 AM	0	0	1	0	2	0	2	2	2	0	0	0	0	0	3	0	0	0	1	0
07:15 AM	to 07:30 AM	0	1	0	2	0	0	1	2	1	0	0	0	0	0	0	1	0	1	0	0
07:30 AM	to 07:45 AM	0	0	0	1	1	0	2	1	3	0	0	0	1	0	1	0	0	4	2	0
07:45 AM	to 08:00 AM	0	0	2	1	1	0	0	5	2	0	0	0	0	1	0	0	0	2	1	0
08:00 AM	to 08:15 AM	0	1	6	0	2	0	1	2	0	2	0	0	2	1	1	0	0	2	0	0
08:15 AM	to 08:30 AM	0	1	1	4	0	0	0	3	1	0	0	0	0	0	1	0	0	2	3	1
08:30 AM	to 08:45 AM	0	4	0	1	2	0	2	7	1	0	0	1	1	0	3	0	2	2	4	1
08:45 AM	to 09:00 AM	0	0	2	1	0	0	0	0	0	1	0	2	0	0	0	0	0	2	2	1
09:00 AM	to 09:15 AM	0	0	0	0	1	0	1	2	1	1	0	0	0	0	1	0	0	2	1	2
09:15 AM	to 09:30 AM	0	0	0	1	0	0	2	0	0	0	0	0	1	0	0	0	0	3	1	1
09:30 AM	to 09:45 AM																				
09:45 AM	to 10:00 AM																				
10:00 AM	to 10:15 AM																				
10:15 AM	to 10:30 AM																				
10:30 AM	to 10:45 AM																				
10:45 AM	to 11:00 AM																				
11:00 AM	to 11:15 AM																				
11:15 AM	to 11:30 AM																				
SYSTEM PEAK HR (VEH.)		21				5	24				2	6				5	18				2
07:45 AM	to 08:45 AM	0	6	9	6		0	3	17	4		0	1	3	2		0	2	8	8	
Peak Hour Factor (PHF)	Overall 0.69	U n/a	Left 0.38	Thru 0.38	Right 0.38	SB 0.75	U n/a	Left 0.38	Thru 0.61	Right 0.50	WB 0.60	U n/a	Left 0.25	Thru 0.38	Right 0.50	NB 0.50	U n/a	Left 0.25	Thru 1.00	Right 0.50	EB 0.56

HEAVY VEHICLES (FHWA 4+)	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	Ingraham Street NE				Hamilton Street NE				7th Street NE				Hamilton Street NE			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM	to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	to 07:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:00 AM	to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	to 09:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
09:15 AM	to 09:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	to 09:45 AM																
09:45 AM	to 10:00 AM																
10:00 AM	to 10:15 AM																
10:15 AM	to 10:30 AM																
10:30 AM	to 10:45 AM																
10:45 AM	to 11:00 AM																
11:00 AM	to 11:15 AM																
11:15 AM	to 11:30 AM																
SYSTEM PEAK HR (VEH.)		0				0				0				0			
07:45 AM	to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
INT. PEAK HR (HV ONLY)		1				1				0				0			
08:30 AM	to 09:30 AM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	33.3%	0.0%	0.0%	11.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

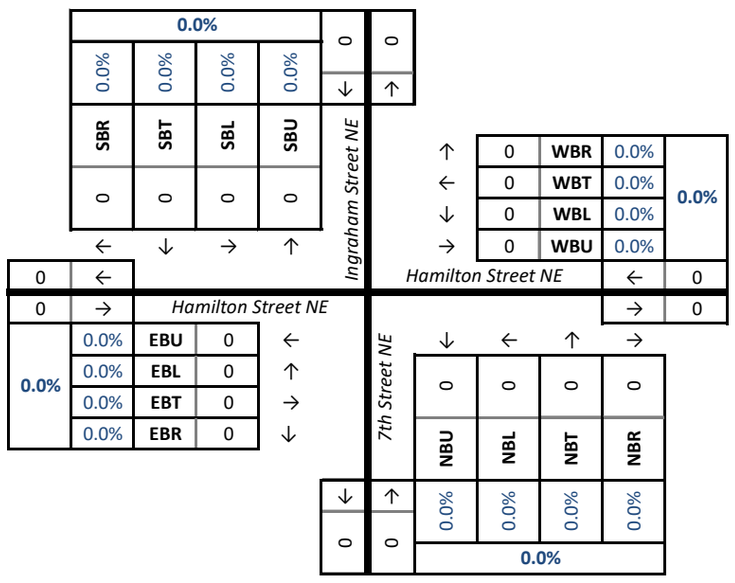
BICYCLES	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	Ingraham Street NE				Hamilton Street NE				7th Street NE				Hamilton Street NE			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM	to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	to 07:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	to 09:45 AM																
09:45 AM	to 10:00 AM																
10:00 AM	to 10:15 AM																
10:15 AM	to 10:30 AM																
10:30 AM	to 10:45 AM																
10:45 AM	to 11:00 AM																
11:00 AM	to 11:15 AM																
11:15 AM	to 11:30 AM																
SYSTEM PEAK HR (VEH.)		0				0				0				0			
07:45 AM	to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)		1				0				0				0			
06:30 AM	to 07:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DATA COLLECTION NOTES :

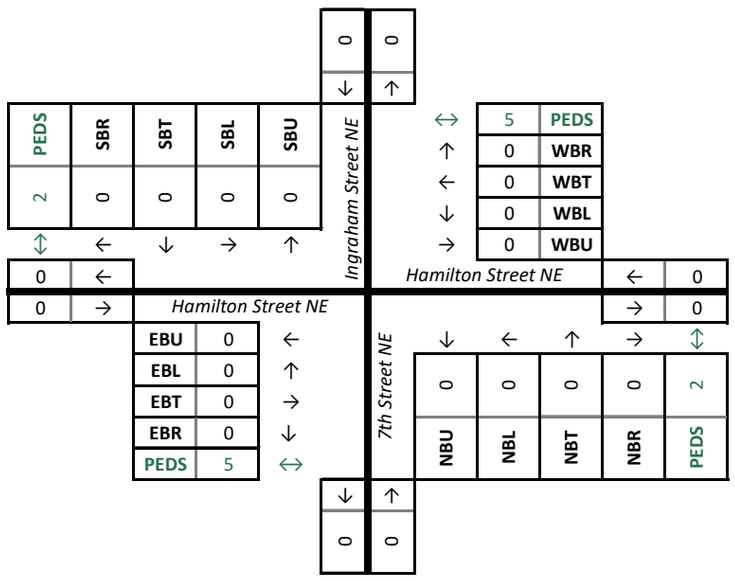
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : UDC Bertie Backus CMP
Project # : 2919-001
Location District of Columbia
Data Source: Gorove/Slade Associates, Inc.

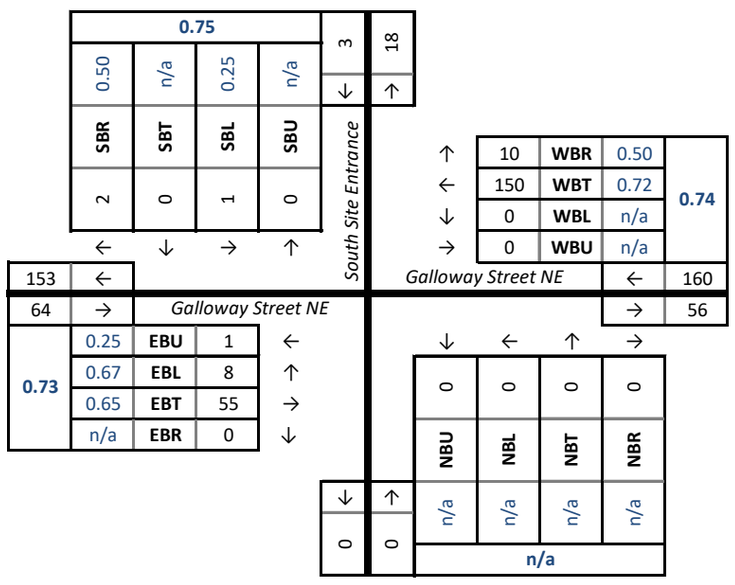
Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, September 20, 2022
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 07:30 AM to 08:30 AM
System Peak Hour (all vehicles): 07:45 AM to 08:45 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. South Site Entrance/ & Galloway Street NE

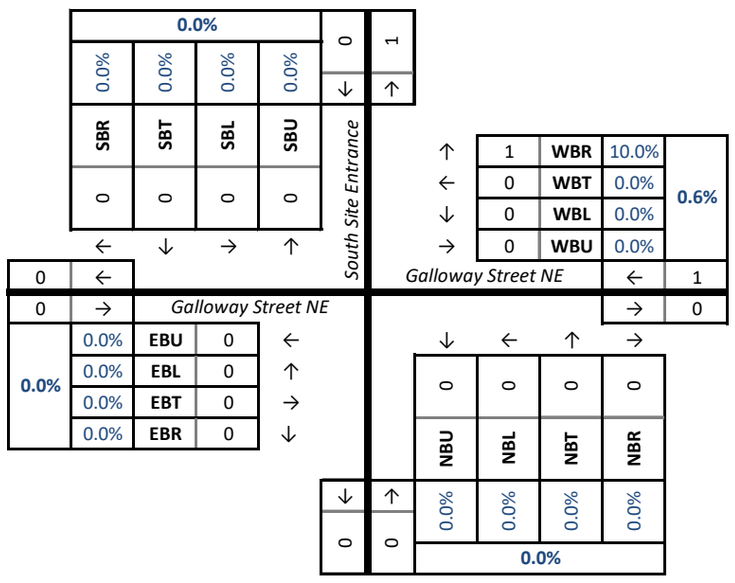
ALL VEHICLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Site Entrance					Galloway Street NE										Galloway Street NE				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM	to 06:45 AM	0	0	0	0	5	0	0	8	0	0	0	0	0	0	0	0	2	9	0	0
06:45 AM	to 07:00 AM	0	0	0	0	6	0	0	9	0	0	0	0	0	0	0	0	2	10	0	0
07:00 AM	to 07:15 AM	0	2	0	0	7	0	0	24	1	0	0	0	0	0	0	0	3	3	0	0
07:15 AM	to 07:30 AM	0	0	0	1	8	0	0	21	1	0	0	0	0	0	0	0	0	4	0	0
07:30 AM	to 07:45 AM	0	0	0	0	8	0	0	36	0	0	0	0	0	0	0	0	0	11	0	0
07:45 AM	to 08:00 AM	0	0	0	0	8	0	0	49	5	0	0	0	0	0	0	0	3	9	0	0
08:00 AM	to 08:15 AM	0	1	0	0	9	0	0	52	1	0	0	0	0	0	0	0	1	21	0	0
08:15 AM	to 08:30 AM	0	0	0	1	10	0	0	33	1	0	0	0	0	0	0	0	1	13	0	0
08:30 AM	to 08:45 AM	0	0	0	1	9	0	0	16	3	0	0	0	0	0	0	1	3	12	0	0
08:45 AM	to 09:00 AM	0	0	0	2	8	0	0	24	0	0	0	0	0	0	0	0	3	13	0	0
09:00 AM	to 09:15 AM	0	0	0	3	5	0	0	8	0	0	0	0	0	0	0	1	3	12	0	0
09:15 AM	to 09:30 AM	0	0	0	1	4	0	0	5	0	0	0	0	0	0	0	0	4	9	0	0
09:30 AM	to 09:45 AM																				
09:45 AM	to 10:00 AM																				
10:00 AM	to 10:15 AM																				
10:15 AM	to 10:30 AM																				
10:30 AM	to 10:45 AM																				
10:45 AM	to 11:00 AM																				
11:00 AM	to 11:15 AM																				
11:15 AM	to 11:30 AM																				
SYSTEM PEAK HR (VEH.)		3				36	160				0	0				0	64				0
07:45 AM	to 08:45 AM	0	1	0	2		0	0	150	10		0	0	0	0		1	8	55	0	
Peak Hour Factor (PHF)	Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
	0.75	n/a	0.25	n/a	0.50	**0.75**	n/a	n/a	0.72	0.50	**0.74**	n/a	n/a	n/a	n/a	**n/a**	0.25	0.67	0.65	n/a	**0.73**

VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



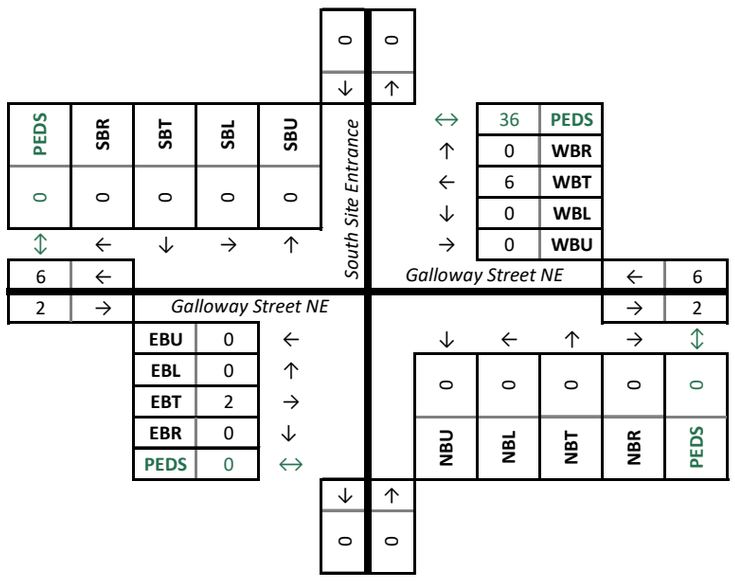
HEAVY VEHICLES (FHWA 4+)	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	South Site Entrance				Galloway Street NE								Galloway Street NE			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM	to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	to 07:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
07:30 AM	to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	to 08:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
08:15 AM	to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	to 09:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	to 09:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	to 09:45 AM																
09:45 AM	to 10:00 AM																
10:00 AM	to 10:15 AM																
10:15 AM	to 10:30 AM																
10:30 AM	to 10:45 AM																
10:45 AM	to 11:00 AM																
11:00 AM	to 11:15 AM																
11:15 AM	to 11:30 AM																
SYSTEM PEAK HR (VEH.)		0				1				0				0			
07:45 AM	to 08:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		0.0%				**0.6%**				**0.0%**				**0.0%**			
INT. PEAK HR (HV ONLY)		0				2				0				0			
07:15 AM	to 08:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	14.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		0.0%				**1.2%**				**0.0%**				**0.0%**			

HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



BICYCLES	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	South Site Entrance				Galloway Street NE								Galloway Street NE			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM	to 06:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
06:45 AM	to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:00 AM	to 07:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
07:15 AM	to 07:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
07:30 AM	to 07:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
07:45 AM	to 08:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
08:00 AM	to 08:15 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
08:15 AM	to 08:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
08:30 AM	to 08:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0
08:45 AM	to 09:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0
09:00 AM	to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
09:15 AM	to 09:30 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
09:30 AM	to 09:45 AM																
09:45 AM	to 10:00 AM																
10:00 AM	to 10:15 AM																
10:15 AM	to 10:30 AM																
10:30 AM	to 10:45 AM																
10:45 AM	to 11:00 AM																
11:00 AM	to 11:15 AM																
11:15 AM	to 11:30 AM																
SYSTEM PEAK HR (VEH.)		0				6				0				2			
07:45 AM	to 08:45 AM	0	0	0	0	0	0	6	0	0	0	0	0	0	0	2	0
INT. PEAK HR (BIKES)		0				5				0				9			
08:30 AM	to 09:30 AM	0	0	0	0	0	0	5	0	0	0	0	0	0	0	9	0

PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : UDC Bertie Backus CMP
Project # : 2919-001
Location District of Columbia
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, September 20, 2022
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 07:30 AM to 08:30 AM
System Peak Hour (all vehicles): 07:45 AM to 08:45 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. 7th Street NE/ & Galloway Street NE

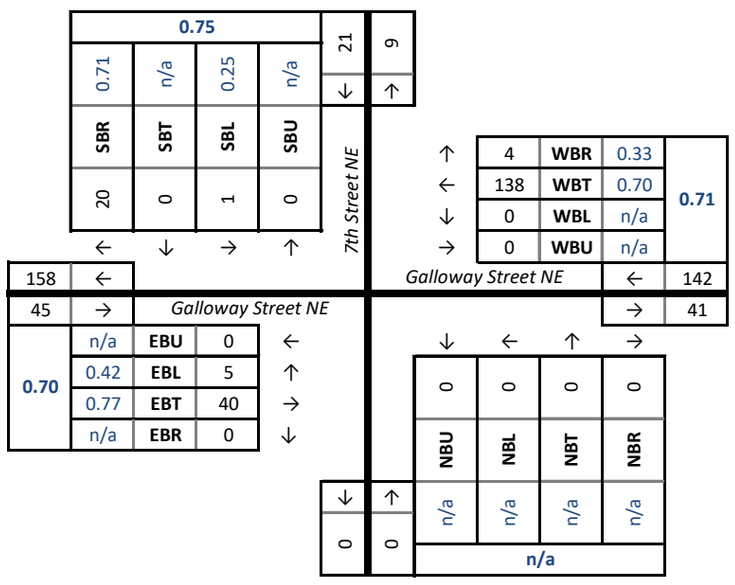
ALL VEHICLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	7th Street NE					Galloway Street NE										Galloway Street NE				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM	to 06:45 AM	0	0	0	2	1	0	0	8	0	0	0	0	0	0	0	0	0	9	0	0
06:45 AM	to 07:00 AM	0	0	0	1	7	0	0	6	0	0	0	0	0	0	0	0	1	8	0	0
07:00 AM	to 07:15 AM	0	1	0	6	6	0	0	19	1	0	0	0	0	0	0	0	0	4	0	0
07:15 AM	to 07:30 AM	0	0	0	2	9	0	0	23	0	0	0	0	0	0	0	0	0	3	0	0
07:30 AM	to 07:45 AM	0	2	0	3	8	0	0	33	0	0	0	0	0	0	0	0	0	8	0	0
07:45 AM	to 08:00 AM	0	1	0	3	7	0	0	49	1	0	0	0	0	0	0	0	0	9	0	0
08:00 AM	to 08:15 AM	0	0	0	7	5	0	0	41	0	0	0	0	0	0	0	0	3	13	0	0
08:15 AM	to 08:30 AM	0	0	0	5	8	0	0	31	0	0	0	0	0	0	0	0	1	7	0	0
08:30 AM	to 08:45 AM	0	0	0	5	9	0	0	17	3	0	0	0	0	0	0	0	1	11	0	0
08:45 AM	to 09:00 AM	0	0	0	4	3	1	0	21	1	0	0	0	0	0	0	0	1	7	0	0
09:00 AM	to 09:15 AM	0	0	0	2	3	0	0	5	0	0	0	0	0	0	0	0	0	10	0	0
09:15 AM	to 09:30 AM	0	0	0	4	2	0	0	7	1	0	0	0	0	0	0	0	0	8	0	0
09:30 AM	to 09:45 AM																				
09:45 AM	to 10:00 AM																				
10:00 AM	to 10:15 AM																				
10:15 AM	to 10:30 AM																				
10:30 AM	to 10:45 AM																				
10:45 AM	to 11:00 AM																				
11:00 AM	to 11:15 AM																				
11:15 AM	to 11:30 AM																				
SYSTEM PEAK HR (VEH.)		21				29	142				0	0				0	45				0
07:45 AM	to 08:45 AM	0	1	0	20		0	0	138	4		0	0	0	0		0	5	40	0	
Peak Hour Factor (PHF)	Overall 0.81	U n/a	Left 0.25	Thru n/a	Right 0.71	SB 0.75	U n/a	Left n/a	Thru 0.70	Right 0.33	WB 0.71	U n/a	Left n/a	Thru n/a	Right n/a	NB n/a	U n/a	Left 0.42	Thru 0.77	Right n/a	EB 0.70

HEAVY VEHICLES (FHWA 4+)	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	7th Street NE				Galloway Street NE								Galloway Street NE			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM	to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	to 07:15 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
07:15 AM	to 07:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
07:30 AM	to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	to 09:30 AM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
09:30 AM	to 09:45 AM																
09:45 AM	to 10:00 AM																
10:00 AM	to 10:15 AM																
10:15 AM	to 10:30 AM																
10:30 AM	to 10:45 AM																
10:45 AM	to 11:00 AM																
11:00 AM	to 11:15 AM																
11:15 AM	to 11:30 AM																
SYSTEM PEAK HR (VEH.)		0				0				0				0			
07:45 AM	to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
INT. PEAK HR (HV ONLY)		1				2				0				0			
06:30 AM	to 07:30 AM	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0
Heavy Vehicle % (PHV):		0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	3.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

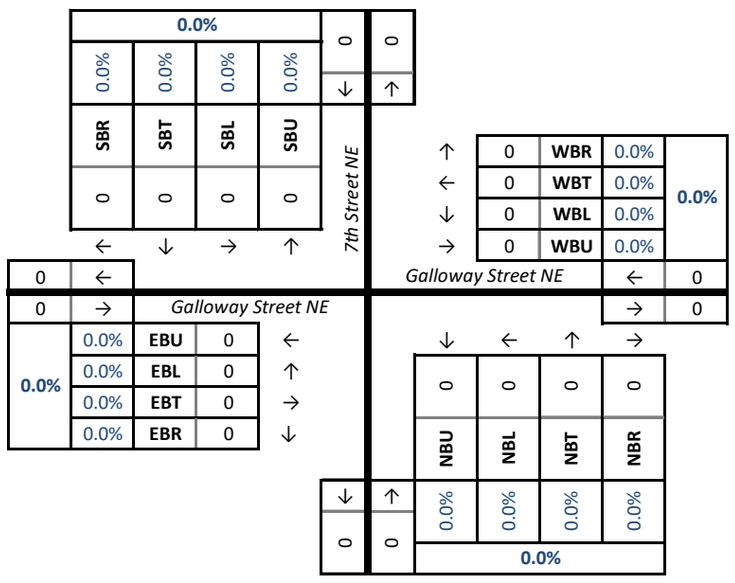
BICYCLES	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	7th Street NE				Galloway Street NE								Galloway Street NE			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM	to 06:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
06:45 AM	to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	to 07:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
07:15 AM	to 07:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
07:30 AM	to 07:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
07:45 AM	to 08:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
08:00 AM	to 08:15 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
08:15 AM	to 08:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
08:30 AM	to 08:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0
08:45 AM	to 09:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0
09:00 AM	to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
09:15 AM	to 09:30 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
09:30 AM	to 09:45 AM																
09:45 AM	to 10:00 AM																
10:00 AM	to 10:15 AM																
10:15 AM	to 10:30 AM																
10:30 AM	to 10:45 AM																
10:45 AM	to 11:00 AM																
11:00 AM	to 11:15 AM																
11:15 AM	to 11:30 AM																
SYSTEM PEAK HR (VEH.)		0				6				0				2			
07:45 AM	to 08:45 AM	0	0	0	0	0	0	6	0	0	0	0	0	0	0	2	0
INT. PEAK HR (BIKES)		0				5				0				9			
08:30 AM	to 09:30 AM	0	0	0	0	0	0	5	0	0	0	0	0	0	0	9	0

DATA COLLECTION NOTES :

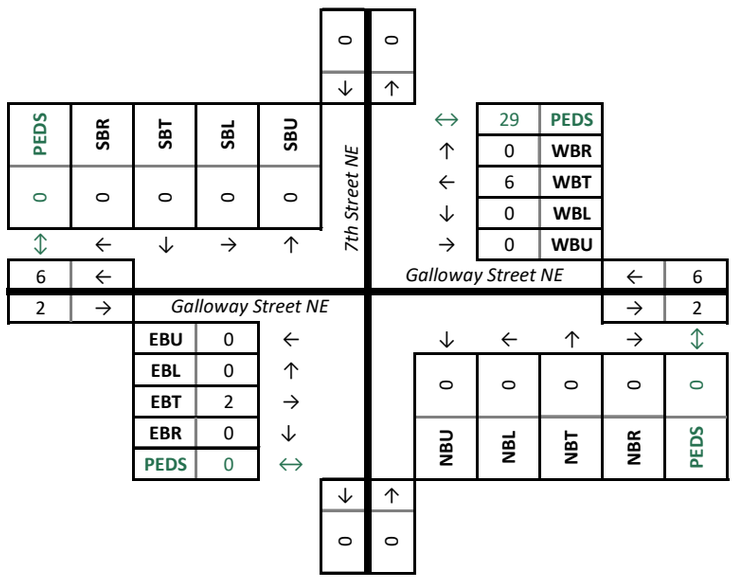
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



Gorove/Slade Associates - Multimodal Turning Movement Count Report

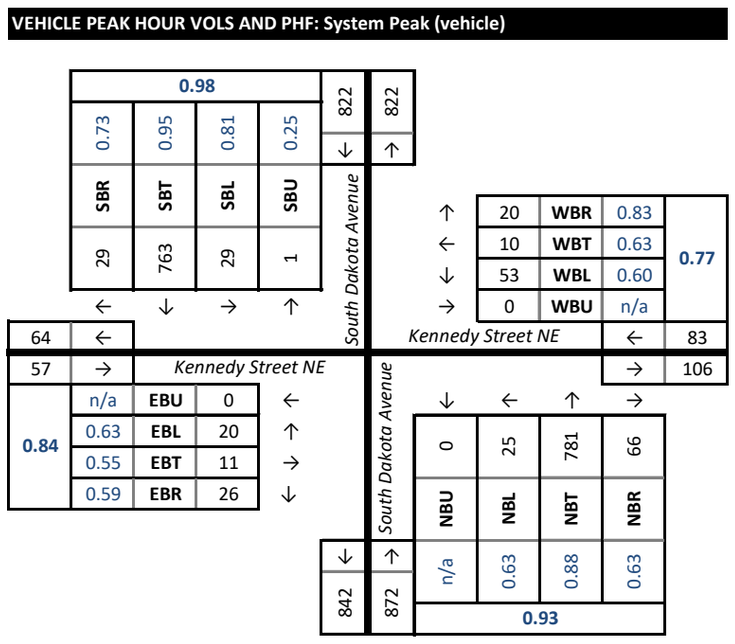
Project Name : UDC Bertie Backus CMP
Project # : 2919-001
Location District of Columbia
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, September 20, 2022
Weather: Partly Cloudy

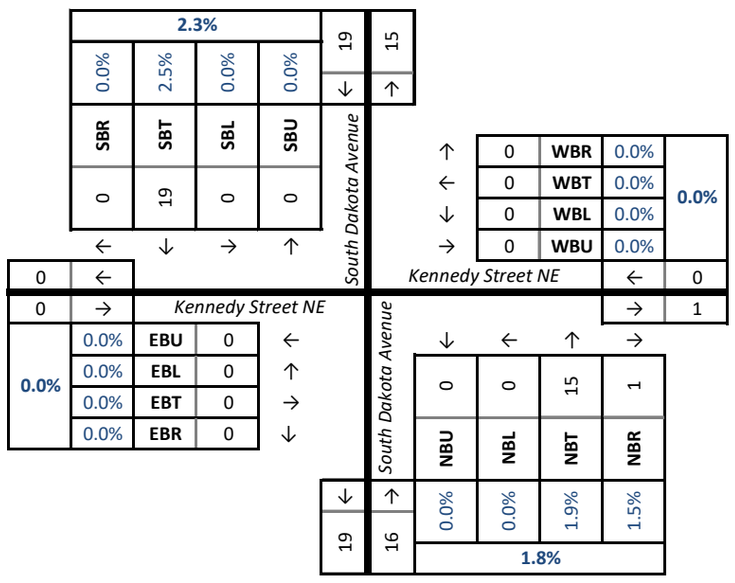
Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 04:45 PM to 05:45 PM
System Peak Hour (all vehicles): 04:45 PM to 05:45 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. South Dakota Avenue & Kennedy Street NE

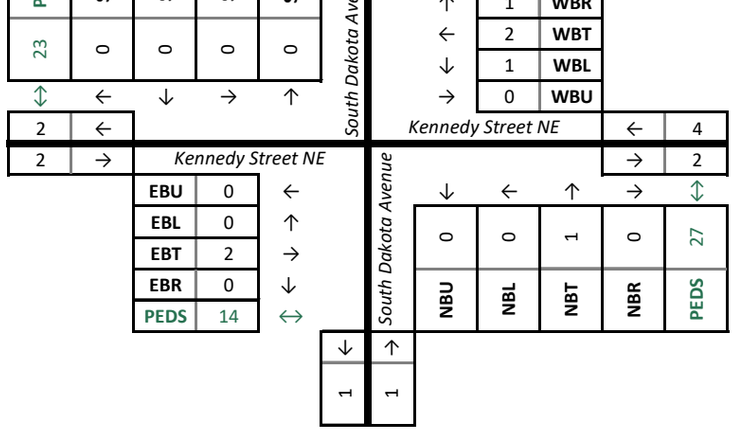
ALL VEHICLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Kennedy Street NE					South Dakota Avenue					Kennedy Street NE				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM		1	12	188	5	10	0	17	2	3	27	0	10	169	19	1	0	23	6	9	8
04:15 PM to 04:30 PM		0	6	180	5	5	0	20	2	2	14	0	2	206	11	12	0	3	4	6	5
04:30 PM to 04:45 PM		1	7	175	3	8	0	15	3	1	10	0	3	183	14	4	0	4	0	6	2
04:45 PM to 05:00 PM		1	9	187	9	7	0	13	4	5	7	0	10	176	18	3	0	5	5	4	4
05:00 PM to 05:15 PM		0	6	183	10	7	0	6	2	5	5	0	3	223	9	4	0	3	2	5	7
05:15 PM to 05:30 PM		0	9	192	8	5	0	12	3	6	2	0	8	200	13	4	0	8	2	6	10
05:30 PM to 05:45 PM		0	5	201	2	5	0	22	1	4	13	0	4	182	26	3	0	4	2	11	2
05:45 PM to 06:00 PM		0	19	195	3	5	0	13	0	2	13	0	1	150	19	4	0	1	4	4	10
06:00 PM to 06:15 PM		0	6	180	1	2	0	15	1	7	6	0	0	158	13	4	0	8	2	5	4
06:15 PM to 06:30 PM		0	11	159	1	2	0	17	0	5	4	0	1	158	12	2	0	7	0	6	5
06:30 PM to 06:45 PM		1	9	173	2	4	0	12	0	7	3	0	0	125	17	2	0	6	4	3	10
06:45 PM to 07:00 PM		0	10	166	1	2	0	13	0	3	8	0	0	130	12	4	0	0	0	2	3
07:00 PM to 07:15 PM																					
07:15 PM to 07:30 PM																					
07:30 PM to 07:45 PM																					
07:45 PM to 08:00 PM																					
08:00 PM to 08:15 PM																					
08:15 PM to 08:30 PM																					
08:30 PM to 08:45 PM																					
08:45 PM to 09:00 PM																					
SYSTEM PEAK HR (VEH.)		822				24	83				27	872				14	57				23
04:45 PM to 05:45 PM		1	29	763	29		0	53	10	20		0	25	781	66		0	20	11	26	
Peak Hour Factor (PHF)	Overall	U	Left	Thru	Right	SB	U	Left	Thru	Right	WB	U	Left	Thru	Right	NB	U	Left	Thru	Right	EB
	0.98	0.25	0.81	0.95	0.73	0.98	n/a	0.60	0.63	0.83	0.77	n/a	0.63	0.88	0.63	0.93	n/a	0.63	0.55	0.59	0.84



HEAVY VEHICLES (FHWA 4+)	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	South Dakota Avenue				Kennedy Street NE				South Dakota Avenue				Kennedy Street NE			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM		0	0	13	0	0	0	0	0	0	0	5	0	0	0	0	0
04:15 PM to 04:30 PM		0	0	12	0	0	0	0	0	0	0	9	0	0	0	0	0
04:30 PM to 04:45 PM		0	0	11	0	0	1	0	0	0	0	5	0	0	0	0	0
04:45 PM to 05:00 PM		0	0	10	0	0	0	0	0	0	0	3	1	0	0	0	0
05:00 PM to 05:15 PM		0	0	4	0	0	0	0	0	0	0	4	0	0	0	0	0
05:15 PM to 05:30 PM		0	0	3	0	0	0	0	0	0	0	4	0	0	0	0	0
05:30 PM to 05:45 PM		0	0	2	0	0	0	0	0	0	0	4	0	0	0	0	0
05:45 PM to 06:00 PM		0	1	4	1	0	0	0	0	0	0	2	0	0	0	1	0
06:00 PM to 06:15 PM		0	0	3	0	0	0	0	0	0	0	2	1	0	0	0	0
06:15 PM to 06:30 PM		0	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0
06:30 PM to 06:45 PM		0	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0
06:45 PM to 07:00 PM		0	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0
07:00 PM to 07:15 PM																	
07:15 PM to 07:30 PM																	
07:30 PM to 07:45 PM																	
07:45 PM to 08:00 PM																	
08:00 PM to 08:15 PM																	
08:15 PM to 08:30 PM																	
08:30 PM to 08:45 PM																	
08:45 PM to 09:00 PM																	
SYSTEM PEAK HR (VEH.)		19				0				16				0			
04:45 PM to 05:45 PM		0	0	19	0	0	0	0	0	0	0	15	1	0	0	0	0
Heavy Vehicle % (PHV):		0.0%	0.0%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	1.5%	0.0%	0.0%	0.0%	0.0%
INT. PEAK HR (HV ONLY)		46				1				23				0			
04:00 PM to 05:00 PM		0	0	46	0	0	1	0	0	0	0	22	1	0	0	0	0
Heavy Vehicle % (PHV):		0.0%	0.0%	6.3%	0.0%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	3.0%	1.6%	0.0%	0.0%	0.0%	0.0%



BICYCLES	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	South Dakota Avenue				Kennedy Street NE				South Dakota Avenue				Kennedy Street NE			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM		0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0
04:30 PM to 04:45 PM		0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM		0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM		0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:30 PM to 05:45 PM		0	0	0	0	0	1	2	0	0	0	0	0	0	0	2	0
05:45 PM to 06:00 PM		0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM		0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
06:30 PM to 06:45 PM		0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
06:45 PM to 07:00 PM		0	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0
07:00 PM to 07:15 PM																	
07:15 PM to 07:30 PM																	
07:30 PM to 07:45 PM																	
07:45 PM to 08:00 PM																	
08:00 PM to 08:15 PM																	
08:15 PM to 08:30 PM																	
08:30 PM to 08:45 PM																	
08:45 PM to 09:00 PM																	
SYSTEM PEAK HR (VEH.)		0				4				1				2			
04:45 PM to 05:45 PM		0	0	0	0	0	1	2	1	0	0	1	0	0	0	2	0
INT. PEAK HR (BIKES)		1				4				1				2			
05:00 PM to 06:00 PM		0	0	1	0	0	1	2	1	0	0	1	0	0	0	2	0



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : UDC Bertie Backus CMP
Project # : 2919-001
Location: District of Columbia
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, September 20, 2022
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 04:45 PM to 05:45 PM
System Peak Hour (all vehicles): 04:45 PM to 05:45 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. South Dakota Avenue & Jefferson Street NE/

ALL VEHICLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Jefferson Street NE					South Dakota Avenue									
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM		0	5	209	0	0	0	5	0	2	17	0	0	196	3	0	0	0	0	0	0
04:15 PM to 04:30 PM		0	1	205	0	1	0	7	0	2	18	0	0	217	3	0	0	0	0	0	0
04:30 PM to 04:45 PM		0	3	193	0	2	0	5	0	3	12	0	0	199	7	0	0	0	0	0	0
04:45 PM to 05:00 PM		0	1	203	0	0	0	4	0	3	14	0	0	201	8	2	0	0	0	0	0
05:00 PM to 05:15 PM		0	4	190	0	3	0	3	0	5	4	0	0	230	3	1	0	0	0	0	0
05:15 PM to 05:30 PM		0	3	207	0	0	0	4	0	2	10	0	0	219	8	0	0	0	0	0	0
05:30 PM to 05:45 PM		1	2	231	0	6	0	3	0	2	13	0	0	212	10	0	0	0	0	0	0
05:45 PM to 06:00 PM		0	2	210	0	1	0	4	0	0	8	0	0	165	7	0	0	0	0	0	0
06:00 PM to 06:15 PM		0	1	199	0	2	0	3	0	3	8	0	0	171	3	1	0	0	0	0	0
06:15 PM to 06:30 PM		0	3	179	0	0	0	3	0	2	8	0	0	169	5	0	0	0	0	0	0
06:30 PM to 06:45 PM		0	7	181	0	0	0	3	0	1	4	0	0	141	6	0	0	0	0	0	0
06:45 PM to 07:00 PM		0	3	178	0	0	0	4	0	1	7	0	0	141	2	0	0	0	0	0	0
07:00 PM to 07:15 PM																					
07:15 PM to 07:30 PM																					
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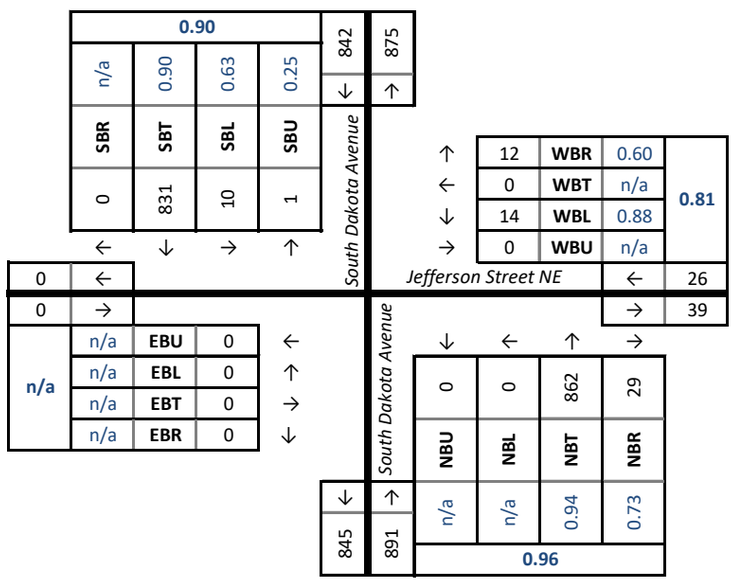
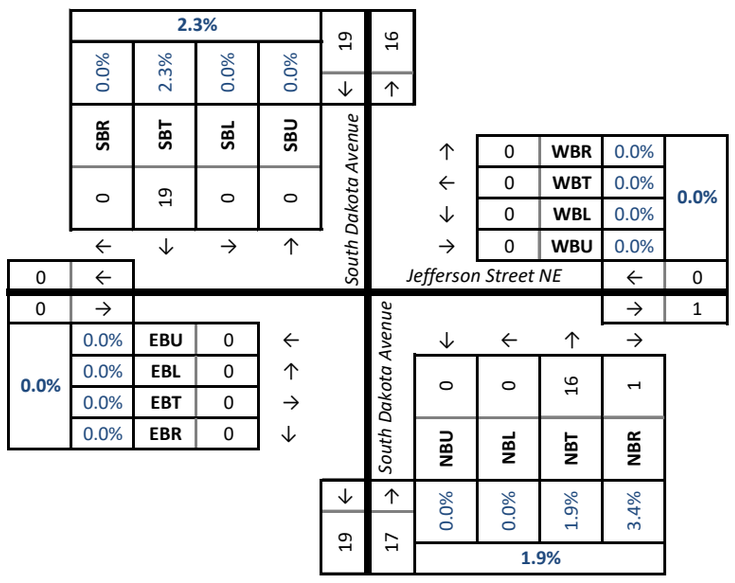
07:45 PM to 08:00 PM																					
08:00 PM to 08:15 PM																					
08:15 PM to 08:30 PM																					
08:30 PM to 08:45 PM																					
08:45 PM to 09:00 PM																					
SYSTEM PEAK HR (VEH.)		842				9	26				41	891				3	0				0
04:45 PM to 05:45 PM		1	10	831	0		0	14	0	12		0	0	862	29		0	0	0	0	
Peak Hour Factor (PHF)	Overall	U	Left	Thru	Right	SB	U	Left	Thru	Right	WB	U	Left	Thru	Right	NB	U	Left	Thru	Right	EB
	0.95	0.25	0.63	0.90	n/a	0.90	n/a	0.88	n/a	0.60	0.81	n/a	n/a	0.94	0.73	0.96	n/a	n/a	n/a	n/a	n/a

VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



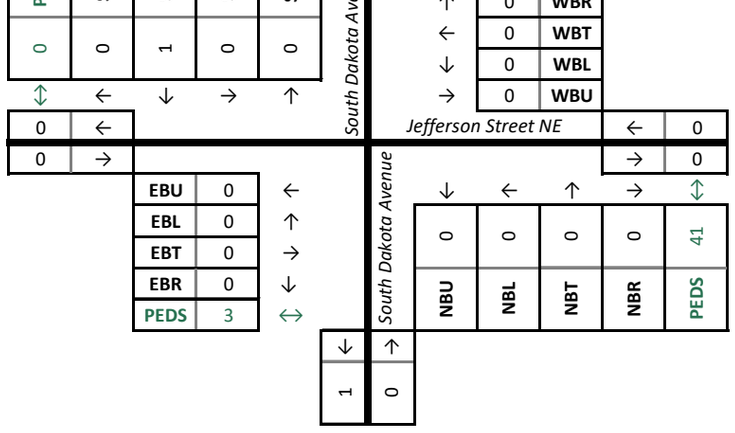
HEAVY VEHICLES (FHWA 4+)	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Jefferson Street NE					South Dakota Avenue									
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM to 04:15 PM		0	0	13	0		0	0	0	0		0	0	5	0		0	0	0	0	
04:15 PM to 04:30 PM		0	0	12	0		0	0	0	0		0	0	9	0		0	0	0	0	
04:30 PM to 04:45 PM		0	0	12	0		0	0	0	0		0	0	5	0		0	0	0	0	
04:45 PM to 05:00 PM		0	0	10	0		0	0	0	0		0	0	4	1		0	0	0	0	
05:00 PM to 05:15 PM		0	0	4	0		0	0	0	0		0	0	4	0		0	0	0	0	
05:15 PM to 05:30 PM		0	0	3	0		0	0	0	0		0	0	4	0		0	0	0	0	
05:30 PM to 05:45 PM		0	0	2	0		0	0	0	0		0	0	4	0		0	0	0	0	
05:45 PM to 06:00 PM		0	0	4	0		0	0	0	0		0	0	2	0		0	0	0	0	
06:00 PM to 06:15 PM		0	0	3	0		0	0	0	0		0	0	3	0		0	0	0	0	
06:15 PM to 06:30 PM		0	0	1	0		0	0	0	0		0	0	3	0		0	0	0	0	
06:30 PM to 06:45 PM		0	0	3	0		0	0	0	0		0	0	2	0		0	0	0	0	
06:45 PM to 07:00 PM		0	0	3	0		0	0	0	0		0	0	1	0		0	0	0	0	
07:00 PM to 07:15 PM																					
07:15 PM to 07:30 PM																					
07:30 PM to 07:45 PM																					
07:45 PM to 08:00 PM																					
08:00 PM to 08:15 PM																					
08:15 PM to 08:30 PM																					
08:30 PM to 08:45 PM																					
08:45 PM to 09:00 PM																					
SYSTEM PEAK HR (VEH.)		19					0					17					0				
04:45 PM to 05:45 PM		0	0	19	0		0	0	0	0		0	0	16	1		0	0	0	0	
Heavy Vehicle % (PHV):		0.0%	0.0%	2.3%	0.0%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	3.4%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%
INT. PEAK HR (HV ONLY)		47					0					24					0				
04:00 PM to 05:00 PM		0	0	47	0		0	0	0	0		0	0	23	1		0	0	0	0	
Heavy Vehicle % (PHV):		0.0%	0.0%	5.8%	0.0%	5.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%	4.8%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%

HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



BICYCLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Jefferson Street NE					South Dakota Avenue									
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM to 04:15 PM		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:15 PM to 04:30 PM		0	0	2	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:30 PM to 04:45 PM		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:45 PM to 05:00 PM		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:00 PM to 05:15 PM		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:15 PM to 05:30 PM		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:30 PM to 05:45 PM		0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:45 PM to 06:00 PM		0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:00 PM to 06:15 PM		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:15 PM to 06:30 PM		0	0	0	0		0	0	0	0		0	0	1	1		0	0	0	0	
06:30 PM to 06:45 PM		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:45 PM to 07:00 PM		0	0	0	0		0	0	0	0		0	0	1	0		0	0	0	0	
07:00 PM to 07:15 PM																					
07:15 PM to 07:30 PM																					
07:30 PM to 07:45 PM																					
07:45 PM to 08:00 PM																					
08:00 PM to 08:15 PM																					
08:15 PM to 08:30 PM																					
08:30 PM to 08:45 PM																					
08:45 PM to 09:00 PM																					
SYSTEM PEAK HR (VEH.)		1					0					0					0				
04:45 PM to 05:45 PM		0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
INT. PEAK HR (BIKES)		2					0					2					0				
05:30 PM to 06:30 PM		0	0	2	0		0	0	0	0		0	0	1	1		0	0	0	0	

PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

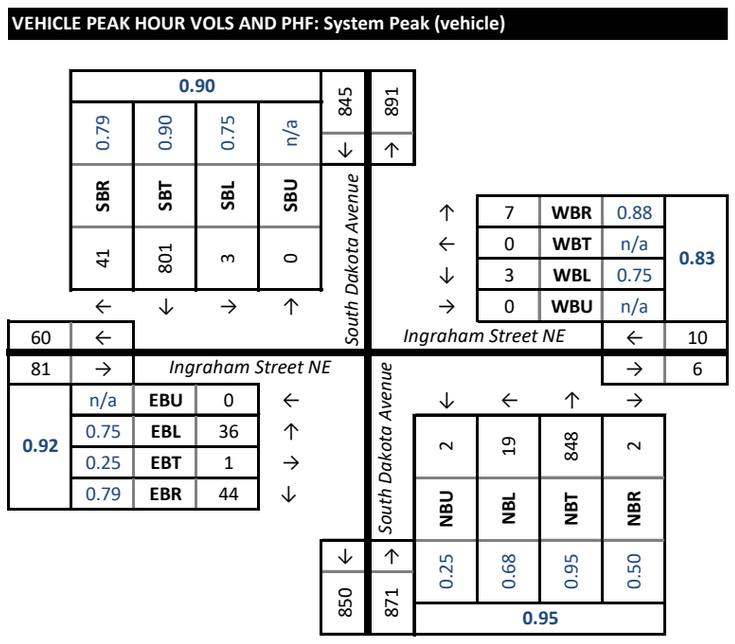
Project Name : UDC Bertie Backus CMP
Project # : 2919-001
Location : District of Columbia
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, September 20, 2022
Weather: Partly Cloudy

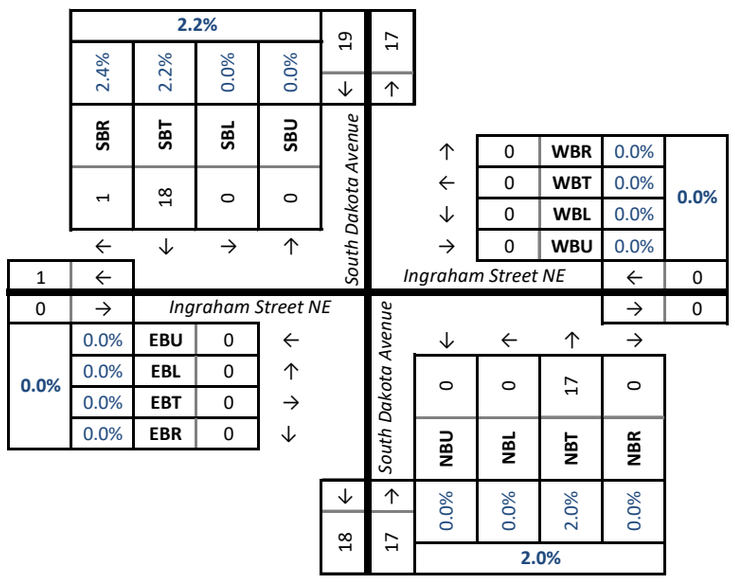
Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 04:45 PM to 05:45 PM
System Peak Hour (all vehicles): 04:45 PM to 05:45 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. South Dakota Avenue & Ingraham Street NE

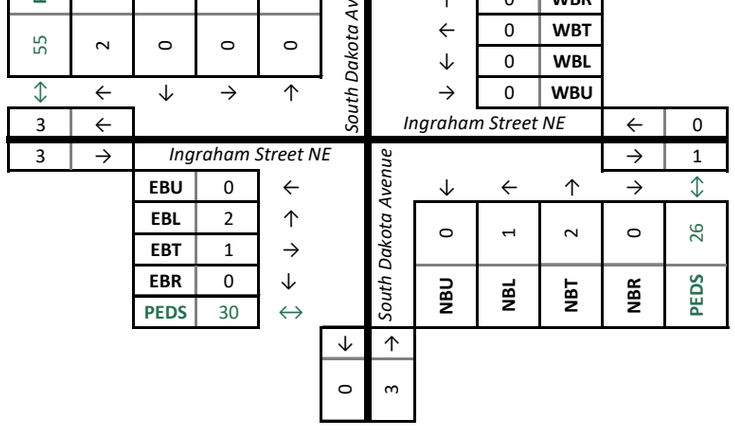
ALL VEHICLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Ingraham Street NE					South Dakota Avenue					Ingraham Street NE				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM	to 04:15 PM	0	1	200	13	3	0	0	0	2	8	1	4	190	2	8	0	7	0	12	11
04:15 PM	to 04:30 PM	0	0	203	8	2	0	0	1	1	17	0	5	207	1	9	0	12	0	3	6
04:30 PM	to 04:45 PM	0	0	189	8	1	0	0	0	1	8	0	8	194	2	4	0	11	1	4	5
04:45 PM	to 05:00 PM	0	1	198	8	2	0	0	0	1	12	0	5	202	1	7	0	7	1	12	12
05:00 PM	to 05:15 PM	0	0	183	10	4	0	1	0	2	3	0	7	223	0	4	0	8	0	14	16
05:15 PM	to 05:30 PM	0	1	197	13	2	0	1	0	2	4	0	2	213	1	14	0	12	0	8	12
05:30 PM	to 05:45 PM	0	1	223	10	5	0	1	0	2	7	2	5	210	0	5	0	9	0	10	15
05:45 PM	to 06:00 PM	0	2	199	14	5	0	0	0	3	8	0	7	152	1	6	0	11	0	10	10
06:00 PM	to 06:15 PM	0	3	191	8	4	0	0	0	3	8	0	3	168	0	3	0	8	0	18	15
06:15 PM	to 06:30 PM	0	2	172	8	0	1	0	0	3	9	0	4	153	1	6	0	18	1	11	8
06:30 PM	to 06:45 PM	0	0	168	16	5	0	0	0	1	6	0	3	136	0	6	0	10	0	6	7
06:45 PM	to 07:00 PM	0	2	169	11	5	0	4	1	3	7	0	3	130	3	8	0	10	2	9	5
07:00 PM	to 07:15 PM																				
07:15 PM	to 07:30 PM																				
07:30 PM	to 07:45 PM																				
07:45 PM	to 08:00 PM																				
08:00 PM	to 08:15 PM																				
08:15 PM	to 08:30 PM																				
08:30 PM	to 08:45 PM																				
08:45 PM	to 09:00 PM																				
SYSTEM PEAK HR (VEH.)		845				13	10				26	871				30	81				55
04:45 PM	to 05:45 PM	0	3	801	41		0	3	0	7		2	19	848	2		0	36	1	44	
Peak Hour Factor (PHF)	Overall	U	Left	Thru	Right	SB	U	Left	Thru	Right	WB	U	Left	Thru	Right	NB	U	Left	Thru	Right	EB
	0.96	n/a	0.75	0.90	0.79	0.90	n/a	0.75	n/a	0.88	0.83	0.25	0.68	0.95	0.50	0.95	n/a	0.75	0.25	0.79	0.92



HEAVY VEHICLES (FHWA 4+)	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Ingraham Street NE					South Dakota Avenue					Ingraham Street NE				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM	to 04:15 PM	0	1	12	0		0	0	0	0		0	0	4	0		0	0	0	0	
04:15 PM	to 04:30 PM	0	0	12	0		0	0	1	0		0	0	9	0		0	0	0	1	
04:30 PM	to 04:45 PM	0	0	12	0		0	0	0	0		0	1	5	0		0	0	0	0	
04:45 PM	to 05:00 PM	0	0	9	1		0	0	0	0		0	0	5	0		0	0	0	0	
05:00 PM	to 05:15 PM	0	0	4	0		0	0	0	0		0	0	4	0		0	0	0	0	
05:15 PM	to 05:30 PM	0	0	3	0		0	0	0	0		0	0	4	0		0	0	0	0	
05:30 PM	to 05:45 PM	0	0	2	0		0	0	0	0		0	0	4	0		0	0	0	0	
05:45 PM	to 06:00 PM	0	0	4	0		0	0	0	0		0	0	2	0		0	0	0	0	
06:00 PM	to 06:15 PM	0	0	3	0		0	0	0	0		0	0	3	0		0	0	0	0	
06:15 PM	to 06:30 PM	0	0	1	0		0	0	0	0		0	0	3	0		0	0	0	0	
06:30 PM	to 06:45 PM	0	0	3	0		0	0	0	0		0	0	2	0		0	0	0	0	
06:45 PM	to 07:00 PM	0	0	3	0		0	0	0	0		0	0	1	0		0	0	0	0	
07:00 PM	to 07:15 PM																				
07:15 PM	to 07:30 PM																				
07:30 PM	to 07:45 PM																				
07:45 PM	to 08:00 PM																				
08:00 PM	to 08:15 PM																				
08:15 PM	to 08:30 PM																				
08:30 PM	to 08:45 PM																				
08:45 PM	to 09:00 PM																				
SYSTEM PEAK HR (VEH.)		19					0					17					0				
04:45 PM	to 05:45 PM	0	0	18	1		0	0	0	0		0	0	17	0		0	0	0	0	
Heavy Vehicle % (PHV):		0.0%	0.0%	2.2%	2.4%	**2.2%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.0%	0.0%	**2.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
INT. PEAK HR (HV ONLY)		47					1					24					1				
04:00 PM	to 05:00 PM	0	1	45	1		0	0	1	0		0	1	23	0		0	0	0	1	
Heavy Vehicle % (PHV):		0.0%	50.0%	5.7%	2.7%	**5.7%**	0.0%	0.0%	100.0%	0.0%	**16.7%**	0.0%	4.5%	2.9%	0.0%	**2.9%**	0.0%	0.0%	0.0%	3.2%	**1.4%**



BICYCLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Ingraham Street NE					South Dakota Avenue					Ingraham Street NE				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM	to 04:15 PM	0	0	0	0		0	0	0	0		0	0	1	0		0	0	0	0	
04:15 PM	to 04:30 PM	0	0	3	3		0	0	0	0		0	0	0	0		0	1	0	0	
04:30 PM	to 04:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:45 PM	to 05:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:00 PM	to 05:15 PM	0	0	0	1		0	0	0	0		0	0	1	0		0	0	0	0	
05:15 PM	to 05:30 PM	0	0	0	0		0	0	0	0		0	0	1	0		0	2	1	0	
05:30 PM	to 05:45 PM	0	0	0	1		0	0	0	0		0	1	0	0		0	0	0	0	
05:45 PM	to 06:00 PM	0	0	1	0		0	0	1	0		0	0	0	0		0	0	1	1	
06:00 PM	to 06:15 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:15 PM	to 06:30 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	1	0	0	
06:30 PM	to 06:45 PM	0	0	0	0		0	0	0	0		0	0	1	0		0	0	0	0	
06:45 PM	to 07:00 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:00 PM	to 07:15 PM																				
07:15 PM	to 07:30 PM																				
07:30 PM	to 07:45 PM																				
07:45 PM	to 08:00 PM																				
08:00 PM	to 08:15 PM																				
08:15 PM	to 08:30 PM																				
08:30 PM	to 08:45 PM																				
08:45 PM	to 09:00 PM																				
SYSTEM PEAK HR (VEH.)		2					0					3					3				
04:45 PM	to 05:45 PM	0	0	0	2		0	0	0	0		0	1	2	0		0	2	1	0	
INT. PEAK HR (BIKES)		3					1					3					5				
05:00 PM	to 06:00 PM	0	0	1	2		0	0	1	0		0	1	2	0		0	2	2	1	



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

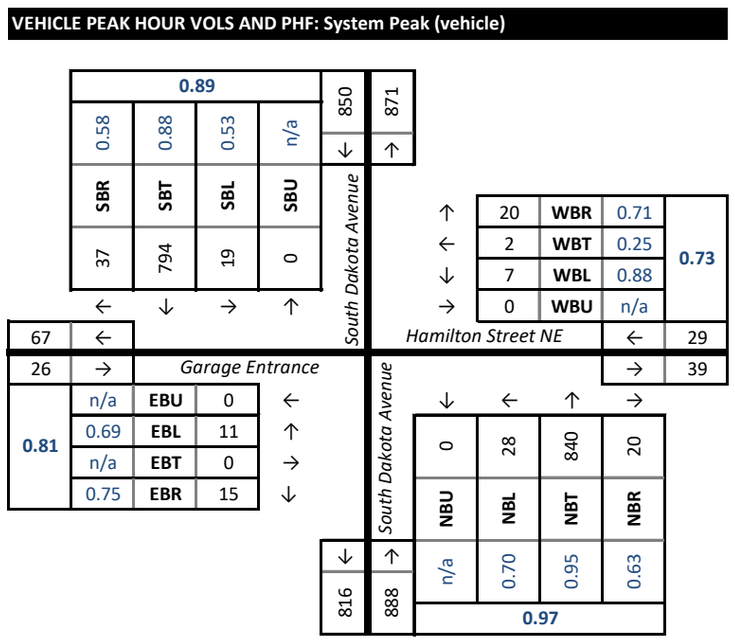
Project Name : UDC Bertie Backus CMP
Project # : 2919-001
Location : District of Columbia
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, September 20, 2022
Weather: Partly Cloudy

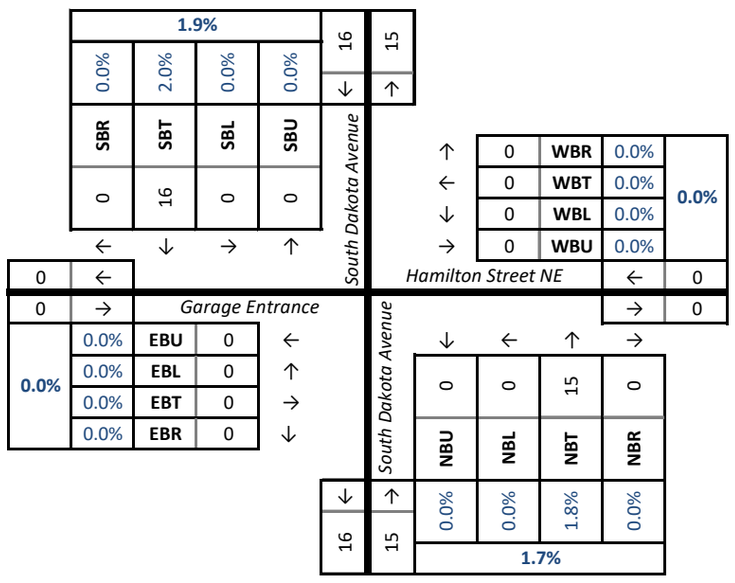
Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 04:45 PM to 05:45 PM
System Peak Hour (all vehicles): 04:45 PM to 05:45 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. South Dakota Avenue & Hamilton Street NE/Garage Entrance

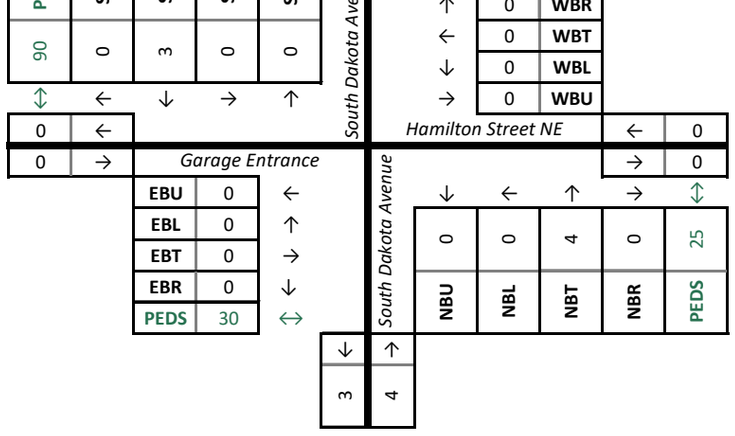
ALL VEHICLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Hamilton Street NE					South Dakota Avenue					Garage Entrance				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM		0	5	201	5	1	0	2	0	5	1	0	5	189	3	2	0	3	0	3	9
04:15 PM to 04:30 PM		0	5	196	5	1	0	3	0	5	5	0	2	206	4	3	0	2	1	2	6
04:30 PM to 04:45 PM		0	6	181	6	1	0	3	1	5	2	0	3	199	4	1	0	1	0	3	15
04:45 PM to 05:00 PM		0	4	196	8	0	0	2	2	6	10	0	3	199	8	10	0	3	0	5	15
05:00 PM to 05:15 PM		0	0	182	16	4	0	1	0	6	3	0	5	222	3	6	0	2	0	2	22
05:15 PM to 05:30 PM		0	9	191	6	0	0	2	0	1	7	0	10	211	7	6	0	4	0	4	24
05:30 PM to 05:45 PM		0	6	225	7	3	0	2	0	7	5	0	10	208	2	8	0	2	0	4	29
05:45 PM to 06:00 PM		0	2	193	14	1	0	1	0	3	6	0	14	143	2	5	0	6	0	5	27
06:00 PM to 06:15 PM		0	6	194	8	3	0	0	1	5	6	1	6	164	5	2	0	7	0	4	20
06:15 PM to 06:30 PM		0	6	165	12	1	0	4	0	4	6	0	10	151	4	4	0	3	0	7	31
06:30 PM to 06:45 PM		0	3	161	7	0	0	2	0	1	1	0	12	132	1	3	0	6	0	9	29
06:45 PM to 07:00 PM		0	4	162	16	3	0	0	0	3	4	0	8	126	3	9	0	7	1	6	20
07:00 PM to 07:15 PM																					
07:15 PM to 07:30 PM																					
07:30 PM to 07:45 PM																					
07:45 PM to 08:00 PM																					
08:00 PM to 08:15 PM																					
08:15 PM to 08:30 PM																					
08:30 PM to 08:45 PM																					
08:45 PM to 09:00 PM																					
SYSTEM PEAK HR (VEH.)		850				7	29				25	888				30	26				90
04:45 PM to 05:45 PM		0	19	794	37		0	7	2	20		0	28	840	20		0	11	0	15	
Peak Hour Factor (PHF)	Overall	U	Left	Thru	Right	SB	U	Left	Thru	Right	WB	U	Left	Thru	Right	NB	U	Left	Thru	Right	EB
	0.95	n/a	0.53	0.88	0.58	0.89	n/a	0.88	0.25	0.71	0.73	n/a	0.70	0.95	0.63	0.97	n/a	0.69	n/a	0.75	0.81



HEAVY VEHICLES (FHWA 4+)	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	South Dakota Avenue				Hamilton Street NE				South Dakota Avenue				Garage Entrance			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM		0	0	13	0	0	0	0	0	0	0	4	0	0	0	0	0
04:15 PM to 04:30 PM		0	0	13	0	0	1	0	0	0	0	9	0	0	0	0	0
04:30 PM to 04:45 PM		0	0	12	0	0	0	0	0	0	0	6	0	0	0	0	0
04:45 PM to 05:00 PM		0	0	9	0	0	0	0	0	0	0	4	0	0	0	0	0
05:00 PM to 05:15 PM		0	0	3	0	0	0	0	0	0	0	4	0	0	0	0	0
05:15 PM to 05:30 PM		0	0	3	0	0	0	0	0	0	0	4	0	0	0	0	0
05:30 PM to 05:45 PM		0	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0
05:45 PM to 06:00 PM		0	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0
06:00 PM to 06:15 PM		0	0	4	0	0	0	0	0	0	0	4	0	0	0	0	0
06:15 PM to 06:30 PM		0	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0
06:30 PM to 06:45 PM		0	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0
06:45 PM to 07:00 PM		0	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0
07:00 PM to 07:15 PM																	
07:15 PM to 07:30 PM																	
07:30 PM to 07:45 PM																	
07:45 PM to 08:00 PM																	
08:00 PM to 08:15 PM																	
08:15 PM to 08:30 PM																	
08:30 PM to 08:45 PM																	
08:45 PM to 09:00 PM																	
SYSTEM PEAK HR (VEH.)		16				0				15				0			
04:45 PM to 05:45 PM		0	0	16	0	0	0	0	0	0	0	15	0	0	0	0	0
Heavy Vehicle % (PHV):		0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%
		1.9%				0.0%				1.7%				0.0%			
INT. PEAK HR (HV ONLY)		47				1				23				0			
04:00 PM to 05:00 PM		0	0	47	0	0	1	0	0	0	0	23	0	0	0	0	0
Heavy Vehicle % (PHV):		0.0%	0.0%	6.1%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%
		5.7%				2.9%				2.8%				0.0%			



BICYCLES	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	South Dakota Avenue				Hamilton Street NE				South Dakota Avenue				Garage Entrance			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM		0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
04:15 PM to 04:30 PM		0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM		0	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0
05:15 PM to 05:30 PM		0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:30 PM to 05:45 PM		0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM		0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0
06:00 PM to 06:15 PM		0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM		0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
06:30 PM to 06:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM		0	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0
07:00 PM to 07:15 PM																	
07:15 PM to 07:30 PM																	
07:30 PM to 07:45 PM																	
07:45 PM to 08:00 PM																	
08:00 PM to 08:15 PM																	
08:15 PM to 08:30 PM																	
08:30 PM to 08:45 PM																	
08:45 PM to 09:00 PM																	
SYSTEM PEAK HR (VEH.)		3				0				4				0			
04:45 PM to 05:45 PM		0	0	3	0	0	0	0	0	0	0	4	0	0	0	0	0
INT. PEAK HR (BIKES)		5				0				5				0			
05:00 PM to 06:00 PM		0	0	5	0	0	0	0	0	0	0	5	0	0	0	0	0



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : UDC Bertie Backus CMP
Project # : 2919-001
Location : District of Columbia
Data Source: Gorove/Slade Associates, Inc.

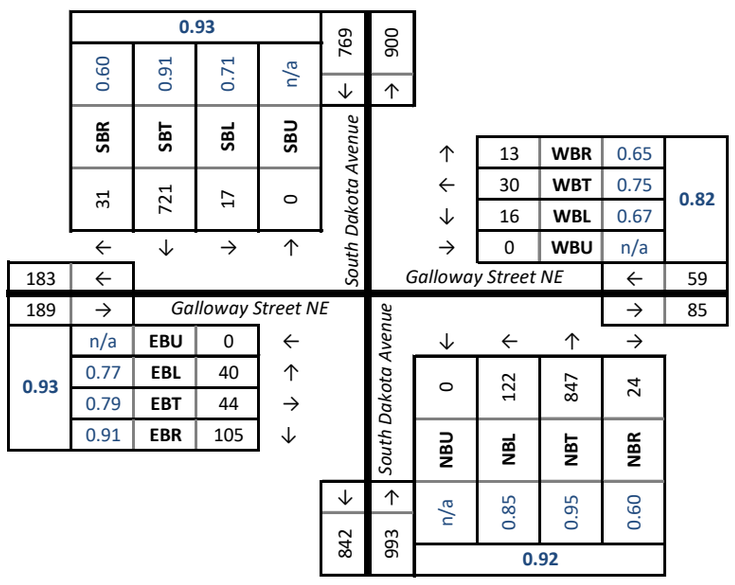
Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, September 20, 2022
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 04:45 PM to 05:45 PM
System Peak Hour (all vehicles): 04:45 PM to 05:45 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. South Dakota Avenue & Galloway Street NE

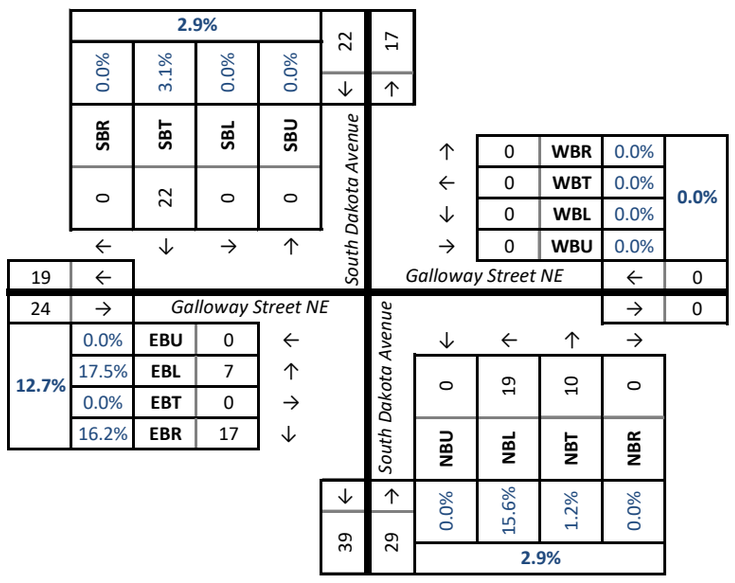
ALL VEHICLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Galloway Street NE					South Dakota Avenue					Galloway Street NE				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM		0	3	177	5	6	0	4	9	1	1	0	37	205	8	1	0	9	5	35	5
04:15 PM to 04:30 PM		0	0	205	3	12	1	9	9	5	2	0	31	185	7	4	0	15	11	36	7
04:30 PM to 04:45 PM		0	3	193	4	4	0	3	13	1	3	0	37	178	3	0	0	9	10	20	3
04:45 PM to 05:00 PM		0	5	174	4	15	0	5	7	5	9	0	36	224	10	5	0	11	7	24	7
05:00 PM to 05:15 PM		0	6	170	13	15	0	6	10	2	3	0	34	194	6	5	0	6	14	25	6
05:15 PM to 05:30 PM		0	1	180	9	13	0	3	6	3	5	0	30	213	4	1	0	13	11	27	14
05:30 PM to 05:45 PM		0	5	197	5	8	0	2	7	3	5	0	22	216	4	2	0	10	12	29	13
05:45 PM to 06:00 PM		0	4	207	5	10	0	2	7	3	3	0	25	167	5	1	0	7	10	31	9
06:00 PM to 06:15 PM		0	2	184	8	14	0	2	6	2	6	0	32	151	4	2	0	14	12	33	5
06:15 PM to 06:30 PM		0	5	172	5	5	0	3	7	1	3	0	28	161	3	7	0	7	3	30	7
06:30 PM to 06:45 PM		0	2	174	5	8	0	4	5	4	3	0	19	145	3	2	0	9	5	21	11
06:45 PM to 07:00 PM		0	1	153	5	6	0	5	4	2	1	0	24	112	1	3	0	6	2	20	8
07:00 PM to 07:15 PM																					
07:15 PM to 07:30 PM																					
07:30 PM to 07:45 PM																					
07:45 PM to 08:00 PM																					
08:00 PM to 08:15 PM																					
08:15 PM to 08:30 PM																					
08:30 PM to 08:45 PM																					
08:45 PM to 09:00 PM																					
SYSTEM PEAK HR (VEH.)		769				51	59				22	993				13	189				40
04:45 PM to 05:45 PM		0	17	721	31		0	16	30	13		0	122	847	24		0	40	44	105	
Peak Hour Factor (PHF)	Overall	U	Left	Thru	Right	SB	U	Left	Thru	Right	WB	U	Left	Thru	Right	NB	U	Left	Thru	Right	EB
	0.98	n/a	0.71	0.91	0.60	0.93	n/a	0.67	0.75	0.65	0.82	n/a	0.85	0.95	0.60	0.92	n/a	0.77	0.79	0.91	0.93

VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



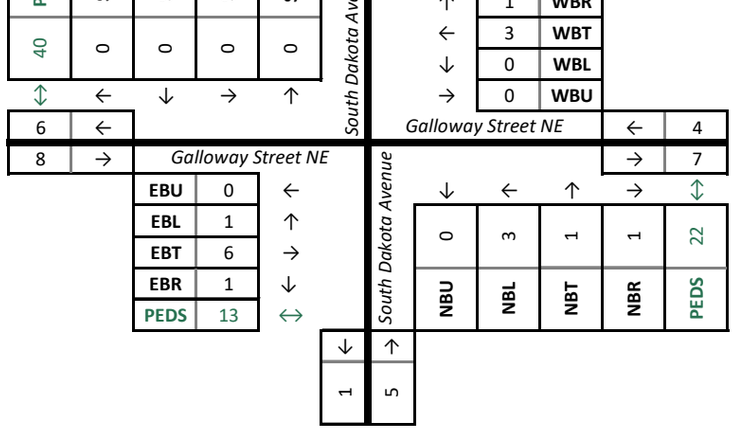
HEAVY VEHICLES (FHWA 4+)	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Galloway Street NE					South Dakota Avenue					Galloway Street NE				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM to 04:15 PM		0	0	12	0		0	1	0	0		0	5	4	0		0	1	0	5	
04:15 PM to 04:30 PM		0	0	11	0		0	0	0	0		0	5	7	0		0	2	0	4	
04:30 PM to 04:45 PM		0	0	13	0		0	0	0	0		0	3	2	0		0	1	0	3	
04:45 PM to 05:00 PM		0	0	13	0		0	0	0	0		0	6	4	0		0	2	0	5	
05:00 PM to 05:15 PM		0	0	4	0		0	0	0	0		0	3	2	0		0	2	0	4	
05:15 PM to 05:30 PM		0	0	3	0		0	0	0	0		0	5	3	0		0	1	0	4	
05:30 PM to 05:45 PM		0	0	2	0		0	0	0	0		0	5	1	0		0	2	0	4	
05:45 PM to 06:00 PM		0	0	4	0		0	0	0	0		0	1	1	0		0	1	0	4	
06:00 PM to 06:15 PM		0	0	5	0		0	0	0	0		0	9	1	0		0	3	0	6	
06:15 PM to 06:30 PM		0	0	0	0		0	0	0	0		0	3	2	0		0	1	0	7	
06:30 PM to 06:45 PM		0	0	2	0		0	0	0	0		0	1	0	0		0	2	1	3	
06:45 PM to 07:00 PM		0	0	4	0		0	0	0	0		0	8	0	0		0	2	0	5	
07:00 PM to 07:15 PM																					
07:15 PM to 07:30 PM																					
07:30 PM to 07:45 PM																					
07:45 PM to 08:00 PM																					
08:00 PM to 08:15 PM																					
08:15 PM to 08:30 PM																					
08:30 PM to 08:45 PM																					
08:45 PM to 09:00 PM																					
SYSTEM PEAK HR (VEH.)		22					0					29					24				
04:45 PM to 05:45 PM		0	0	22	0		0	0	0	0		0	19	10	0		0	7	0	17	
Heavy Vehicle % (PHV):		0.0%	0.0%	3.1%	0.0%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	15.6%	1.2%	0.0%	2.9%	0.0%	17.5%	0.0%	16.2%	12.7%
INT. PEAK HR (HV ONLY)		49					1					36					23				
04:00 PM to 05:00 PM		0	0	49	0		0	1	0	0		0	19	17	0		0	6	0	17	
Heavy Vehicle % (PHV):		0.0%	0.0%	6.5%	0.0%	6.3%	0.0%	4.8%	0.0%	0.0%	1.4%	0.0%	13.5%	2.1%	0.0%	3.7%	0.0%	13.6%	0.0%	14.8%	12.0%

HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



BICYCLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Galloway Street NE					South Dakota Avenue					Galloway Street NE				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM to 04:15 PM		0	0	0	0		0	0	1	0		0	0	2	0		0	0	0	0	
04:15 PM to 04:30 PM		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:30 PM to 04:45 PM		0	0	2	0		0	0	1	0		0	0	0	0		0	1	1	0	
04:45 PM to 05:00 PM		0	0	0	0		0	0	0	0		0	0	0	1		0	1	0	0	
05:00 PM to 05:15 PM		0	0	0	0		0	0	1	0		0	0	0	0		0	0	3	0	
05:15 PM to 05:30 PM		0	0	0	0		0	0	2	1		0	2	1	0		0	0	0	1	
05:30 PM to 05:45 PM		0	0	0	0		0	0	0	0		0	1	0	0		0	0	3	0	
05:45 PM to 06:00 PM		0	0	1	0		0	0	1	0		0	0	1	0		0	0	1	1	
06:00 PM to 06:15 PM		0	0	0	0		0	0	1	0		0	0	0	0		0	0	2	1	
06:15 PM to 06:30 PM		0	0	0	0		0	0	2	0		0	2	0	0		0	0	0	0	
06:30 PM to 06:45 PM		0	0	0	0		0	0	2	0		0	0	0	0		0	0	2	3	
06:45 PM to 07:00 PM		0	0	1	0		0	0	2	0		0	0	1	0		0	0	0	0	
07:00 PM to 07:15 PM																					
07:15 PM to 07:30 PM																					
07:30 PM to 07:45 PM																					
07:45 PM to 08:00 PM																					
08:00 PM to 08:15 PM																					
08:15 PM to 08:30 PM																					
08:30 PM to 08:45 PM																					
08:45 PM to 09:00 PM																					
SYSTEM PEAK HR (VEH.)		0					4					5					8				
04:45 PM to 05:45 PM		0	0	0	0		0	0	3	1		0	3	1	1		0	1	6	1	
INT. PEAK HR (BIKES)		1					5					5					9				
05:00 PM to 06:00 PM		0	0	1	0		0	0	4	1		0	3	2	0		0	0	7	2	

PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : UDC Bertie Backus CMP
Project # : 2919-001
Location : District of Columbia
Data Source: Gorove/Slade Associates, Inc.

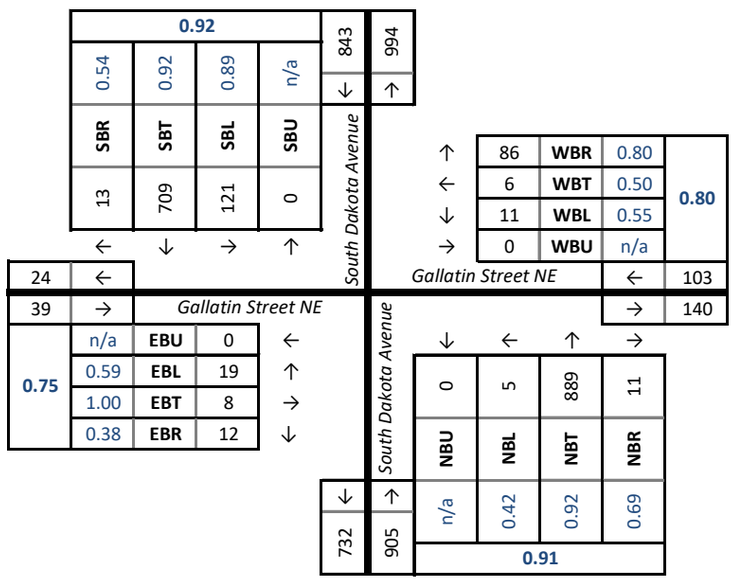
Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, September 20, 2022
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 04:00 PM to 05:00 PM
System Peak Hour (all vehicles): 04:45 PM to 05:45 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. South Dakota Avenue & Gallatin Street NE

ALL VEHICLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Gallatin Street NE					South Dakota Avenue					Gallatin Street NE				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM		0	36	177	5	1	0	6	2	22	3	0	0	223	1	4	0	5	2	3	14
04:15 PM to 04:30 PM		0	22	225	3	0	0	6	0	26	9	0	0	196	4	3	0	1	3	4	6
04:30 PM to 04:45 PM		0	32	182	2	0	0	3	0	25	2	0	1	190	4	3	0	4	6	3	5
04:45 PM to 05:00 PM		0	33	166	4	1	0	2	1	20	13	0	2	242	4	2	0	8	2	2	4
05:00 PM to 05:15 PM		0	30	170	2	1	0	5	0	27	7	0	3	205	3	1	0	2	2	0	1
05:15 PM to 05:30 PM		0	24	180	6	1	0	4	2	24	5	0	0	221	2	6	0	3	2	8	20
05:30 PM to 05:45 PM		0	34	193	1	0	0	0	3	15	3	0	0	221	2	2	0	6	2	2	8
05:45 PM to 06:00 PM		0	35	203	2	1	0	5	1	26	10	0	0	171	2	1	0	1	0	2	10
06:00 PM to 06:15 PM		0	35	179	5	3	0	1	2	21	4	0	0	165	0	1	0	1	3	4	8
06:15 PM to 06:30 PM		0	20	180	5	0	0	0	2	21	5	0	0	168	2	0	0	3	2	0	11
06:30 PM to 06:45 PM		0	23	174	2	1	0	2	2	19	5	0	0	142	0	8	0	6	1	1	14
06:45 PM to 07:00 PM		0	35	141	2	0	0	2	1	21	1	0	0	114	2	1	0	2	1	1	6
07:00 PM to 07:15 PM																					
07:15 PM to 07:30 PM																					
07:30 PM to 07:45 PM																					
07:45 PM to 08:00 PM																					
08:00 PM to 08:15 PM																					
08:15 PM to 08:30 PM																					
08:30 PM to 08:45 PM																					
08:45 PM to 09:00 PM																					
SYSTEM PEAK HR (VEH.)		843				3	103				28	905				11	39				33
04:45 PM to 05:45 PM		0	121	709	13		0	11	6	86		0	5	889	11		0	19	8	12	
Peak Hour Factor (PHF)	Overall 0.97	U n/a	Left 0.89	Thru 0.92	Right 0.54	SB 0.92	U n/a	Left 0.55	Thru 0.50	Right 0.80	WB 0.80	U n/a	Left 0.42	Thru 0.92	Right 0.69	NB 0.91	U n/a	Left 0.59	Thru 1.00	Right 0.38	EB 0.75

VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEHICLES (FHWA 4+)	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Gallatin Street NE					South Dakota Avenue					Gallatin Street NE				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM to 04:15 PM		0	1	16	1		0	0	0	1		0	0	8	0		0	0	0	0	
04:15 PM to 04:30 PM		0	1	14	0		0	0	0	1		0	0	11	0		0	0	0	0	
04:30 PM to 04:45 PM		0	2	14	0		0	0	0	2		0	0	3	0		0	0	0	0	
04:45 PM to 05:00 PM		0	2	16	0		0	0	0	0		0	1	9	0		0	1	0	0	
05:00 PM to 05:15 PM		0	1	8	0		0	0	0	2		0	1	3	0		0	0	0	0	
05:15 PM to 05:30 PM		0	0	7	0		0	0	0	1		0	0	6	0		0	0	0	1	
05:30 PM to 05:45 PM		0	1	5	0		0	0	0	2		0	0	4	0		0	0	0	0	
05:45 PM to 06:00 PM		0	1	7	0		0	0	0	2		0	0	1	0		0	0	0	0	
06:00 PM to 06:15 PM		0	3	8	0		0	0	0	0		0	0	10	0		0	0	0	0	
06:15 PM to 06:30 PM		0	1	6	0		0	0	0	1		0	0	3	0		0	1	0	0	
06:30 PM to 06:45 PM		0	0	5	0		0	0	0	1		0	0	1	0		0	0	0	0	
06:45 PM to 07:00 PM		0	3	6	0		0	0	0	1		0	0	7	0		0	0	0	1	
07:00 PM to 07:15 PM																					
07:15 PM to 07:30 PM																					
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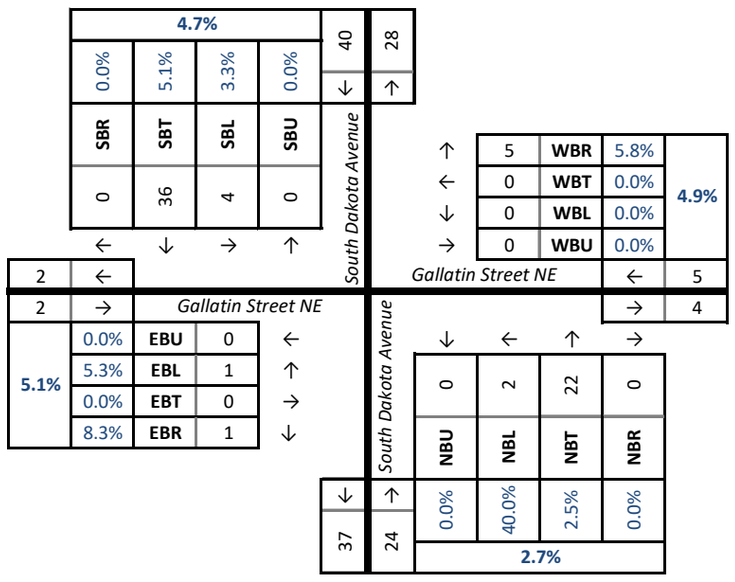
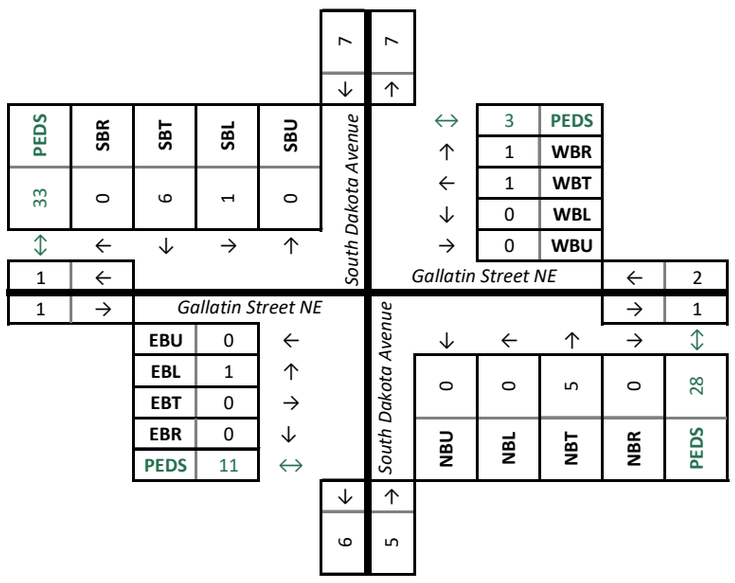
07:45 PM to 08:00 PM																					
08:00 PM to 08:15 PM																					
08:15 PM to 08:30 PM																					
08:30 PM to 08:45 PM																					
08:45 PM to 09:00 PM																					
SYSTEM PEAK HR (VEH.)		40					5					24					2				
04:45 PM to 05:45 PM		0	4	36	0		0	0	0	5		0	2	22	0		0	1	0	1	
Heavy Vehicle % (PHV):		0.0%	3.3%	5.1%	0.0%	4.7%	0.0%	0.0%	0.0%	5.8%	4.9%	0.0%	40.0%	2.5%	0.0%	2.7%	0.0%	5.3%	0.0%	8.3%	5.1%
INT. PEAK HR (HV ONLY)		67					4					32					1				
04:00 PM to 05:00 PM		0	6	60	1		0	0	0	4		0	1	31	0		0	1	0	0	
Heavy Vehicle % (PHV):		0.0%	4.9%	8.0%	7.1%	7.6%	0.0%	0.0%	0.0%	4.3%	3.5%	0.0%	33.3%	3.6%	0.0%	3.7%	0.0%	5.6%	0.0%	0.0%	2.3%

HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



BICYCLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Dakota Avenue					Gallatin Street NE					South Dakota Avenue					Gallatin Street NE				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM to 04:15 PM		0	0	0	2		0	0	0	0		0	0	2	0		0	1	0	0	
04:15 PM to 04:30 PM		0	0	3	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:30 PM to 04:45 PM		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:45 PM to 05:00 PM		0	1	2	0		0	0	0	0		0	0	1	0		0	1	0	0	
05:00 PM to 05:15 PM		0	0	2	0		0	0	0	0		0	0	3	0		0	0	0	0	
05:15 PM to 05:30 PM		0	0	1	0		0	0	1	0		0	0	0	0		0	0	0	0	
05:30 PM to 05:45 PM		0	0	1	0		0	0	0	1		0	0	1	0		0	0	0	0	
05:45 PM to 06:00 PM		0	0	2	0		0	0	0	0		0	0	0	0		0	0	1	0	
06:00 PM to 06:15 PM		0	0	0	0		0	0	0	0		0	0	2	0		0	0	0	0	
06:15 PM to 06:30 PM		0	0	3	0		0	0	1	0		0	0	0	0		0	0	1	0	
06:30 PM to 06:45 PM		0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:45 PM to 07:00 PM		0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:00 PM to 07:15 PM																					
07:15 PM to 07:30 PM																					
07:30 PM to 07:45 PM																					
07:45 PM to 08:00 PM																					
08:00 PM to 08:15 PM																					
08:15 PM to 08:30 PM																					
08:30 PM to 08:45 PM																					
08:45 PM to 09:00 PM																					
SYSTEM PEAK HR (VEH.)		7					2					5					1				
04:45 PM to 05:45 PM		0	1	6	0		0	0	1	1		0	0	5	0		0	1	0	0	
INT. PEAK HR (BIKES)		7					2					5					1				
04:45 PM to 05:45 PM		0	1	6	0		0	0	1	1		0	0	5	0		0	1	0	0	

PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : UDC Bertie Backus CMP
Project # : 2919-001
Location District of Columbia
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, September 20, 2022
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 04:00 PM to 05:00 PM
System Peak Hour (all vehicles): 04:45 PM to 05:45 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. /North Site Entrance & Hamilton Street NE

ALL VEHICLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:						Hamilton Street NE					North Site Entrance					Hamilton Street NE				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM		0	0	0	0	0	0	0	5	0	0	0	1	0	0	1	0	0	8	1	1
04:15 PM to 04:30 PM		0	0	0	0	0	0	0	7	0	0	0	2	0	3	4	0	0	6	0	1
04:30 PM to 04:45 PM		0	0	0	0	0	0	0	3	0	0	0	5	0	2	2	0	0	8	0	0
04:45 PM to 05:00 PM		0	0	0	0	0	0	0	7	0	1	0	2	0	1	2	0	0	12	0	0
05:00 PM to 05:15 PM		0	0	0	0	0	0	0	8	0	0	0	1	0	0	2	0	0	5	0	0
05:15 PM to 05:30 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	8	1	0
05:30 PM to 05:45 PM		0	0	0	0	0	0	0	5	0	0	0	2	0	0	10	0	0	8	1	0
05:45 PM to 06:00 PM		0	0	0	0	0	0	0	3	0	0	0	1	0	0	7	0	0	4	0	0
06:00 PM to 06:15 PM		0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	0	0	8	0	0
06:15 PM to 06:30 PM		0	0	0	0	0	0	0	9	0	0	0	0	0	0	2	0	0	13	0	0
06:30 PM to 06:45 PM		0	0	0	0	0	0	0	4	0	0	0	0	0	0	2	0	0	3	0	0
06:45 PM to 07:00 PM		0	0	0	0	0	0	0	3	0	0	0	0	0	0	8	0	0	4	0	0
07:00 PM to 07:15 PM																					
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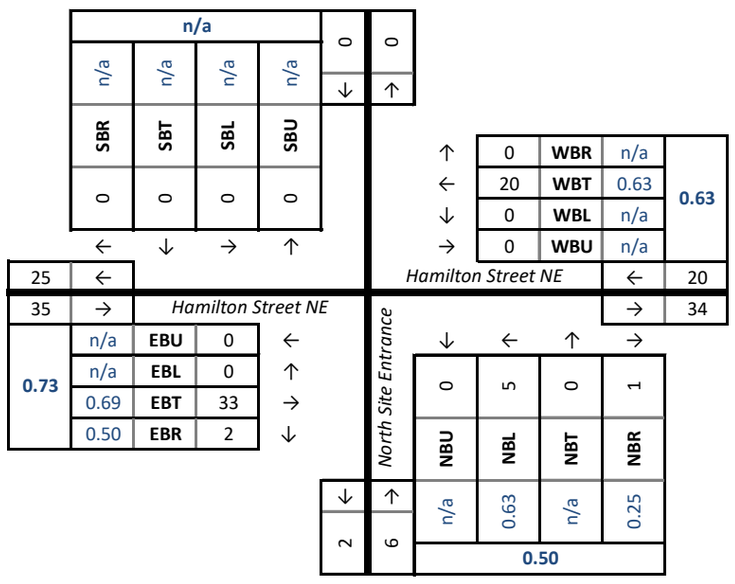
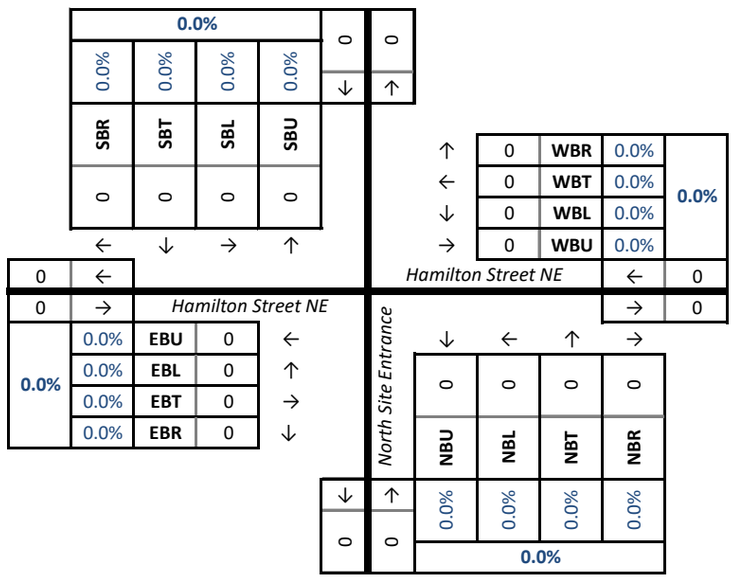
07:45 PM to 08:00 PM																					
08:00 PM to 08:15 PM																					
08:15 PM to 08:30 PM																					
08:30 PM to 08:45 PM																					
08:45 PM to 09:00 PM																					
SYSTEM PEAK HR (VEH.)		0				0	20				1	6				15	35				0
04:45 PM to 05:45 PM		0	0	0	0		0	0	20	0		0	5	0	1		0	0	33	2	
Peak Hour Factor (PHF)	Overall 0.69	U n/a	Left n/a	Thru n/a	Right n/a	SB n/a	U n/a	Left n/a	Thru 0.63	Right n/a	WB 0.63	U n/a	Left 0.63	Thru n/a	Right 0.25	NB 0.50	U n/a	Left n/a	Thru 0.69	Right 0.50	EB 0.73

VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



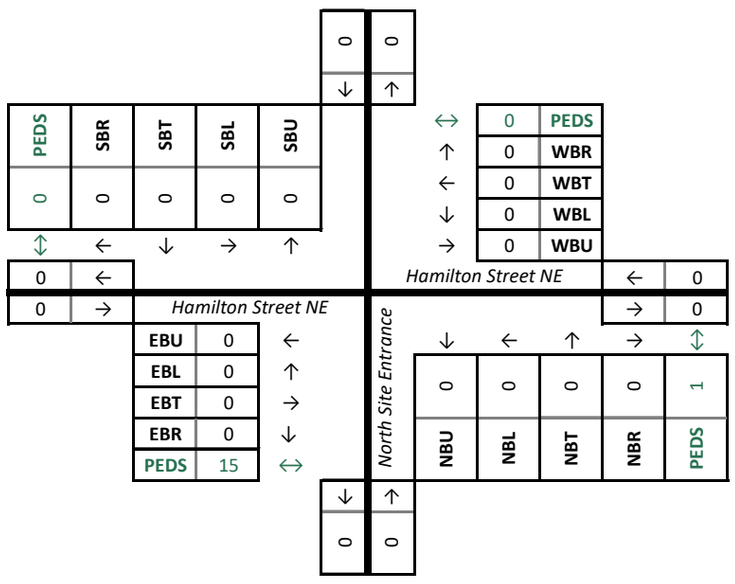
HEAVY VEHICLES (FHWA 4+)	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:					Hamilton Street NE				North Site Entrance				Hamilton Street NE			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM		0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM to 05:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																	
07:15 PM to 07:30 PM																	
07:30 PM to 07:45 PM																	
07:45 PM to 08:00 PM																	
08:00 PM to 08:15 PM																	
08:15 PM to 08:30 PM																	
08:30 PM to 08:45 PM																	
08:45 PM to 09:00 PM																	
SYSTEM PEAK HR (VEH.)		0				0				0				0			
04:45 PM to 05:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
INT. PEAK HR (HV ONLY)		0				2				0				0			
04:00 PM to 05:00 PM		0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



BICYCLES	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:					Hamilton Street NE				North Site Entrance				Hamilton Street NE			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
04:15 PM to 04:30 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:45 PM to 05:00 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM to 05:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																	
07:15 PM to 07:30 PM																	
07:30 PM to 07:45 PM																	
07:45 PM to 08:00 PM																	
08:00 PM to 08:15 PM																	
08:15 PM to 08:30 PM																	
08:30 PM to 08:45 PM																	
08:45 PM to 09:00 PM																	
SYSTEM PEAK HR (VEH.)		0				0				0				0			
04:45 PM to 05:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)		0				0				1				1			
04:00 PM to 05:00 PM		0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0

PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : UDC Bertie Backus CMP
Project # : 2919-001
Location District of Columbia
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, September 20, 2022
Weather: Partly Cloudy

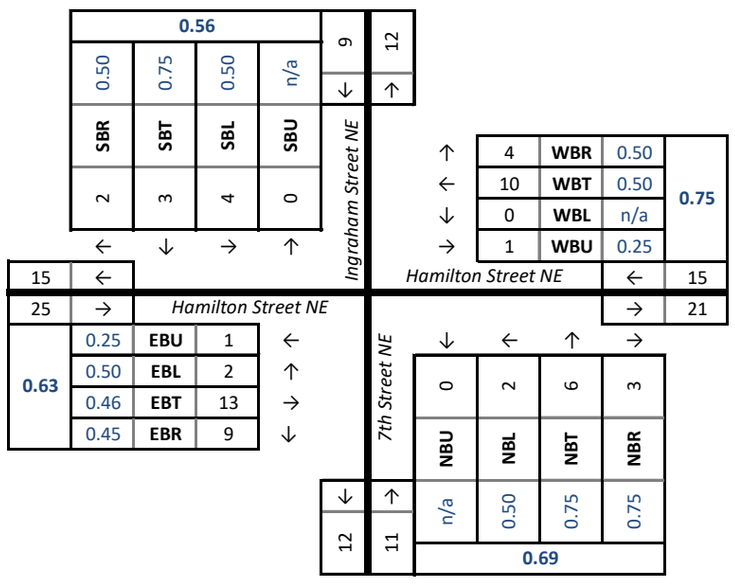
Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 04:00 PM to 05:00 PM
System Peak Hour (all vehicles): 04:45 PM to 05:45 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. Ingraham Street NE/7th Street NE & Hamilton Street NE

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	Ingraham Street NE					Hamilton Street NE					7th Street NE					Hamilton Street NE				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	0	0	1	1	0	1	3	1	0	0	0	1	1	2	0	1	5	1	0
04:15 PM to 04:30 PM	0	0	0	1	0	0	0	3	1	2	1	1	0	2	2	0	1	5	4	0
04:30 PM to 04:45 PM	0	0	0	1	1	0	0	2	1	0	0	0	0	0	0	0	1	8	1	0
04:45 PM to 05:00 PM	0	1	0	1	2	0	0	5	0	0	0	0	1	1	0	0	0	7	3	1
05:00 PM to 05:15 PM	0	1	1	0	0	0	0	2	1	0	0	1	1	0	0	0	1	3	0	0
05:15 PM to 05:30 PM	0	0	1	0	1	0	0	1	1	1	0	1	2	1	5	0	1	2	5	1
05:30 PM to 05:45 PM	0	2	1	1	1	1	0	2	2	0	0	0	2	1	3	1	0	1	1	1
05:45 PM to 06:00 PM	0	0	1	1	3	0	0	1	1	1	0	1	1	0	1	0	2	1	0	1
06:00 PM to 06:15 PM	1	2	0	0	0	0	1	1	1	0	0	1	2	0	1	0	0	6	2	0
06:15 PM to 06:30 PM	0	0	0	3	0	0	1	3	1	0	0	0	2	0	2	0	3	4	3	0
06:30 PM to 06:45 PM	0	1	0	1	2	0	3	2	1	2	1	0	1	1	1	0	0	1	0	1
06:45 PM to 07:00 PM	0	3	0	1	0	0	0	2	2	0	0	0	1	0	1	0	2	1	1	0
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
SYSTEM PEAK HR (VEH.)	9				4	15				1	11				8	25				3
04:45 PM to 05:45 PM	0	4	3	2		1	0	10	4		0	2	6	3		1	2	13	9	
Peak Hour Factor (PHF) Overall **0.79**	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
	n/a	0.50	0.75	0.50	**0.56**	0.25	n/a	0.50	0.50	**0.75**	n/a	0.50	0.75	0.75	**0.69**	0.25	0.50	0.46	0.45	**0.63**

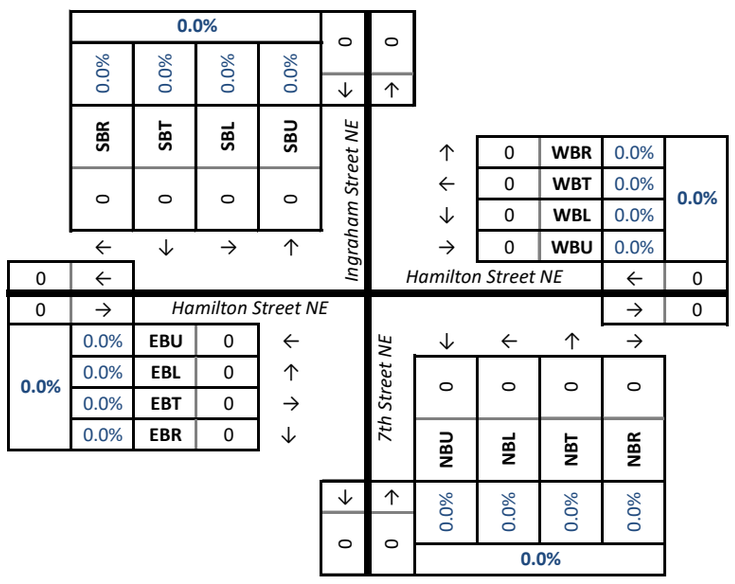
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	Ingraham Street NE				Hamilton Street NE				7th Street NE				Hamilton Street NE			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
SYSTEM PEAK HR (VEH.)	0				0				0				0			
04:45 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0% **0.0%**	0.0%	0.0%	0.0%	0.0% **0.0%**	0.0%	0.0%	0.0%	0.0% **0.0%**	0.0%	0.0%	0.0%	0.0% **0.0%**
INT. PEAK HR (HV ONLY)	0				1				0				0			
04:00 PM to 05:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0% **0.0%**	0.0%	0.0%	0.0%	33.3% **5.9%**	0.0%	0.0%	0.0%	0.0% **0.0%**	0.0%	0.0%	0.0%	0.0% **0.0%**

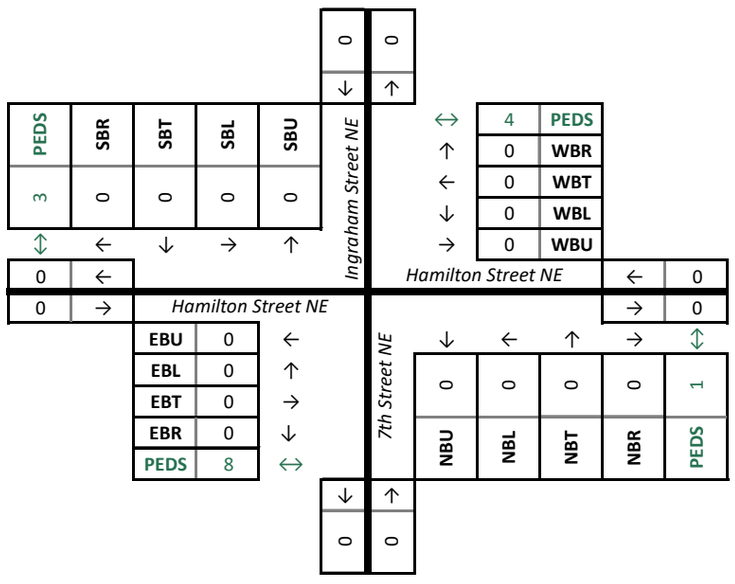
HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	Ingraham Street NE				Hamilton Street NE				7th Street NE				Hamilton Street NE			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
SYSTEM PEAK HR (VEH.)	0				0				0				0			
04:45 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)	0				0				0				0			
04:00 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : UDC Bertie Backus CMP
Project # : 2919-001
Location District of Columbia
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, September 20, 2022
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 04:15 PM to 05:15 PM
System Peak Hour (all vehicles): 04:45 PM to 05:45 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. South Site Entrance/ & Galloway Street NE

ALL VEHICLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Site Entrance					Galloway Street NE										Galloway Street NE				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM	to 04:15 PM	0	0	0	0	10	0	0	13	0	0	0	0	0	0	0	1	3	12	0	0
04:15 PM	to 04:30 PM	0	0	0	4	10	0	0	20	0	0	0	0	0	0	0	0	2	16	0	0
04:30 PM	to 04:45 PM	0	0	0	5	15	0	0	12	0	0	0	0	0	0	0	0	2	14	0	0
04:45 PM	to 05:00 PM	0	0	0	1	14	0	0	16	0	0	0	0	0	0	0	0	6	17	0	0
05:00 PM	to 05:15 PM	0	0	0	1	10	0	0	17	2	0	0	0	0	0	0	0	6	20	0	0
05:15 PM	to 05:30 PM	0	0	0	0	12	0	0	12	1	0	0	0	0	0	0	0	2	14	0	0
05:30 PM	to 05:45 PM	0	0	0	2	9	0	0	10	2	0	0	0	0	0	0	0	3	18	0	0
05:45 PM	to 06:00 PM	0	0	0	1	8	0	0	12	0	0	0	0	0	0	0	0	3	16	0	0
06:00 PM	to 06:15 PM	0	0	0	1	9	0	0	10	0	0	0	0	0	0	0	0	1	16	0	0
06:15 PM	to 06:30 PM	0	0	0	1	7	0	0	10	0	0	0	0	0	0	0	0	1	10	0	0
06:30 PM	to 06:45 PM	0	0	0	0	8	0	0	13	0	0	0	0	0	0	0	0	1	9	0	0
06:45 PM	to 07:00 PM	0	0	0	3	5	0	0	9	0	0	0	0	0	0	0	1	3	5	0	0
07:00 PM	to 07:15 PM																				
07:15 PM	to 07:30 PM																				
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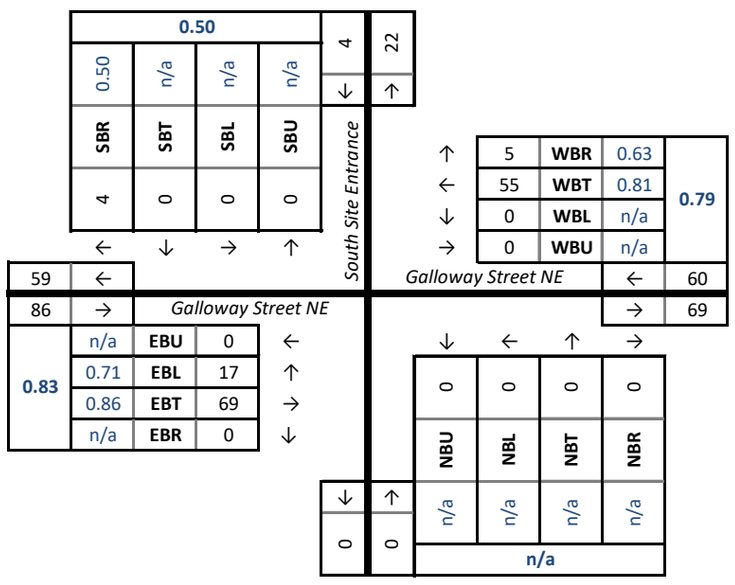
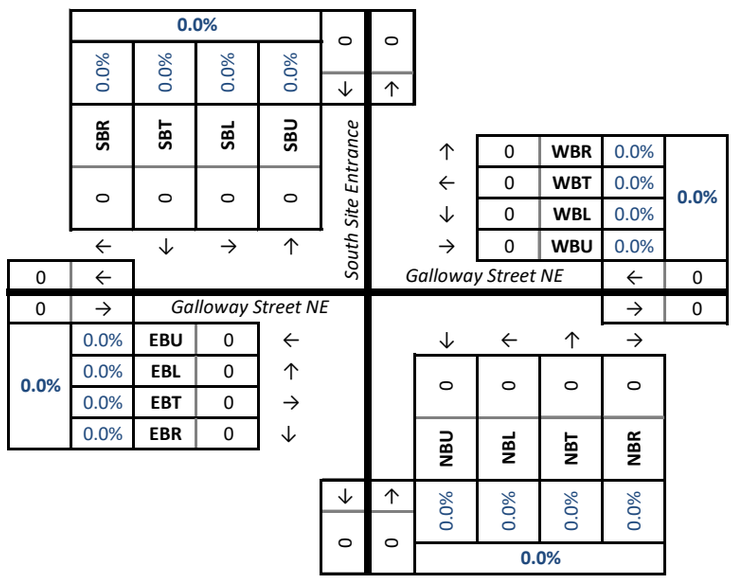
07:45 PM	to 08:00 PM																				
08:00 PM	to 08:15 PM																				
08:15 PM	to 08:30 PM																				
08:30 PM	to 08:45 PM																				
08:45 PM	to 09:00 PM																				
SYSTEM PEAK HR (VEH.)		4				45	60				0	0				0	86				0
04:45 PM	to 05:45 PM	0	0	0	4		0	0	55	5		0	0	0	0		0	17	69	0	
Peak Hour Factor (PHF)	Overall	U	Left	Thru	Right	SB	U	Left	Thru	Right	WB	U	Left	Thru	Right	NB	U	Left	Thru	Right	EB
	0.82	n/a	n/a	n/a	0.50	0.50	n/a	n/a	0.81	0.63	0.79	n/a	n/a	n/a	n/a	n/a	n/a	0.71	0.86	n/a	0.83

VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



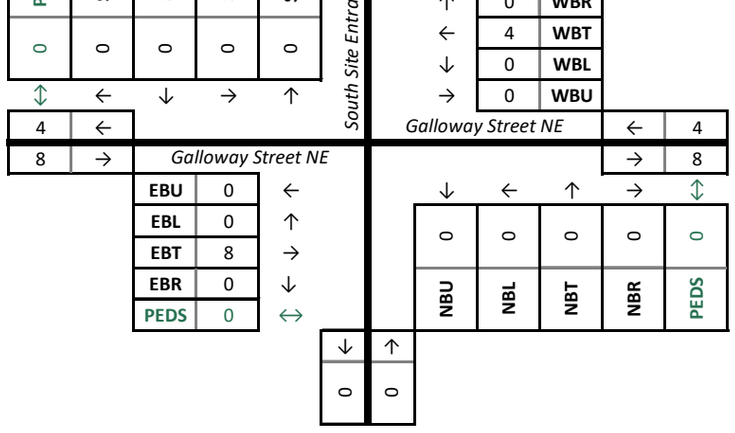
HEAVY VEHICLES (FHWA 4+)	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Site Entrance					Galloway Street NE										Galloway Street NE				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM	to 04:15 PM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	0	0	
04:15 PM	to 04:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:30 PM	to 04:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:45 PM	to 05:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:00 PM	to 05:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:15 PM	to 05:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:30 PM	to 05:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:45 PM	to 06:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:00 PM	to 06:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:15 PM	to 06:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:30 PM	to 06:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
06:45 PM	to 07:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:00 PM	to 07:15 PM																				
07:15 PM	to 07:30 PM																				
07:30 PM	to 07:45 PM																				
07:45 PM	to 08:00 PM																				
08:00 PM	to 08:15 PM																				
08:15 PM	to 08:30 PM																				
08:30 PM	to 08:45 PM																				
08:45 PM	to 09:00 PM																				
SYSTEM PEAK HR (VEH.)		0					0					0					0				
04:45 PM	to 05:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
INT. PEAK HR (HV ONLY)		0					1					0					0				
04:00 PM	to 05:00 PM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	0	0	
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



BICYCLES	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	South Site Entrance					Galloway Street NE										Galloway Street NE				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM	to 04:15 PM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	0	0	
04:15 PM	to 04:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:30 PM	to 04:45 PM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	0	0	
04:45 PM	to 05:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
05:00 PM	to 05:15 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	4	0	
05:15 PM	to 05:30 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	0	0	
05:30 PM	to 05:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	3	0	
05:45 PM	to 06:00 PM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	1	0	
06:00 PM	to 06:15 PM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	2	0	
06:15 PM	to 06:30 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	0	0	
06:30 PM	to 06:45 PM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	2	0	
06:45 PM	to 07:00 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	0	0	
07:00 PM	to 07:15 PM																				
07:15 PM	to 07:30 PM																				
07:30 PM	to 07:45 PM																				
07:45 PM	to 08:00 PM																				
08:00 PM	to 08:15 PM																				
08:15 PM	to 08:30 PM																				
08:30 PM	to 08:45 PM																				
08:45 PM	to 09:00 PM																				
SYSTEM PEAK HR (VEH.)		0					4					0					8				
04:45 PM	to 05:45 PM	0	0	0	0		0	0	4	0		0	0	0	0		0	0	8	0	
INT. PEAK HR (BIKES)		0					5					0					8				
05:00 PM	to 06:00 PM	0	0	0	0		0	0	5	0		0	0	0	0		0	0	8	0	

PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : UDC Bertie Backus CMP
Project # : 2919-001
Location District of Columbia
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, September 20, 2022
Weather: Partly Cloudy

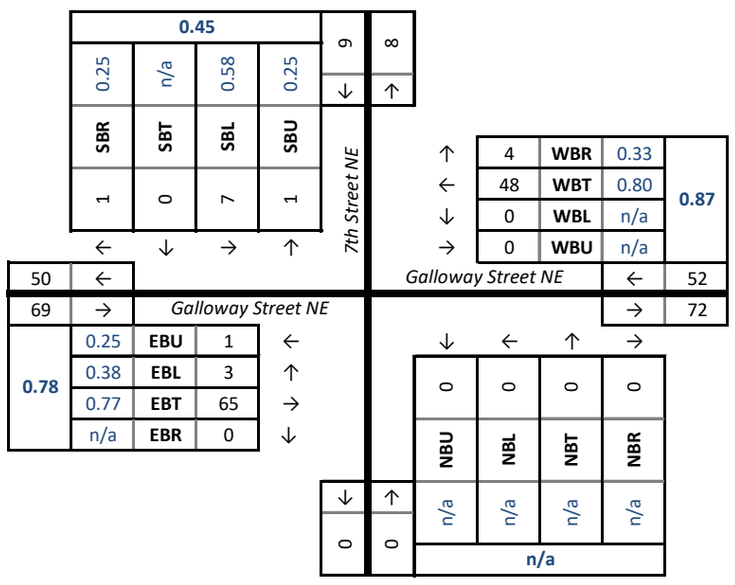
Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 04:15 PM to 05:15 PM
System Peak Hour (all vehicles): 04:45 PM to 05:45 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. 7th Street NE/ & Galloway Street NE

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	7th Street NE					Galloway Street NE										Galloway Street NE				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	0	0	0	10	0	0	16	1	0	0	0	0	0	0	0	1	13	0	0
04:15 PM to 04:30 PM	0	3	0	1	10	0	0	17	0	0	0	0	0	0	0	0	2	19	0	0
04:30 PM to 04:45 PM	0	1	0	2	4	0	0	12	0	0	0	0	0	0	0	0	0	16	0	0
04:45 PM to 05:00 PM	0	1	0	0	11	0	0	15	0	0	0	0	0	0	0	0	1	16	0	0
05:00 PM to 05:15 PM	0	1	0	0	8	0	0	13	1	0	0	0	0	0	0	1	0	21	0	0
05:15 PM to 05:30 PM	1	3	0	1	10	0	0	11	3	0	0	0	0	0	0	0	0	15	0	0
05:30 PM to 05:45 PM	0	2	0	0	5	0	0	9	0	0	0	0	0	0	0	0	2	13	0	0
05:45 PM to 06:00 PM	0	3	0	0	11	0	0	15	1	0	0	0	0	0	0	0	1	17	0	0
06:00 PM to 06:15 PM	0	0	0	1	12	0	0	7	2	0	0	0	0	0	0	0	1	14	0	0
06:15 PM to 06:30 PM	0	3	0	1	5	0	0	6	1	0	0	0	0	0	0	0	2	6	0	0
06:30 PM to 06:45 PM	0	2	0	1	7	0	0	12	2	1	0	0	0	0	0	0	1	7	0	0
06:45 PM to 07:00 PM	0	0	0	0	3	0	0	6	1	0	0	0	0	0	0	0	0	4	0	0
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
SYSTEM PEAK HR (VEH.)	9				34	52				0	0				0	69				0
04:45 PM to 05:45 PM	1	7	0	1		0	0	48	4		0	0	0	0		1	3	65	0	
Peak Hour Factor (PHF) Overall **0.88**	U 0.25	Left 0.58	Thru n/a	Right 0.25	**SB 0.45**	U n/a	Left n/a	Thru 0.80	Right 0.33	**WB 0.87**	U n/a	Left n/a	Thru n/a	Right n/a	**NB n/a**	U 0.25	Left 0.38	Thru 0.77	Right n/a	**EB 0.78**

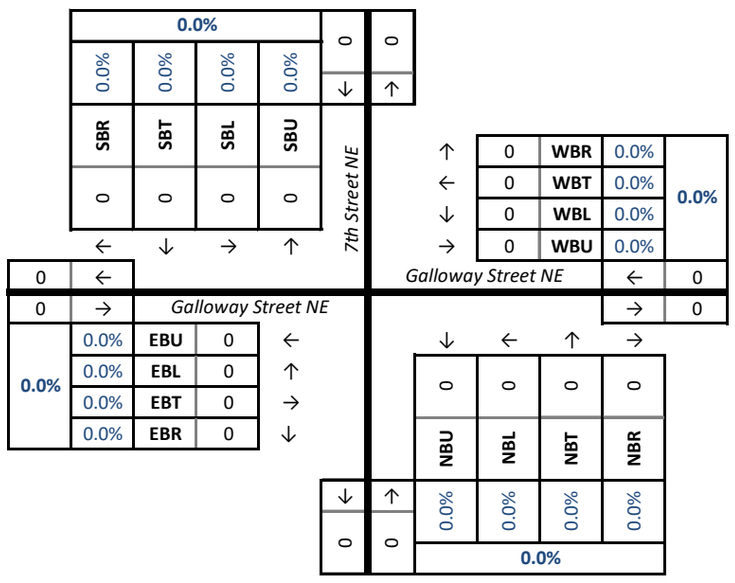
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	7th Street NE				Galloway Street NE								Galloway Street NE			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
SYSTEM PEAK HR (VEH.)	0				0				0				0			
04:45 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0% **0.0%**	0.0%	0.0%	0.0%	0.0% **0.0%**	0.0%	0.0%	0.0%	0.0% **0.0%**	0.0%	0.0%	0.0%	0.0% **0.0%**
INT. PEAK HR (HV ONLY)	0				1				0				0			
04:00 PM to 05:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0% **0.0%**	0.0%	0.0%	1.7%	0.0% **1.6%**	0.0%	0.0%	0.0%	0.0% **0.0%**	0.0%	0.0%	0.0%	0.0% **0.0%**

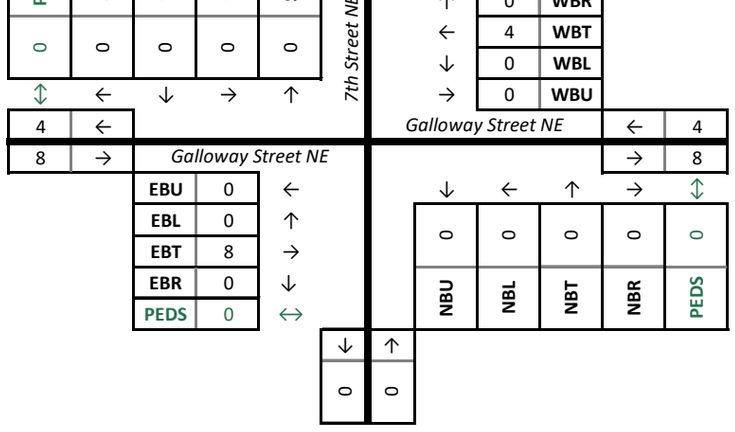
HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	7th Street NE				Galloway Street NE								Galloway Street NE			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	4	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
SYSTEM PEAK HR (VEH.)	0				4				0				8			
04:45 PM to 05:45 PM	0	0	0	0	0	0	4	0	0	0	0	0	0	0	8	0
INT. PEAK HR (BIKES)	0				4				0				8			
04:45 PM to 05:45 PM	0	0	0	0	0	0	4	0	0	0	0	0	0	0	8	0

PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

E. Level of Service (LOS) Definitions

All capacity analyses are based on the procedures specified by the Transportation Research Board, Special Report 209: Highway Capacity Manual (HCM), 2000. Levels of service (LOS) range from A to F. A brief description of each level of service for signalized and unsignalized intersections is provided below.

Signalized Intersections

Level of service is based upon the traffic volume present in each lane on the roadway, the capacity of each lane at the intersection and the delay associated with each directional movement. The levels of service for signalized intersections are defined below:

- **LOS A** describes operations with very low average delay per vehicle, i.e., less than 10.0 seconds. This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop. Short signal cycle lengths may also contribute to low delay.
- **LOS B** describes operations with average delay in the range of 10.1 to 20.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.
- **LOS C** describes operations with delay in the range of 20.1 to 35.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level although many still pass through the intersection without stopping. This is generally considered the lower end of the range of the acceptable level of service in rural areas.
- **LOS D** describes operations with delay in the range of 35.1 to 55.0 seconds per vehicle. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and/or high traffic volumes as compared to the roadway capacity. Many vehicles are required to stop and the number of vehicles that do not have to stop declines. Individual signal cycle failures, where all waiting vehicles do not clear the intersection during a single green time, are noticeable. This is generally considered the lower end of the range of the acceptable level of service in urban areas.
- **LOS E** describes operations with delay in the range of 55.1 to 80.0 seconds per vehicle. These higher delay values generally indicate poor progression, long cycle lengths, and high traffic volumes. Individual cycle failures are frequent occurrences. LOS E has been set as the limit of acceptable conditions.
- **LOS F** describes operations with average delay in excess of 80.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with over-saturation, i.e., when traffic arrives at a flow rate that exceeds the capacity of the intersection. It may also occur at high volumes with many individual cycle failures. Poor progression and long cycle lengths may also contribute to such delays.

Unsignalized Intersections

At an unsignalized intersection, the major street through traffic and right turns are assumed to operate unimpeded and therefore receive no level of service rating. The level of service for the minor street and the major street left turn traffic is dependent on the volume and capacity of the available lanes, and, the number and frequency of acceptable gaps in the major street traffic to make a conflicting turn.

The level of service grade is provided for each conflicting movement at an unsignalized intersection and is based on the total average delay experienced by each vehicle. The delay includes the time it takes a vehicle to move from the back of a queue through the intersection.

The unsignalized intersection level of service analysis does not account for variations in driver behavior or the effects of nearby traffic signals. Therefore, the results from this analysis usually indicate worse levels of service than may be experienced in the field. The unsignalized intersection level of service descriptions are provided below:

- **LOS A** describes operations where there is very little to no conflicting traffic for a minor side street movement, i.e., an average total delay of less than 10.0 seconds per vehicle.

- **LOS B** describes operations with average total delay in the range of 10.1 to 15.0 seconds per vehicle.
- **LOS C** describes operations with average total delay in the range of 15.1 to 25.0 second per vehicle.
- **LOS D** describes operations with average total delay in the range of 25.1 to 35.0 seconds per vehicle.
- **LOS E** describes operations with average total delay in the range of 35.1 to 50.0 seconds per vehicle.
- **LOS F** describes operations with average total delay of 50 seconds per vehicle. LOS F exists when there are insufficient gaps of suitable size to allow a side street demand to cross safely through or enter a major street traffic stream. This level of service is generally evident from extremely long total delays experienced by side street traffic and by queuing on the minor approaches. It is important to note that LOS F may not always result in long queues but may result in adjustments to normal driver behavior.

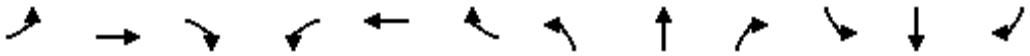
F. Existing (2023) Capacity Analysis Worksheets

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	113	200	862	791
v/c Ratio	0.42	1.15	0.56	0.43
Control Delay	39.4	152.3	12.9	8.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	39.4	152.3	12.9	8.5
Queue Length 50th (ft)	61	~150	100	108
Queue Length 95th (ft)	115	#294	164	145
Internal Link Dist (ft)	467	571	219	744
Turn Bay Length (ft)				
Base Capacity (vph)	271	174	1547	1830
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.42	1.15	0.56	0.43

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 (vph)	55	8	47	141	24	29	71	718	48	24	694	49
Future Volume (vph)	55	8	47	141	24	29	71	718	48	24	694	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	9	9	9	11	11	11	11	11	11
Grade (%)		-7%			-4%			2%			-2%	
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			0.99			0.99	
Flpb, ped/bikes		0.99			0.99			1.00			1.00	
Frt		0.94			0.98			0.99			0.99	
Flt Protected		0.98			0.97			1.00			1.00	
Satd. Flow (prot)		1697			1243			2855			2998	
Flt Permitted		0.81			0.70			0.80			0.91	
Satd. Flow (perm)		1405			903			2308			2731	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	57	8	48	145	25	30	73	740	49	25	715	51
RTOR Reduction (vph)	0	4	0	0	2	0	0	2	0	0	2	0
Lane Group Flow (vph)	0	109	0	0	198	0	0	860	0	0	789	0
Confl. Peds. (#/hr)	23		13	13		23	22		34	34		22
Heavy Vehicles (%)	2%	2%	4%	5%	2%	10%	2%	7%	6%	4%	4%	2%
Parking (#/hr)				0	0	0						
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		17.0			17.0			65.0			65.0	
Effective Green, g (s)		19.0			19.0			67.0			67.0	
Actuated g/C Ratio		0.19			0.19			0.67			0.67	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		266			171			1546			1829	
v/s Ratio Prot												
v/s Ratio Perm		0.08			c0.22			c0.37			0.29	
v/c Ratio		0.41			1.16			0.56			0.43	
Uniform Delay, d1		35.6			40.5			8.7			7.7	
Progression Factor		1.00			1.00			1.30			1.00	
Incremental Delay, d2		4.6			116.8			1.3			0.7	
Delay (s)		40.2			157.3			12.6			8.4	
Level of Service		D			F			B			A	
Approach Delay (s)		40.2			157.3			12.6			8.4	
Approach LOS		D			F			B			A	

Intersection Summary			
HCM 2000 Control Delay	27.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	29	17	820	13	8	874
Future Volume (Veh/h)	29	17	820	13	8	874
Sign Control	Stop		Free			Free
Grade	0%		2%			0%
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	30	18	845	13	8	901
Pedestrians	37					2
Lane Width (ft)	12.0					12.0
Walking Speed (ft/s)	4.0					4.0
Percent Blockage	3					0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			255			299
pX, platoon unblocked	0.95	0.91			0.91	
vC, conflicting volume	1355	468			895	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	847	221			689	
tC, single (s)	6.8	7.0			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	89	97			99	
cM capacity (veh/h)	274	680			795	

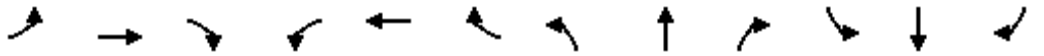
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	48	563	295	308	601
Volume Left	30	0	0	8	0
Volume Right	18	0	13	0	0
cSH	353	1700	1700	795	1700
Volume to Capacity	0.14	0.33	0.17	0.01	0.35
Queue Length 95th (ft)	12	0	0	1	0
Control Delay (s)	16.8	0.0	0.0	0.4	0.0
Lane LOS	C			A	
Approach Delay (s)	16.8	0.0		0.1	
Approach LOS	C				

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	43.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	76	19	851	930
v/c Ratio	0.30	0.07	0.45	0.43
Control Delay	27.6	26.8	3.7	4.7
Queue Delay	0.0	0.0	0.0	0.2
Total Delay	27.6	26.8	3.7	4.9
Queue Length 50th (ft)	30	8	45	104
Queue Length 95th (ft)	69	26	50	m119
Internal Link Dist (ft)	356	884	229	175
Turn Bay Length (ft)				
Base Capacity (vph)	383	400	1909	2154
Starvation Cap Reductn	0	0	75	0
Spillback Cap Reductn	1	0	0	414
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.20	0.05	0.46	0.53

Intersection Summary

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



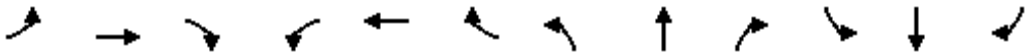
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	1	40	6	1	12	35	787	4	4	846	52
Future Volume (vph)	33	1	40	6	1	12	35	787	4	4	846	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		2%			2%			5%			0%	
Total Lost time (s)		2.0			2.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.97			0.98			1.00			1.00	
Flpb, ped/bikes		0.99			0.99			1.00			1.00	
Frt		0.93			0.91			1.00			0.99	
Flt Protected		0.98			0.98			1.00			1.00	
Satd. Flow (prot)		1244			1264			2854			2976	
Flt Permitted		0.89			0.94			0.88			0.95	
Satd. Flow (perm)		1134			1211			2514			2835	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	34	1	41	6	1	12	36	811	4	4	872	54
RTOR Reduction (vph)	0	11	0	0	1	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	65	0	0	18	0	0	851	0	0	928	0
Confl. Peds. (#/hr)	14		35	35		14	35		33	33		35
Heavy Vehicles (%)	2%	2%	5%	2%	2%	2%	6%	7%	2%	2%	4%	10%
Parking (#/hr)	0	0	0	0	0	0						
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		17.6			17.6			72.4			72.4	
Effective Green, g (s)		19.6			19.6			74.4			74.4	
Actuated g/C Ratio		0.20			0.20			0.74			0.74	
Clearance Time (s)		4.0			4.0			6.0			6.0	
Vehicle Extension (s)		1.0			1.0			1.0			1.0	
Lane Grp Cap (vph)		222			237			1870			2109	
v/s Ratio Prot												
v/s Ratio Perm		c0.06			0.02			c0.34			0.33	
v/c Ratio		0.29			0.08			0.46			0.44	
Uniform Delay, d1		34.3			32.8			5.0			4.9	
Progression Factor		1.00			1.00			0.47			0.64	
Incremental Delay, d2		0.3			0.1			0.6			0.6	
Delay (s)		34.5			32.9			2.9			3.7	
Level of Service		C			C			A			A	
Approach Delay (s)		34.5			32.9			2.9			3.7	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	4.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	77.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	42	27	865	927
v/c Ratio	0.21	0.13	0.70	0.76
Control Delay	38.5	35.2	14.3	20.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	38.5	35.2	14.3	20.8
Queue Length 50th (ft)	22	14	167	275
Queue Length 95th (ft)	54	38	m222	355
Internal Link Dist (ft)	251	135	463	229
Turn Bay Length (ft)				
Base Capacity (vph)	240	265	1230	1218
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.17	0.10	0.70	0.76

Intersection Summary

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



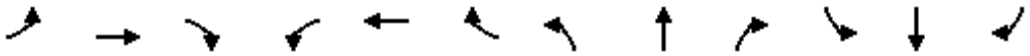
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	1	22	12	1	12	13	792	25	16	855	18
Future Volume (vph)	17	1	22	12	1	12	13	792	25	16	855	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	10	12	10	10	10	10	12
Grade (%)		0%			-5%			1%			-2%	
Total Lost time (s)		4.0			4.0			3.0			3.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.98			0.99			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.93			0.94			1.00			1.00	
Flt Protected		0.98			0.98			1.00			1.00	
Satd. Flow (prot)		1491			1551			2803			2777	
Flt Permitted		0.98			0.98			0.93			0.93	
Satd. Flow (perm)		1491			1551			2621			2589	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	18	1	23	12	1	12	14	825	26	17	891	19
RTOR Reduction (vph)	0	2	0	0	2	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	40	0	0	25	0	0	865	0	0	926	0
Confl. Peds. (#/hr)	6		11	11		6	33		18	18		33
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	7%	2%	6%	4%	2%
Parking (#/hr)				0		0					0	
Turn Type	Split	NA		Split	NA		Perm	NA		Perm	NA	
Protected Phases	3	3		4	4			6			2	
Permitted Phases							6			2		
Actuated Green, G (s)		9.8			10.4			42.6			42.6	
Effective Green, g (s)		11.8			12.4			44.6			44.6	
Actuated g/C Ratio		0.12			0.12			0.45			0.45	
Clearance Time (s)		6.0			6.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			1.0			1.0	
Lane Grp Cap (vph)		175			192			1168			1154	
v/s Ratio Prot		c0.03			c0.02							
v/s Ratio Perm								0.33			c0.36	
v/c Ratio		0.23			0.13			0.74			0.80	
Uniform Delay, d1		40.0			39.0			22.9			23.9	
Progression Factor		1.00			1.00			0.60			0.74	
Incremental Delay, d2		0.7			0.3			1.7			5.5	
Delay (s)		40.7			39.3			15.5			23.3	
Level of Service		D			D			B			C	
Approach Delay (s)		40.7			39.3			15.5			23.3	
Approach LOS		D			D			B			C	

Intersection Summary			
HCM 2000 Control Delay	20.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	220	162	1085	979
v/c Ratio	0.80	0.85	0.91	0.68
Control Delay	57.7	74.8	27.7	18.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	57.7	74.8	27.7	18.1
Queue Length 50th (ft)	126	99	124	135
Queue Length 95th (ft)	#248	#218	#222	214
Internal Link Dist (ft)	524	236	236	463
Turn Bay Length (ft)				
Base Capacity (vph)	276	191	1186	1446
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.80	0.85	0.91	0.68

Intersection Summary

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

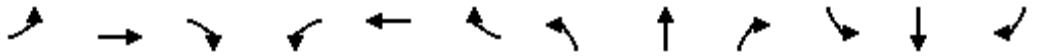


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	25	140	52	80	19	197	788	24	14	852	45
Future Volume (vph)	39	25	140	52	80	19	197	788	24	14	852	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	10	10	10	10	10	10	10	10	10
Grade (%)		-4%			-1%			2%			-1%	
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			1.00			1.00	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.91			0.98			1.00			0.99	
Flt Protected		0.99			0.98			0.99			1.00	
Satd. Flow (prot)		1468			1356			2795			2923	
Flt Permitted		0.89			0.69			0.55			0.93	
Satd. Flow (perm)		1320			946			1540			2719	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	42	27	151	56	86	20	212	847	26	15	916	48
RTOR Reduction (vph)	0	12	0	0	2	0	0	2	0	0	4	0
Lane Group Flow (vph)	0	208	0	0	160	0	0	1083	0	0	975	0
Confl. Peds. (#/hr)	32		2	2		32	26		19	19		26
Heavy Vehicles (%)	10%	2%	10%	2%	2%	2%	9%	5%	2%	2%	3%	2%
Bus Blockages (#/hr)	14	14	14	0	0	0	0	0	0	0	0	0
Parking (#/hr)				0	0	0						
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		8			4		5	2			6	
Permitted Phases	8			4			2			6		
Actuated Green, G (s)		18.0			18.0			66.0			51.0	
Effective Green, g (s)		20.0			20.0			68.0			53.0	
Actuated g/C Ratio		0.20			0.20			0.68			0.53	
Clearance Time (s)		7.0			7.0			6.0			6.0	
Lane Grp Cap (vph)		264			189			1197			1441	
v/s Ratio Prot								c0.11				
v/s Ratio Perm		0.16			c0.17			c0.51			0.36	
v/c Ratio		0.79			0.84			0.91			0.68	
Uniform Delay, d1		38.0			38.5			13.3			17.2	
Progression Factor		1.00			1.00			1.52			0.93	
Incremental Delay, d2		20.8			34.6			9.6			1.8	
Delay (s)		58.8			73.1			29.8			17.9	
Level of Service		E			E			C			B	
Approach Delay (s)		58.8			73.1			29.8			17.9	
Approach LOS		E			E			C			B	

Intersection Summary			
HCM 2000 Control Delay	30.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	59	178	896	1089
v/c Ratio	0.21	0.51	0.63	0.68
Control Delay	33.4	37.2	19.5	14.6
Queue Delay	0.0	0.0	0.0	0.3
Total Delay	33.4	37.2	19.5	14.9
Queue Length 50th (ft)	30	91	204	188
Queue Length 95th (ft)	66	161	269	192
Internal Link Dist (ft)	495	513	594	236
Turn Bay Length (ft)				
Base Capacity (vph)	284	349	1433	1597
Starvation Cap Reductn	0	0	0	130
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.21	0.51	0.63	0.74

Intersection Summary



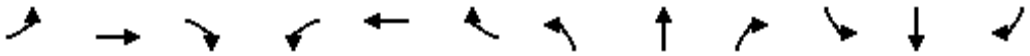
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	12	17	21	13	136	11	847	3	78	952	15
Future Volume (vph)	27	12	17	21	13	136	11	847	3	78	952	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	11	11	11	11	11	11
Grade (%)		-4%			-1%			1%			-2%	
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.96			0.89			1.00			1.00	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1518			1586			2942			2970	
Flt Permitted		0.83			0.96			0.94			0.76	
Satd. Flow (perm)		1285			1535			2759			2268	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	28	12	18	22	14	142	11	882	3	81	992	16
RTOR Reduction (vph)	0	2	0	0	12	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	57	0	0	166	0	0	896	0	0	1088	0
Confl. Peds. (#/hr)	4		8	8		4	43		28	28		43
Heavy Vehicles (%)	10%	10%	6%	2%	10%	4%	9%	6%	2%	9%	4%	7%
Bus Blockages (#/hr)	0	0	0	7	7	7	0	0	0	0	7	0
Parking (#/hr)	0	0	0									
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			4			6		5	2	
Permitted Phases	4			4			6			2		
Actuated Green, G (s)		20.0			20.0			50.0			65.0	
Effective Green, g (s)		22.0			22.0			52.0			67.0	
Actuated g/C Ratio		0.22			0.22			0.52			0.67	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		282			337			1434			1603	
v/s Ratio Prot											c0.08	
v/s Ratio Perm		0.04			c0.11			0.32			c0.37	
v/c Ratio		0.20			0.49			0.62			0.68	
Uniform Delay, d1		31.8			34.1			17.1			10.0	
Progression Factor		1.00			1.00			1.00			1.39	
Incremental Delay, d2		1.6			5.1			2.1			1.6	
Delay (s)		33.5			39.2			19.1			15.5	
Level of Service		C			D			B			B	
Approach Delay (s)		33.5			39.2			19.1			15.5	
Approach LOS		C			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	19.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	85.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	20	12	6	19	3	1
Future Volume (Veh/h)	20	12	6	19	3	1
Sign Control	Free			Free	Stop	
Grade	0%			-5%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	24	14	7	22	4	1
Pedestrians					7	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	215					
pX, platoon unblocked						
vC, conflicting volume			45		74	38
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			45		74	38
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1554		920	1028

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	38	29	5
Volume Left	0	7	4
Volume Right	14	0	1
cSH	1700	1554	940
Volume to Capacity	0.02	0.00	0.01
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	1.8	8.9
Lane LOS		A	A
Approach Delay (s)	0.0	1.8	8.9
Approach LOS			A

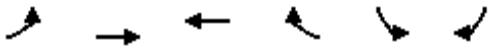
Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	16.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	2	8	8	3	17	4	1	3	2	6	9	6
Future Volume (vph)	2	8	8	3	17	4	1	3	2	6	9	6
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	2	9	9	4	20	5	1	4	2	7	11	7

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	20	29	7	25
Volume Left (vph)	2	4	1	7
Volume Right (vph)	9	5	2	7
Hadj (s)	-0.22	-0.04	-0.11	-0.08
Departure Headway (s)	3.8	3.9	3.9	3.9
Degree Utilization, x	0.02	0.03	0.01	0.03
Capacity (veh/h)	937	900	894	900
Control Delay (s)	6.9	7.1	6.9	7.0
Approach Delay (s)	6.9	7.1	6.9	7.0
Approach LOS	A	A	A	A

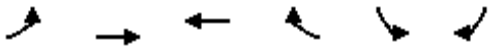
Intersection Summary				
Delay	7.0			
Level of Service	A			
Intersection Capacity Utilization	15.5%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	9	55	150	10	1	2
Future Volume (Veh/h)	9	55	150	10	1	2
Sign Control		Free	Free		Stop	
Grade		0%	-1%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	11	65	176	12	1	2
Pedestrians					36	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					3	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		316				
pX, platoon unblocked						
vC, conflicting volume	224				305	218
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	224				305	218
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				100	100
cM capacity (veh/h)	1304				661	797

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	76	188	3
Volume Left	11	0	1
Volume Right	0	12	2
cSH	1304	1700	746
Volume to Capacity	0.01	0.11	0.00
Queue Length 95th (ft)	1	0	0
Control Delay (s)	1.2	0.0	9.8
Lane LOS	A		A
Approach Delay (s)	1.2	0.0	9.8
Approach LOS			A

Intersection Summary			
Average Delay		0.4	
Intersection Capacity Utilization		22.2%	ICU Level of Service A
Analysis Period (min)		15	



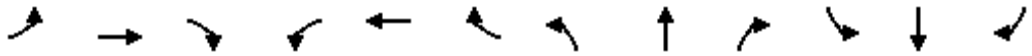
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	40	138	4	1	20
Future Volume (Veh/h)	5	40	138	4	1	20
Sign Control		Free	Free		Stop	
Grade		0%	-1%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	6	47	162	5	1	24
Pedestrians					29	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					2	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		671				
pX, platoon unblocked						
vC, conflicting volume	196				252	194
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	196				252	194
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	97
cM capacity (veh/h)	1344				715	827

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	53	167	25
Volume Left	6	0	1
Volume Right	0	5	24
cSH	1344	1700	822
Volume to Capacity	0.00	0.10	0.03
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.9	0.0	9.5
Lane LOS	A		A
Approach Delay (s)	0.9	0.0	9.5
Approach LOS			A

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	21.5%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	58	84	890	840
v/c Ratio	0.20	0.42	0.49	0.46
Control Delay	34.7	42.3	3.2	8.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	34.7	42.3	3.2	8.8
Queue Length 50th (ft)	30	46	13	119
Queue Length 95th (ft)	66	95	17	158
Internal Link Dist (ft)	467	571	219	744
Turn Bay Length (ft)				
Base Capacity (vph)	297	199	1830	1830
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.20	0.42	0.49	0.46

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	11	26	53	10	20	25	781	66	30	763	29
Future Volume (vph)	20	11	26	53	10	20	25	781	66	30	763	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	9	9	9	11	11	11	11	11	11
Grade (%)		-7%			-4%			2%			-2%	
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.98			0.99			0.99			1.00	
Flpb, ped/bikes		0.99			0.99			1.00			1.00	
Frt		0.94			0.97			0.99			0.99	
Flt Protected		0.98			0.97			1.00			1.00	
Satd. Flow (prot)		1709			1264			2983			3047	
Flt Permitted		0.89			0.80			0.91			0.89	
Satd. Flow (perm)		1554			1041			2727			2730	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	20	11	27	54	10	20	26	797	67	31	779	30
RTOR Reduction (vph)	0	2	0	0	2	0	0	2	0	0	1	0
Lane Group Flow (vph)	0	56	0	0	82	0	0	888	0	0	839	0
Confl. Peds. (#/hr)	24		14	14		24	23		27	27		23
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Parking (#/hr)				0	0	0						
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		17.0			17.0			65.0			65.0	
Effective Green, g (s)		19.0			19.0			67.0			67.0	
Actuated g/C Ratio		0.19			0.19			0.67			0.67	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		295			197			1827			1829	
v/s Ratio Prot												
v/s Ratio Perm		0.04			c0.08			c0.33			0.31	
v/c Ratio		0.19			0.42			0.49			0.46	
Uniform Delay, d1		34.0			35.6			8.1			7.9	
Progression Factor		1.00			1.00			0.29			1.00	
Incremental Delay, d2		1.4			6.4			0.9			0.8	
Delay (s)		35.4			42.0			3.2			8.7	
Level of Service		D			D			A			A	
Approach Delay (s)		35.4			42.0			3.2			8.7	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

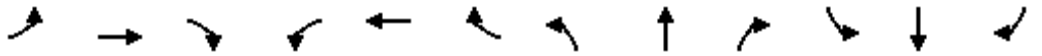
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	14	12	862	29	10	831
Future Volume (Veh/h)	14	12	862	29	10	831
Sign Control	Stop		Free			Free
Grade	0%		2%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	15	13	907	31	11	875
Pedestrians	41		3			9
Lane Width (ft)	12.0		12.0			12.0
Walking Speed (ft/s)	4.0		4.0			4.0
Percent Blockage	3		0			1
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			255			299
pX, platoon unblocked	0.94	0.90			0.90	
vC, conflicting volume	1426	519			979	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	861	249			759	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	94	98			99	
cM capacity (veh/h)	263	649			739	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	28	605	333	303	583
Volume Left	15	0	0	11	0
Volume Right	13	0	31	0	0
cSH	364	1700	1700	739	1700
Volume to Capacity	0.08	0.36	0.20	0.01	0.34
Queue Length 95th (ft)	6	0	0	1	0
Control Delay (s)	15.7	0.0	0.0	0.5	0.0
Lane LOS	C			A	
Approach Delay (s)	15.7	0.0		0.2	
Approach LOS	C				

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	45.9%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	85	11	907	880
v/c Ratio	0.33	0.04	0.43	0.40
Control Delay	27.8	25.3	8.7	5.5
Queue Delay	0.0	0.0	0.3	0.0
Total Delay	27.8	25.3	9.0	5.6
Queue Length 50th (ft)	34	5	91	97
Queue Length 95th (ft)	75	18	164	117
Internal Link Dist (ft)	356	884	229	175
Turn Bay Length (ft)				
Base Capacity (vph)	391	407	2100	2209
Starvation Cap Reductn	0	0	531	0
Spillback Cap Reductn	0	0	0	208
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.22	0.03	0.58	0.44

Intersection Summary



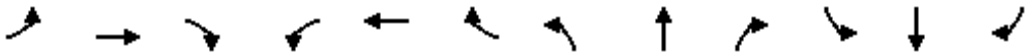
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	1	44	3	1	7	21	848	2	3	801	41
Future Volume (vph)	36	1	44	3	1	7	21	848	2	3	801	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		2%			2%			5%			0%	
Total Lost time (s)		2.0			2.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.98			0.98			1.00			1.00	
Flpb, ped/bikes		0.99			0.99			1.00			1.00	
Frt		0.93			0.91			1.00			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1268			1270			2997			3048	
Flt Permitted		0.89			0.96			0.92			0.95	
Satd. Flow (perm)		1155			1233			2762			2905	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	38	1	46	3	1	7	22	883	2	3	834	43
RTOR Reduction (vph)	0	13	0	0	1	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	72	0	0	10	0	0	907	0	0	878	0
Confl. Peds. (#/hr)	13		30	30		13	55		26	26		55
Parking (#/hr)	0	0	0	0	0	0						
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		17.6			17.6			72.4			72.4	
Effective Green, g (s)		19.6			19.6			74.4			74.4	
Actuated g/C Ratio		0.20			0.20			0.74			0.74	
Clearance Time (s)		4.0			4.0			6.0			6.0	
Vehicle Extension (s)		1.0			1.0			1.0			1.0	
Lane Grp Cap (vph)		226			241			2054			2161	
v/s Ratio Prot												
v/s Ratio Perm		c0.06			0.01			c0.33			0.30	
v/c Ratio		0.32			0.04			0.44			0.41	
Uniform Delay, d1		34.5			32.6			4.9			4.7	
Progression Factor		1.00			1.00			1.25			0.80	
Incremental Delay, d2		0.3			0.0			0.5			0.5	
Delay (s)		34.8			32.6			6.6			4.3	
Level of Service		C			C			A			A	
Approach Delay (s)		34.8			32.6			6.6			4.3	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	6.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	29	30	934	895
v/c Ratio	0.15	0.14	0.75	0.74
Control Delay	36.7	34.8	34.2	19.7
Queue Delay	0.0	0.0	0.0	1.0
Total Delay	36.7	34.8	34.2	20.6
Queue Length 50th (ft)	15	15	330	214
Queue Length 95th (ft)	41	41	397	352
Internal Link Dist (ft)	251	135	463	229
Turn Bay Length (ft)				
Base Capacity (vph)	234	259	1249	1207
Starvation Cap Reductn	0	0	0	118
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.12	0.12	0.75	0.82

Intersection Summary



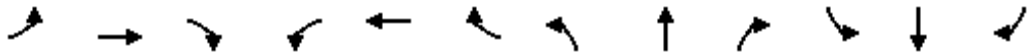
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	1	15	7	2	20	28	840	20	19	794	37
Future Volume (vph)	11	1	15	7	2	20	28	840	20	19	794	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	10	12	10	10	10	10	12
Grade (%)		0%			-5%			1%			-2%	
Total Lost time (s)		4.0			4.0			3.0			3.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.96			0.98			1.00			0.98	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.93			0.91			1.00			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1457			1510			2935			2779	
Flt Permitted		0.98			0.99			0.90			0.92	
Satd. Flow (perm)		1457			1510			2657			2564	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	12	1	16	7	2	21	29	884	21	20	836	39
RTOR Reduction (vph)	0	2	0	0	3	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	27	0	0	27	0	0	934	0	0	893	0
Confl. Peds. (#/hr)	7		30	30		7	90		25	25		90
Parking (#/hr)				0		0					0	
Turn Type	Split	NA		Split	NA		Perm	NA		Perm	NA	
Protected Phases	3	3		4	4			6			2	
Permitted Phases							6			2		
Actuated Green, G (s)		9.8			10.4			42.6			42.6	
Effective Green, g (s)		11.8			12.4			44.6			44.6	
Actuated g/C Ratio		0.12			0.12			0.45			0.45	
Clearance Time (s)		6.0			6.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			1.0			1.0	
Lane Grp Cap (vph)		171			187			1185			1143	
v/s Ratio Prot		c0.02			c0.02							
v/s Ratio Perm								c0.35			0.35	
v/c Ratio		0.16			0.15			0.79			0.78	
Uniform Delay, d1		39.6			39.1			23.7			23.5	
Progression Factor		1.00			1.00			1.41			0.72	
Incremental Delay, d2		0.4			0.4			3.8			5.0	
Delay (s)		40.1			39.4			37.2			22.0	
Level of Service		D			D			D			C	
Approach Delay (s)		40.1			39.4			37.2			22.0	
Approach LOS		D			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	30.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

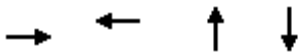
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	193	60	1012	785
v/c Ratio	0.65	0.23	0.72	0.54
Control Delay	45.5	33.9	12.5	28.6
Queue Delay	0.0	0.0	0.1	0.0
Total Delay	45.5	33.9	12.5	28.6
Queue Length 50th (ft)	107	30	71	283
Queue Length 95th (ft)	184	66	121	346
Internal Link Dist (ft)	524	236	236	463
Turn Bay Length (ft)				
Base Capacity (vph)	297	257	1410	1458
Starvation Cap Reductn	0	0	22	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.65	0.23	0.73	0.54

Intersection Summary



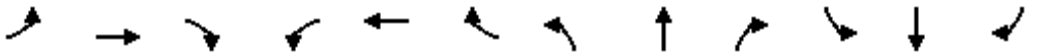
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	44	105	16	30	13	122	847	24	17	721	31
Future Volume (vph)	40	44	105	16	30	13	122	847	24	17	721	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	10	10	10	10	10	10	10	10	10
Grade (%)		-4%			-1%			2%			-1%	
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.98			0.98			1.00			0.99	
Flpb, ped/bikes		0.98			1.00			1.00			1.00	
Frt		0.93			0.97			1.00			0.99	
Flt Protected		0.99			0.99			0.99			1.00	
Satd. Flow (prot)		1481			1323			2876			2923	
Flt Permitted		0.92			0.90			0.69			0.92	
Satd. Flow (perm)		1377			1212			1984			2696	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	41	45	107	16	31	13	124	864	24	17	736	32
RTOR Reduction (vph)	0	9	0	0	3	0	0	1	0	0	4	0
Lane Group Flow (vph)	0	184	0	0	57	0	0	1011	0	0	781	0
Confl. Peds. (#/hr)	51		13	13		51	40		22	22		40
Heavy Vehicles (%)	10%	2%	10%	2%	2%	2%	10%	2%	2%	2%	3%	2%
Bus Blockages (#/hr)	14	14	14	0	0	0	0	0	0	0	0	0
Parking (#/hr)				0	0	0						
Turn Type	Perm	NA		Perm	NA		custom	NA		Perm	NA	
Protected Phases		8			4		5	2			6	
Permitted Phases	8			4			5			6		
Actuated Green, G (s)		19.0			19.0			65.0			52.0	
Effective Green, g (s)		21.0			21.0			67.0			54.0	
Actuated g/C Ratio		0.21			0.21			0.67			0.54	
Clearance Time (s)		7.0			7.0			6.0			6.0	
Lane Grp Cap (vph)		289			254			1418			1455	
v/s Ratio Prot								c0.07				
v/s Ratio Perm		c0.13			0.05			c0.41			0.29	
v/c Ratio		0.64			0.22			0.71			0.54	
Uniform Delay, d1		36.0			32.7			10.4			14.9	
Progression Factor		1.00			1.00			1.03			1.84	
Incremental Delay, d2		10.3			2.0			2.5			1.0	
Delay (s)		46.3			34.8			13.3			28.4	
Level of Service		D			C			B			C	
Approach Delay (s)		46.3			34.8			13.3			28.4	
Approach LOS		D			C			B			C	

Intersection Summary			
HCM 2000 Control Delay	22.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	81.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	40	106	932	869
v/c Ratio	0.13	0.31	0.62	0.64
Control Delay	32.2	32.0	19.3	9.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	32.2	32.0	19.3	9.3
Queue Length 50th (ft)	20	51	211	73
Queue Length 95th (ft)	49	100	277	74
Internal Link Dist (ft)	495	513	594	236
Turn Bay Length (ft)				
Base Capacity (vph)	302	345	1495	1362
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.13	0.31	0.62	0.64

Intersection Summary



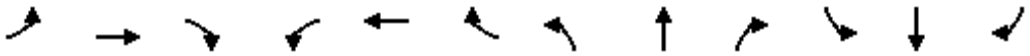
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	8	12	11	6	86	5	889	11	121	709	13
Future Volume (vph)	19	8	12	11	6	86	5	889	11	121	709	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	11	11	11	11	11	11
Grade (%)		-4%			-1%			1%			-2%	
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.96			0.89			1.00			1.00	
Flt Protected		0.98			0.99			1.00			0.99	
Satd. Flow (prot)		1566			1561			3023			2952	
Flt Permitted		0.86			0.98			0.95			0.62	
Satd. Flow (perm)		1373			1530			2875			1853	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	20	8	12	11	6	89	5	916	11	125	731	13
RTOR Reduction (vph)	0	1	0	0	9	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	39	0	0	97	0	0	932	0	0	869	0
Confl. Peds. (#/hr)	3		11	11		3	33		28	28		33
Heavy Vehicles (%)	5%	2%	8%	2%	2%	6%	10%	3%	2%	3%	5%	2%
Bus Blockages (#/hr)	0	0	0	7	7	7	0	0	0	0	7	0
Parking (#/hr)	0	0	0									
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			4			6		5	2	
Permitted Phases	4			4			6			2		
Actuated Green, G (s)		20.0			20.0			50.0			65.0	
Effective Green, g (s)		22.0			22.0			52.0			67.0	
Actuated g/C Ratio		0.22			0.22			0.52			0.67	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		302			336			1495			1373	
v/s Ratio Prot											c0.08	
v/s Ratio Perm		0.03			c0.06			0.32			c0.35	
v/c Ratio		0.13			0.29			0.62			0.63	
Uniform Delay, d1		31.3			32.5			17.0			9.5	
Progression Factor		1.00			1.00			1.00			0.90	
Incremental Delay, d2		0.9			2.2			2.0			1.9	
Delay (s)		32.2			34.7			19.0			10.4	
Level of Service		C			C			B			B	
Approach Delay (s)		32.2			34.7			19.0			10.4	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	16.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	80.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	33	2	1	20	5	1
Future Volume (Veh/h)	33	2	1	20	5	1
Sign Control	Free			Free	Stop	
Grade	0%			-5%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	39	2	1	24	6	1
Pedestrians				1	15	
Lane Width (ft)				12.0	12.0	
Walking Speed (ft/s)				4.0	4.0	
Percent Blockage				0	1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	215					
pX, platoon unblocked						
vC, conflicting volume			56		81	56
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			56		81	56
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1529		909	997

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	41	25	7
Volume Left	0	1	6
Volume Right	2	0	1
cSH	1700	1529	921
Volume to Capacity	0.02	0.00	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.3	8.9
Lane LOS		A	A
Approach Delay (s)	0.0	0.3	8.9
Approach LOS			A

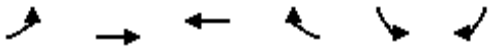
Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	17.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	3	13	9	1	10	4	2	6	3	4	3	2
Future Volume (vph)	3	13	9	1	10	4	2	6	3	4	3	2
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	4	15	11	1	12	5	2	7	4	5	4	2

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	30	18	13	11
Volume Left (vph)	4	1	2	5
Volume Right (vph)	11	5	4	2
Hadj (s)	-0.16	-0.12	-0.12	0.02
Departure Headway (s)	3.8	3.9	3.9	4.0
Degree Utilization, x	0.03	0.02	0.01	0.01
Capacity (veh/h)	932	921	901	878
Control Delay (s)	6.9	6.9	6.9	7.1
Approach Delay (s)	6.9	6.9	6.9	7.1
Approach LOS	A	A	A	A

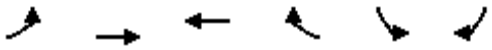
Intersection Summary				
Delay	7.0			
Level of Service	A			
Intersection Capacity Utilization	16.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	17	69	55	5	1	4
Future Volume (Veh/h)	17	69	55	5	1	4
Sign Control		Free	Free		Stop	
Grade		0%	-1%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	20	81	65	6	1	5
Pedestrians					45	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					4	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		316				
pX, platoon unblocked						
vC, conflicting volume	116				234	113
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	116				234	113
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				100	99
cM capacity (veh/h)	1417				716	905

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	101	71	6
Volume Left	20	0	1
Volume Right	0	6	5
cSH	1417	1700	866
Volume to Capacity	0.01	0.04	0.01
Queue Length 95th (ft)	1	0	1
Control Delay (s)	1.6	0.0	9.2
Lane LOS	A		A
Approach Delay (s)	1.6	0.0	9.2
Approach LOS			A

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	21.7%	ICU Level of Service	A
Analysis Period (min)	15		

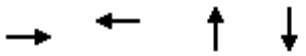


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	65	48	4	8	1
Future Volume (Veh/h)	4	65	48	4	8	1
Sign Control		Free	Free		Stop	
Grade		0%	-1%		0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	5	74	55	5	9	1
Pedestrians					34	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					3	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		671				
pX, platoon unblocked						
vC, conflicting volume	94				176	92
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	94				176	92
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1458				789	939

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	79	60	10
Volume Left	5	0	9
Volume Right	0	5	1
cSH	1458	1700	801
Volume to Capacity	0.00	0.04	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.5	0.0	9.5
Lane LOS	A		A
Approach Delay (s)	0.5	0.0	9.5
Approach LOS			A

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	20.1%	ICU Level of Service	A
Analysis Period (min)	15		

G. Future (2033) Conditions without Development Capacity Analysis Worksheets

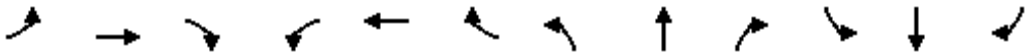


Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	114	201	934	908
v/c Ratio	0.43	1.18	0.61	0.50
Control Delay	41.5	161.9	13.2	9.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	41.5	161.9	13.2	9.3
Queue Length 50th (ft)	65	~154	154	134
Queue Length 95th (ft)	119	#295	150	177
Internal Link Dist (ft)	467	571	219	744
Turn Bay Length (ft)				
Base Capacity (vph)	266	171	1519	1829
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.43	1.18	0.61	0.50

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 (vph)	56	8	47	142	24	29	72	787	48	25	804	51
Future Volume (vph)	56	8	47	142	24	29	72	787	48	25	804	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	9	9	9	11	11	11	11	11	11
Grade (%)		-7%			-4%			2%			-2%	
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			0.99			0.99	
Flpb, ped/bikes		0.99			0.99			1.00			1.00	
Frt		0.94			0.98			0.99			0.99	
Flt Protected		0.98			0.96			1.00			1.00	
Satd. Flow (prot)		1697			1243			2860			3003	
Flt Permitted		0.81			0.70			0.79			0.91	
Satd. Flow (perm)		1403			902			2269			2730	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	58	8	48	146	25	30	74	811	49	26	829	53
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	114	0	0	201	0	0	934	0	0	908	0
Confl. Peds. (#/hr)	23		13	13		23	22		34	34		22
Heavy Vehicles (%)	2%	2%	4%	5%	2%	10%	2%	7%	6%	4%	4%	2%
Parking (#/hr)				0	0	0						
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		17.0			17.0			65.0			65.0	
Effective Green, g (s)		19.0			19.0			67.0			67.0	
Actuated g/C Ratio		0.19			0.19			0.67			0.67	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		266			171			1520			1829	
v/s Ratio Prot												
v/s Ratio Perm		0.08			c0.22			c0.41			0.33	
v/c Ratio		0.43			1.18			0.61			0.50	
Uniform Delay, d1		35.7			40.5			9.3			8.2	
Progression Factor		1.00			1.00			1.22			1.00	
Incremental Delay, d2		5.0			123.9			1.5			1.0	
Delay (s)		40.7			164.4			12.8			9.1	
Level of Service		D			F			B			A	
Approach Delay (s)		40.7			164.4			12.8			9.1	
Approach LOS		D			F			B			A	

Intersection Summary			
HCM 2000 Control Delay	26.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	29	17	890	13	8	993
Future Volume (Veh/h)	29	17	890	13	8	993
Sign Control	Stop		Free			Free
Grade	0%		2%			0%
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	30	18	918	13	8	1024
Pedestrians	37					2
Lane Width (ft)	12.0					12.0
Walking Speed (ft/s)	4.0					4.0
Percent Blockage	3					0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			255			299
pX, platoon unblocked	0.93	0.87			0.87	
vC, conflicting volume	1490	504			968	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	795	140			671	
tC, single (s)	6.8	7.0			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	90	98			99	
cM capacity (veh/h)	291	734			774	

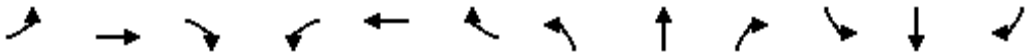
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	48	612	319	349	683
Volume Left	30	0	0	8	0
Volume Right	18	0	13	0	0
cSH	376	1700	1700	774	1700
Volume to Capacity	0.13	0.36	0.19	0.01	0.40
Queue Length 95th (ft)	11	0	0	1	0
Control Delay (s)	16.0	0.0	0.0	0.3	0.0
Lane LOS	C			A	
Approach Delay (s)	16.0	0.0		0.1	
Approach LOS	C				

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	47.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	199	19	975	1048
v/c Ratio	0.72	0.07	0.62	0.53
Control Delay	46.1	25.3	8.8	6.2
Queue Delay	0.0	0.0	0.0	0.7
Total Delay	46.2	25.3	8.8	6.9
Queue Length 50th (ft)	102	8	50	111
Queue Length 95th (ft)	171	25	116	m126
Internal Link Dist (ft)	356	884	229	175
Turn Bay Length (ft)				
Base Capacity (vph)	381	395	1566	1994
Starvation Cap Reductn	0	0	0	67
Spillback Cap Reductn	2	0	0	564
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.53	0.05	0.62	0.73

Intersection Summary

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



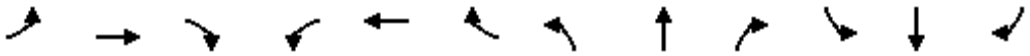
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	1	141	6	1	12	69	873	4	4	952	61
Future Volume (vph)	51	1	141	6	1	12	69	873	4	4	952	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		2%			2%			5%			0%	
Total Lost time (s)		2.0			2.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.96			0.98			1.00			1.00	
Flpb, ped/bikes		1.00			0.99			1.00			1.00	
Frt		0.90			0.91			1.00			0.99	
Flt Protected		0.99			0.98			1.00			1.00	
Satd. Flow (prot)		1206			1268			2851			2974	
Flt Permitted		0.92			0.93			0.78			0.95	
Satd. Flow (perm)		1129			1197			2227			2832	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	53	1	145	6	1	12	71	900	4	4	981	63
RTOR Reduction (vph)	0	11	0	0	1	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	188	0	0	18	0	0	975	0	0	1046	0
Confl. Peds. (#/hr)	14		35	35		14	35		33	33		35
Heavy Vehicles (%)	2%	2%	5%	2%	2%	2%	6%	7%	2%	2%	4%	10%
Parking (#/hr)	0	0	0	0	0	0						
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		21.6			21.6			68.4			68.4	
Effective Green, g (s)		23.6			23.6			70.4			70.4	
Actuated g/C Ratio		0.24			0.24			0.70			0.70	
Clearance Time (s)		4.0			4.0			6.0			6.0	
Vehicle Extension (s)		1.0			1.0			1.0			1.0	
Lane Grp Cap (vph)		266			282			1567			1993	
v/s Ratio Prot												
v/s Ratio Perm		c0.17			0.02			c0.44			0.37	
v/c Ratio		0.71			0.06			0.62			0.52	
Uniform Delay, d1		35.0			29.6			7.8			6.9	
Progression Factor		1.00			1.00			0.80			0.64	
Incremental Delay, d2		6.9			0.0			1.1			0.8	
Delay (s)		41.9			29.7			7.3			5.3	
Level of Service		D			C			A			A	
Approach Delay (s)		41.9			29.7			7.3			5.3	
Approach LOS		D			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	91.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	42	32	984	1144
v/c Ratio	0.21	0.15	0.81	0.98
Control Delay	38.5	36.0	16.9	44.5
Queue Delay	0.0	0.0	0.0	3.1
Total Delay	38.5	36.0	16.9	47.6
Queue Length 50th (ft)	22	16	248	387
Queue Length 95th (ft)	54	43	m228	#533
Internal Link Dist (ft)	251	135	463	229
Turn Bay Length (ft)				
Base Capacity (vph)	240	263	1219	1162
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	17
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.17	0.12	0.81	1.00

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 (vph)	17	1	22	13	1	16	13	906	25	27	1052	19
Future Volume (vph)	17	1	22	13	1	16	13	906	25	27	1052	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	10	12	10	10	10	10	12
Grade (%)		0%			-5%			1%			-2%	
Total Lost time (s)		4.0			4.0			3.0			3.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.98			0.99			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.93			0.93			1.00			1.00	
Flt Protected		0.98			0.98			1.00			1.00	
Satd. Flow (prot)		1491			1541			2805			2778	
Flt Permitted		0.98			0.98			0.92			0.89	
Satd. Flow (perm)		1491			1541			2595			2474	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	18	1	23	14	1	17	14	944	26	28	1096	20
RTOR Reduction (vph)	0	2	0	0	2	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	40	0	0	30	0	0	984	0	0	1143	0
Confl. Peds. (#/hr)	6		11	11		6	33		18	18		33
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	7%	2%	6%	4%	2%
Parking (#/hr)				0		0					0	
Turn Type	Split	NA		Split	NA		Perm	NA		Perm	NA	
Protected Phases	3	3		4	4			6			2	
Permitted Phases							6			2		
Actuated Green, G (s)		9.8			10.4			42.6			42.6	
Effective Green, g (s)		11.8			12.4			44.6			44.6	
Actuated g/C Ratio		0.12			0.12			0.45			0.45	
Clearance Time (s)		6.0			6.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			1.0			1.0	
Lane Grp Cap (vph)		175			191			1157			1103	
v/s Ratio Prot		c0.03			c0.02							
v/s Ratio Perm								0.38			c0.46	
v/c Ratio		0.23			0.16			0.85			1.04	
Uniform Delay, d1		40.0			39.1			24.7			27.7	
Progression Factor		1.00			1.00			0.70			0.84	
Incremental Delay, d2		0.7			0.4			0.8			35.1	
Delay (s)		40.7			39.5			18.2			58.3	
Level of Service		D			D			B			E	
Approach Delay (s)		40.7			39.5			18.2			58.3	
Approach LOS		D			D			B			E	

Intersection Summary			
HCM 2000 Control Delay	39.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	68.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

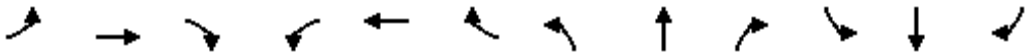
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	258	188	1187	1194
v/c Ratio	1.05	1.01	1.05	0.86
Control Delay	110.4	108.8	59.3	26.1
Queue Delay	17.0	21.4	0.0	0.1
Total Delay	127.5	130.2	59.3	26.2
Queue Length 50th (ft)	~173	~120	~201	226
Queue Length 95th (ft)	#332	#265	#213	m236
Internal Link Dist (ft)	524	236	236	463
Turn Bay Length (ft)				
Base Capacity (vph)	245	187	1131	1388
Starvation Cap Reductn	0	0	0	6
Spillback Cap Reductn	16	12	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.13	1.07	1.05	0.86

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.



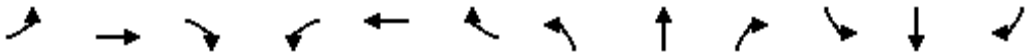
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	26	147	58	89	28	199	881	24	25	1000	86
Future Volume (vph)	67	26	147	58	89	28	199	881	24	25	1000	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	10	10	10	10	10	10	10	10	10
Grade (%)		-4%			-1%			2%			-1%	
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			1.00			0.99	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.92			0.98			1.00			0.99	
Flt Protected		0.99			0.98			0.99			1.00	
Satd. Flow (prot)		1475			1348			2802			2903	
Flt Permitted		0.78			0.67			0.51			0.90	
Satd. Flow (perm)		1168			923			1442			2614	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	72	28	158	62	96	30	214	947	26	27	1075	92
RTOR Reduction (vph)	0	12	0	0	2	0	0	2	0	0	4	0
Lane Group Flow (vph)	0	246	0	0	186	0	0	1185	0	0	1190	0
Confl. Peds. (#/hr)	32		2	2		32	26		19	19		26
Heavy Vehicles (%)	10%	2%	10%	2%	2%	2%	9%	5%	2%	2%	3%	2%
Bus Blockages (#/hr)	14	14	14	0	0	0	0	0	0	0	0	0
Parking (#/hr)				0	0	0						
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		8			4		5	2			6	
Permitted Phases	8			4			2			6		
Actuated Green, G (s)		18.0			18.0			66.0			51.0	
Effective Green, g (s)		20.0			20.0			68.0			53.0	
Actuated g/C Ratio		0.20			0.20			0.68			0.53	
Clearance Time (s)		7.0			7.0			6.0			6.0	
Lane Grp Cap (vph)		233			184			1143			1385	
v/s Ratio Prot								c0.12				
v/s Ratio Perm		c0.21			0.20			c0.58			0.46	
v/c Ratio		1.06			1.01			1.04			0.86	
Uniform Delay, d1		40.0			40.0			16.0			20.3	
Progression Factor		1.00			1.00			1.71			1.10	
Incremental Delay, d2		74.4			68.6			33.5			3.0	
Delay (s)		114.4			108.6			60.8			25.4	
Level of Service		F			F			E			C	
Approach Delay (s)		114.4			108.6			60.8			25.4	
Approach LOS		F			F			E			C	

Intersection Summary			
HCM 2000 Control Delay	53.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	99.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	59	188	986	1256
v/c Ratio	0.21	0.54	0.69	0.84
Control Delay	33.4	38.2	21.1	15.3
Queue Delay	0.4	2.6	0.1	1.8
Total Delay	33.9	40.9	21.2	17.1
Queue Length 50th (ft)	30	98	235	183
Queue Length 95th (ft)	66	169	310	m210
Internal Link Dist (ft)	495	513	594	236
Turn Bay Length (ft)				
Base Capacity (vph)	279	349	1432	1500
Starvation Cap Reductn	0	0	0	120
Spillback Cap Reductn	64	79	28	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.27	0.70	0.70	0.91

Intersection Summary

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



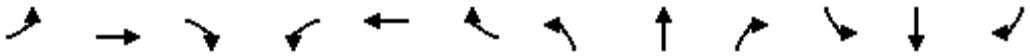
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	12	17	21	13	146	11	933	3	92	1097	16
Future Volume (vph)	27	12	17	21	13	146	11	933	3	92	1097	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	11	11	11	11	11	11
Grade (%)		-4%			-1%			1%			-2%	
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.96			0.89			1.00			1.00	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1518			1584			2943			2972	
Flt Permitted		0.81			0.96			0.93			0.70	
Satd. Flow (perm)		1264			1536			2753			2095	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	28	12	18	22	14	152	11	972	3	96	1143	17
RTOR Reduction (vph)	0	2	0	0	12	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	57	0	0	176	0	0	986	0	0	1255	0
Confl. Peds. (#/hr)	4		8	8		4	43		28	28		43
Heavy Vehicles (%)	10%	10%	6%	2%	10%	4%	9%	6%	2%	9%	4%	7%
Bus Blockages (#/hr)	0	0	0	7	7	7	0	0	0	0	7	0
Parking (#/hr)	0	0	0									
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			4			6		5	2	
Permitted Phases	4			4			6			2		
Actuated Green, G (s)		20.0			20.0			50.0			65.0	
Effective Green, g (s)		22.0			22.0			52.0			67.0	
Actuated g/C Ratio		0.22			0.22			0.52			0.67	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		278			337			1431			1508	
v/s Ratio Prot											c0.10	
v/s Ratio Perm		0.05			c0.11			0.36			c0.46	
v/c Ratio		0.21			0.52			0.69			0.83	
Uniform Delay, d1		31.9			34.4			18.0			12.3	
Progression Factor		1.00			1.00			1.00			1.10	
Incremental Delay, d2		1.7			5.7			2.7			2.5	
Delay (s)		33.5			40.1			20.7			16.0	
Level of Service		C			D			C			B	
Approach Delay (s)		33.5			40.1			20.7			16.0	
Approach LOS		C			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	20.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	93.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	32	13	6	27	3	1
Future Volume (Veh/h)	32	13	6	27	3	1
Sign Control	Free			Free	Stop	
Grade	0%			-5%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	38	15	7	32	4	1
Pedestrians					7	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	215					
pX, platoon unblocked						
vC, conflicting volume			60		98	52
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			60		98	52
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1535		891	1009

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	53	39	5
Volume Left	0	7	4
Volume Right	15	0	1
cSH	1700	1535	912
Volume to Capacity	0.03	0.00	0.01
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	1.3	9.0
Lane LOS		A	A
Approach Delay (s)	0.0	1.3	9.0
Approach LOS			A

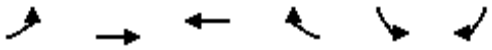
Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	17.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	2	19	9	3	25	4	1	3	2	6	9	6
Future Volume (vph)	2	19	9	3	25	4	1	3	2	6	9	6
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	2	22	11	4	29	5	1	4	2	7	11	7

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	35	38	7	25
Volume Left (vph)	2	4	1	7
Volume Right (vph)	11	5	2	7
Hadj (s)	-0.14	-0.02	-0.11	-0.08
Departure Headway (s)	3.9	4.0	4.0	4.0
Degree Utilization, x	0.04	0.04	0.01	0.03
Capacity (veh/h)	917	892	878	883
Control Delay (s)	7.0	7.1	7.0	7.1
Approach Delay (s)	7.0	7.1	7.0	7.1
Approach LOS	A	A	A	A

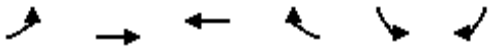
Intersection Summary			
Delay	7.1		
Level of Service	A		
Intersection Capacity Utilization	15.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	9	68	174	11	1	2
Future Volume (Veh/h)	9	68	174	11	1	2
Sign Control		Free	Free		Stop	
Grade		0%	-1%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	11	80	205	13	1	2
Pedestrians					36	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					3	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		316				
pX, platoon unblocked						
vC, conflicting volume	254				350	248
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	254				350	248
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				100	100
cM capacity (veh/h)	1272				623	767

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	91	218	3
Volume Left	11	0	1
Volume Right	0	13	2
cSH	1272	1700	712
Volume to Capacity	0.01	0.13	0.00
Queue Length 95th (ft)	1	0	0
Control Delay (s)	1.0	0.0	10.1
Lane LOS	A		B
Approach Delay (s)	1.0	0.0	10.1
Approach LOS			B

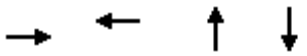
Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	22.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	52	160	4	1	20
Future Volume (Veh/h)	5	52	160	4	1	20
Sign Control		Free	Free		Stop	
Grade		0%	-1%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	6	61	188	5	1	24
Pedestrians					29	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					2	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		671				
pX, platoon unblocked						
vC, conflicting volume	222				292	220
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	222				292	220
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	97
cM capacity (veh/h)	1314				678	800

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	67	193	25
Volume Left	6	0	1
Volume Right	0	5	24
cSH	1314	1700	795
Volume to Capacity	0.00	0.11	0.03
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.7	0.0	9.7
Lane LOS	A		A
Approach Delay (s)	0.7	0.0	9.7
Approach LOS			A

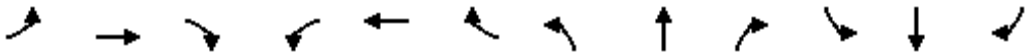
Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	21.9%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	58	85	1057	1018
v/c Ratio	0.20	0.42	0.58	0.56
Control Delay	34.7	42.4	3.3	10.2
Queue Delay	0.0	0.0	0.3	0.0
Total Delay	34.7	42.4	3.6	10.2
Queue Length 50th (ft)	30	47	18	160
Queue Length 95th (ft)	66	96	m20	212
Internal Link Dist (ft)	467	571	219	744
Turn Bay Length (ft)				
Base Capacity (vph)	297	200	1820	1814
Starvation Cap Reductn	0	0	255	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.20	0.42	0.68	0.56

Intersection Summary

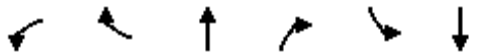
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	11	26	54	10	20	26	942	68	32	935	30
Future Volume (vph)	20	11	26	54	10	20	26	942	68	32	935	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	9	9	9	11	11	11	11	11	11
Grade (%)		-7%			-4%			2%			-2%	
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.98			0.99			0.99			1.00	
Flpb, ped/bikes		0.99			0.99			1.00			1.00	
Frt		0.94			0.97			0.99			1.00	
Flt Protected		0.98			0.97			1.00			1.00	
Satd. Flow (prot)		1709			1265			2992			3052	
Flt Permitted		0.89			0.80			0.91			0.89	
Satd. Flow (perm)		1553			1046			2715			2708	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	20	11	27	55	10	20	27	961	69	33	954	31
RTOR Reduction (vph)	0	2	0	0	2	0	0	2	0	0	1	0
Lane Group Flow (vph)	0	56	0	0	83	0	0	1055	0	0	1017	0
Confl. Peds. (#/hr)	24		14	14		24	23		27	27		23
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Parking (#/hr)				0	0	0						
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		17.0			17.0			65.0			65.0	
Effective Green, g (s)		19.0			19.0			67.0			67.0	
Actuated g/C Ratio		0.19			0.19			0.67			0.67	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		295			198			1819			1814	
v/s Ratio Prot												
v/s Ratio Perm		0.04			c0.08			c0.39			0.38	
v/c Ratio		0.19			0.42			0.58			0.56	
Uniform Delay, d1		34.0			35.7			8.9			8.7	
Progression Factor		1.00			1.00			0.29			1.00	
Incremental Delay, d2		1.4			6.5			0.6			1.3	
Delay (s)		35.4			42.1			3.2			10.0	
Level of Service		D			D			A			A	
Approach Delay (s)		35.4			42.1			3.2			10.0	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	14	12	1025	30	12	1006
Future Volume (Veh/h)	14	12	1025	30	12	1006
Sign Control	Stop		Free			Free
Grade	0%		2%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	15	13	1079	32	13	1059
Pedestrians	41		3			9
Lane Width (ft)	12.0		12.0			12.0
Walking Speed (ft/s)	4.0		4.0			4.0
Percent Blockage	3		0			1
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			255			299
pX, platoon unblocked	0.88	0.81			0.81	
vC, conflicting volume	1694	606			1152	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	754	30			708	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	95	98			98	
cM capacity (veh/h)	287	802			690	

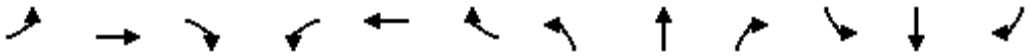
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	28	719	392	366	706
Volume Left	15	0	0	13	0
Volume Right	13	0	32	0	0
cSH	409	1700	1700	690	1700
Volume to Capacity	0.07	0.42	0.23	0.02	0.42
Queue Length 95th (ft)	5	0	0	1	0
Control Delay (s)	14.4	0.0	0.0	0.6	0.0
Lane LOS	B			A	
Approach Delay (s)	14.4	0.0		0.2	
Approach LOS	B				

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	220	11	1261	1045
v/c Ratio	0.75	0.04	0.89	0.52
Control Delay	47.1	23.4	26.2	7.4
Queue Delay	0.0	0.0	8.6	1.1
Total Delay	47.2	23.4	34.8	8.6
Queue Length 50th (ft)	115	5	271	117
Queue Length 95th (ft)	185	17	m219	163
Internal Link Dist (ft)	356	884	229	175
Turn Bay Length (ft)				
Base Capacity (vph)	393	403	1410	2018
Starvation Cap Reductn	0	0	136	79
Spillback Cap Reductn	3	0	0	679
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.56	0.03	0.99	0.78

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 (vph)	56	1	155	3	1	7	120	1089	2	3	940	60
Future Volume (vph)	56	1	155	3	1	7	120	1089	2	3	940	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		2%			2%			5%			0%	
Total Lost time (s)		2.0			2.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.97			0.98			1.00			1.00	
Flpb, ped/bikes		1.00			0.99			1.00			1.00	
Frt		0.90			0.91			1.00			0.99	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1236			1273			2984			3040	
Flt Permitted		0.93			0.95			0.68			0.95	
Satd. Flow (perm)		1160			1223			2025			2895	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	58	1	161	3	1	7	125	1134	2	3	979	62
RTOR Reduction (vph)	0	12	0	0	1	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	208	0	0	10	0	0	1261	0	0	1043	0
Confl. Peds. (#/hr)	13		30	30		13	55		26	26		55
Parking (#/hr)	0	0	0	0	0	0						
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		22.3			22.3			67.7			67.7	
Effective Green, g (s)		24.3			24.3			69.7			69.7	
Actuated g/C Ratio		0.24			0.24			0.70			0.70	
Clearance Time (s)		4.0			4.0			6.0			6.0	
Vehicle Extension (s)		1.0			1.0			1.0			1.0	
Lane Grp Cap (vph)		281			297			1411			2017	
v/s Ratio Prot												
v/s Ratio Perm		c0.18			0.01			c0.62			0.36	
v/c Ratio		0.74			0.03			0.89			0.52	
Uniform Delay, d1		34.9			28.9			12.2			7.2	
Progression Factor		1.00			1.00			1.78			0.78	
Incremental Delay, d2		8.5			0.0			0.9			0.8	
Delay (s)		43.4			28.9			22.6			6.4	
Level of Service		D			C			C			A	
Approach Delay (s)		43.4			28.9			22.6			6.4	
Approach LOS		D			C			C			A	

Intersection Summary			
HCM 2000 Control Delay	17.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	100.0%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

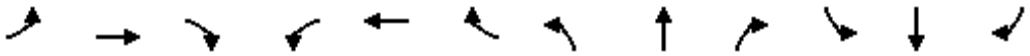
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	29	38	1274	1162
v/c Ratio	0.15	0.18	1.14	1.19
Control Delay	36.7	36.2	101.0	119.2
Queue Delay	0.0	388.4	0.2	0.5
Total Delay	36.7	424.6	101.1	119.6
Queue Length 50th (ft)	15	19	~520	~490
Queue Length 95th (ft)	41	49	m#570	#626
Internal Link Dist (ft)	251	135	463	229
Turn Bay Length (ft)				
Base Capacity (vph)	234	257	1119	977
Starvation Cap Reductn	0	0	0	88
Spillback Cap Reductn	0	255	43	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.12	19.00	1.18	1.31

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 (vph)	11	1	15	7	2	28	29	1160	21	33	1032	39
Future Volume (vph)	11	1	15	7	2	28	29	1160	21	33	1032	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	10	12	10	10	10	10	12
Grade (%)		0%			-5%			1%			-2%	
Total Lost time (s)		4.0			4.0			3.0			3.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.96			0.98			1.00			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.93			0.90			1.00			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1457			1497			2941			2791	
Flt Permitted		0.98			0.99			0.81			0.74	
Satd. Flow (perm)		1457			1497			2383			2075	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	12	1	16	7	2	29	31	1221	22	35	1086	41
RTOR Reduction (vph)	0	2	0	0	3	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	27	0	0	35	0	0	1274	0	0	1160	0
Confl. Peds. (#/hr)	7		30	30		7	90		25	25		90
Parking (#/hr)				0		0					0	
Turn Type	Split	NA		Split	NA		Perm	NA		Perm	NA	
Protected Phases	3	3		4	4			6			2	
Permitted Phases							6			2		
Actuated Green, G (s)		9.8			10.4			42.6			42.6	
Effective Green, g (s)		11.8			12.4			44.6			44.6	
Actuated g/C Ratio		0.12			0.12			0.45			0.45	
Clearance Time (s)		6.0			6.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			1.0			1.0	
Lane Grp Cap (vph)		171			185			1062			925	
v/s Ratio Prot		c0.02			c0.02							
v/s Ratio Perm								0.53			c0.56	
v/c Ratio		0.16			0.19			1.20			1.25	
Uniform Delay, d1		39.6			39.3			27.7			27.7	
Progression Factor		1.00			1.00			1.34			0.89	
Incremental Delay, d2		0.4			0.5			93.6			122.0	
Delay (s)		40.1			39.8			130.9			146.7	
Level of Service		D			D			F			F	
Approach Delay (s)		40.1			39.8			130.9			146.7	
Approach LOS		D			D			F			F	

Intersection Summary			
HCM 2000 Control Delay	135.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	76.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

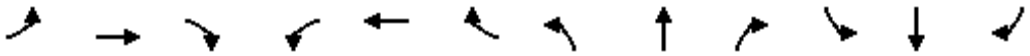
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	290	84	1240	1027
v/c Ratio	1.06	0.35	0.94	0.75
Control Delay	109.0	36.9	30.3	29.5
Queue Delay	0.0	0.0	1.5	0.4
Total Delay	109.0	36.9	31.7	29.9
Queue Length 50th (ft)	~198	44	165	373
Queue Length 95th (ft)	#364	90	#276	m315
Internal Link Dist (ft)	524	236	236	463
Turn Bay Length (ft)				
Base Capacity (vph)	274	240	1313	1366
Starvation Cap Reductn	0	0	21	67
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.06	0.35	0.96	0.79

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

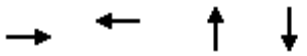
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

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 (vph)	119	49	117	17	32	33	126	1063	25	31	893	82
Future Volume (vph)	119	49	117	17	32	33	126	1063	25	31	893	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	10	10	10	10	10	10	10	10	10
Grade (%)		-4%			-1%			2%			-1%	
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.96			1.00			0.99	
Flpb, ped/bikes		0.97			1.00			1.00			1.00	
Frt		0.94			0.95			1.00			0.99	
Flt Protected		0.98			0.99			0.99			1.00	
Satd. Flow (prot)		1477			1271			2890			2889	
Flt Permitted		0.84			0.88			0.62			0.87	
Satd. Flow (perm)		1265			1133			1813			2524	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	121	50	119	17	33	34	129	1085	26	32	911	84
RTOR Reduction (vph)	0	9	0	0	3	0	0	1	0	0	4	0
Lane Group Flow (vph)	0	281	0	0	81	0	0	1239	0	0	1023	0
Confl. Peds. (#/hr)	51		13	13		51	40		22	22		40
Heavy Vehicles (%)	10%	2%	10%	2%	2%	2%	10%	2%	2%	2%	3%	2%
Bus Blockages (#/hr)	14	14	14	0	0	0	0	0	0	0	0	0
Parking (#/hr)				0	0	0						
Turn Type	Perm	NA		Perm	NA		custom	NA		Perm	NA	
Protected Phases		8			4		5	2			6	
Permitted Phases	8			4			5			6		
Actuated Green, G (s)		19.0			19.0			65.0			52.0	
Effective Green, g (s)		21.0			21.0			67.0			54.0	
Actuated g/C Ratio		0.21			0.21			0.67			0.54	
Clearance Time (s)		7.0			7.0			6.0			6.0	
Lane Grp Cap (vph)		265			237			1322			1362	
v/s Ratio Prot								c0.09				
v/s Ratio Perm		c0.22			0.07			c0.53			0.41	
v/c Ratio		1.06			0.34			0.94			0.75	
Uniform Delay, d1		39.5			33.6			14.6			17.8	
Progression Factor		1.00			1.00			1.42			1.60	
Incremental Delay, d2		72.5			3.9			10.2			0.4	
Delay (s)		112.0			37.5			31.0			28.9	
Level of Service		F			D			C			C	
Approach Delay (s)		112.0			37.5			31.0			28.9	
Approach LOS		F			D			C			C	

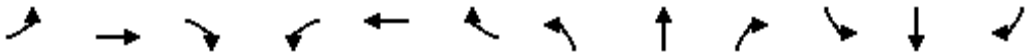
Intersection Summary			
HCM 2000 Control Delay	39.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	105.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	40	126	1139	1054
v/c Ratio	0.13	0.37	0.76	0.84
Control Delay	32.2	33.7	23.2	18.0
Queue Delay	0.2	1.0	0.0	0.0
Total Delay	32.4	34.7	23.2	18.0
Queue Length 50th (ft)	20	62	288	109
Queue Length 95th (ft)	49	117	376	m166
Internal Link Dist (ft)	495	513	594	236
Turn Bay Length (ft)				
Base Capacity (vph)	300	344	1497	1254
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	72	81	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.18	0.48	0.76	0.84

Intersection Summary

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



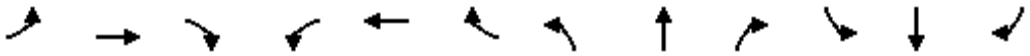
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	8	12	11	6	106	5	1089	11	140	869	14
Future Volume (vph)	19	8	12	11	6	106	5	1089	11	140	869	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	11	11	11	11	11	11
Grade (%)		-4%			-1%			1%			-2%	
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.96			0.88			1.00			1.00	
Flt Protected		0.98			1.00			1.00			0.99	
Satd. Flow (prot)		1566			1554			3025			2957	
Flt Permitted		0.85			0.98			0.95			0.56	
Satd. Flow (perm)		1362			1528			2876			1660	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	20	8	12	11	6	109	5	1123	11	144	896	14
RTOR Reduction (vph)	0	1	0	0	9	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	39	0	0	117	0	0	1139	0	0	1054	0
Confl. Peds. (#/hr)	3		11	11		3	33		28	28		33
Heavy Vehicles (%)	5%	2%	8%	2%	2%	6%	10%	3%	2%	3%	5%	2%
Bus Blockages (#/hr)	0	0	0	7	7	7	0	0	0	0	7	0
Parking (#/hr)	0	0	0									
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			4			6		5	2	
Permitted Phases	4			4			6			2		
Actuated Green, G (s)		20.0			20.0			50.0			65.0	
Effective Green, g (s)		22.0			22.0			52.0			67.0	
Actuated g/C Ratio		0.22			0.22			0.52			0.67	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		299			336			1495			1267	
v/s Ratio Prot											c0.10	
v/s Ratio Perm		0.03			c0.08			0.40			c0.46	
v/c Ratio		0.13			0.35			0.76			0.83	
Uniform Delay, d1		31.3			33.0			19.1			12.3	
Progression Factor		1.00			1.00			1.00			1.29	
Incremental Delay, d2		0.9			2.9			3.7			4.1	
Delay (s)		32.2			35.8			22.8			19.9	
Level of Service		C			D			C			B	
Approach Delay (s)		32.2			35.8			22.8			19.9	
Approach LOS		C			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	22.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	92.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	47	2	1	40	5	1
Future Volume (Veh/h)	47	2	1	40	5	1
Sign Control	Free			Free	Stop	
Grade	0%			-5%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	55	2	1	47	6	1
Pedestrians				1	15	
Lane Width (ft)				12.0	12.0	
Walking Speed (ft/s)				4.0	4.0	
Percent Blockage				0	1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	215					
pX, platoon unblocked						
vC, conflicting volume			72		120	72
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			72		120	72
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1509		864	977

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	57	48	7
Volume Left	0	1	6
Volume Right	2	0	1
cSH	1700	1509	879
Volume to Capacity	0.03	0.00	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.2	9.1
Lane LOS		A	A
Approach Delay (s)	0.0	0.2	9.1
Approach LOS			A

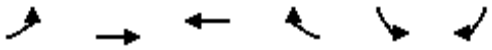
Intersection Summary			
Average Delay		0.6	
Intersection Capacity Utilization		17.6%	ICU Level of Service A
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	3	26	9	1	30	4	2	6	3	4	3	2
Future Volume (vph)	3	26	9	1	30	4	2	6	3	4	3	2
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	4	31	11	1	35	5	2	7	4	5	4	2

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	46	41	13	11
Volume Left (vph)	4	1	2	5
Volume Right (vph)	11	5	4	2
Hadj (s)	-0.09	-0.03	-0.12	0.02
Departure Headway (s)	3.9	4.0	4.0	4.1
Degree Utilization, x	0.05	0.05	0.01	0.01
Capacity (veh/h)	910	897	875	853
Control Delay (s)	7.1	7.1	7.0	7.2
Approach Delay (s)	7.1	7.1	7.0	7.2
Approach LOS	A	A	A	A

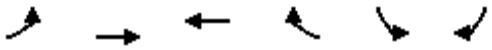
Intersection Summary				
Delay	7.1			
Level of Service	A			
Intersection Capacity Utilization	17.1%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	19	90	77	5	1	4
Future Volume (Veh/h)	19	90	77	5	1	4
Sign Control		Free	Free		Stop	
Grade		0%	-1%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	22	106	91	6	1	5
Pedestrians					45	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					4	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		316				
pX, platoon unblocked						
vC, conflicting volume	142				289	139
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	142				289	139
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				100	99
cM capacity (veh/h)	1387				665	875

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	128	97	6
Volume Left	22	0	1
Volume Right	0	6	5
cSH	1387	1700	831
Volume to Capacity	0.02	0.06	0.01
Queue Length 95th (ft)	1	0	1
Control Delay (s)	1.4	0.0	9.4
Lane LOS	A		A
Approach Delay (s)	1.4	0.0	9.4
Approach LOS			A

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	23.1%	ICU Level of Service	A
Analysis Period (min)	15		

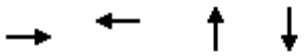


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	85	69	4	8	1
Future Volume (Veh/h)	4	85	69	4	8	1
Sign Control		Free	Free		Stop	
Grade		0%	-1%		0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	5	97	78	5	9	1
Pedestrians					34	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					3	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		671				
pX, platoon unblocked						
vC, conflicting volume	117				222	114
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	117				222	114
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1430				742	911

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	102	83	10
Volume Left	5	0	9
Volume Right	0	5	1
cSH	1430	1700	756
Volume to Capacity	0.00	0.05	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.4	0.0	9.8
Lane LOS	A		A
Approach Delay (s)	0.4	0.0	9.8
Approach LOS			A

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	20.5%	ICU Level of Service	A
Analysis Period (min)	15		

H. Future (2033) Conditions with Development Capacity Analysis Worksheets

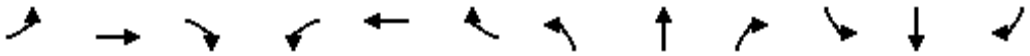


Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	114	201	935	911
v/c Ratio	0.43	1.18	0.62	0.50
Control Delay	41.5	161.9	13.3	9.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	41.5	161.9	13.3	9.3
Queue Length 50th (ft)	65	~154	153	135
Queue Length 95th (ft)	119	#295	151	178
Internal Link Dist (ft)	467	571	219	744
Turn Bay Length (ft)				
Base Capacity (vph)	266	171	1519	1829
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.43	1.18	0.62	0.50

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 (vph)	56	8	47	142	24	29	72	788	48	25	807	51
Future Volume (vph)	56	8	47	142	24	29	72	788	48	25	807	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	9	9	9	11	11	11	11	11	11
Grade (%)		-7%			-4%			2%			-2%	
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			0.99			0.99	
Flpb, ped/bikes		0.99			0.99			1.00			1.00	
Frt		0.94			0.98			0.99			0.99	
Flt Protected		0.98			0.96			1.00			1.00	
Satd. Flow (prot)		1697			1243			2860			3004	
Flt Permitted		0.81			0.70			0.79			0.91	
Satd. Flow (perm)		1403			902			2267			2731	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	58	8	48	146	25	30	74	812	49	26	832	53
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	114	0	0	201	0	0	935	0	0	911	0
Confl. Peds. (#/hr)	23		13	13		23	22		34	34		22
Heavy Vehicles (%)	2%	2%	4%	5%	2%	10%	2%	7%	6%	4%	4%	2%
Parking (#/hr)				0	0	0						
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		17.0			17.0			65.0			65.0	
Effective Green, g (s)		19.0			19.0			67.0			67.0	
Actuated g/C Ratio		0.19			0.19			0.67			0.67	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		266			171			1518			1829	
v/s Ratio Prot												
v/s Ratio Perm		0.08			c0.22			c0.41			0.33	
v/c Ratio		0.43			1.18			0.62			0.50	
Uniform Delay, d1		35.7			40.5			9.3			8.2	
Progression Factor		1.00			1.00			1.22			1.00	
Incremental Delay, d2		5.0			123.9			1.5			1.0	
Delay (s)		40.7			164.4			12.9			9.1	
Level of Service		D			F			B			A	
Approach Delay (s)		40.7			164.4			12.9			9.1	
Approach LOS		D			F			B			A	

Intersection Summary			
HCM 2000 Control Delay	26.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	29	17	891	13	8	996
Future Volume (Veh/h)	29	17	891	13	8	996
Sign Control	Stop		Free			Free
Grade	0%		2%			0%
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	30	18	919	13	8	1027
Pedestrians	37					2
Lane Width (ft)	12.0					12.0
Walking Speed (ft/s)	4.0					4.0
Percent Blockage	3					0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			255			299
pX, platoon unblocked	0.93	0.87			0.87	
vC, conflicting volume	1492	505			969	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	795	140			672	
tC, single (s)	6.8	7.0			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	90	98			99	
cM capacity (veh/h)	291	734			773	

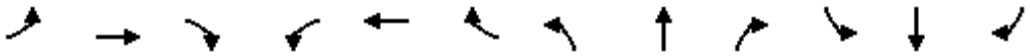
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	48	613	319	350	685
Volume Left	30	0	0	8	0
Volume Right	18	0	13	0	0
cSH	376	1700	1700	773	1700
Volume to Capacity	0.13	0.36	0.19	0.01	0.40
Queue Length 95th (ft)	11	0	0	1	0
Control Delay (s)	16.0	0.0	0.0	0.3	0.0
Lane LOS	C			A	
Approach Delay (s)	16.0	0.0		0.1	
Approach LOS	C				

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	199	19	976	1052
v/c Ratio	0.72	0.07	0.62	0.53
Control Delay	46.1	25.3	8.8	6.2
Queue Delay	0.0	0.0	0.0	0.7
Total Delay	46.2	25.3	8.8	6.9
Queue Length 50th (ft)	102	8	50	111
Queue Length 95th (ft)	171	25	116	m127
Internal Link Dist (ft)	356	884	229	175
Turn Bay Length (ft)				
Base Capacity (vph)	381	395	1566	1994
Starvation Cap Reductn	0	0	0	65
Spillback Cap Reductn	2	0	0	564
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.53	0.05	0.62	0.74

Intersection Summary

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



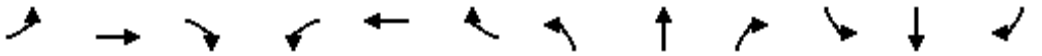
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	1	141	6	1	12	69	874	4	4	955	61
Future Volume (vph)	51	1	141	6	1	12	69	874	4	4	955	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		2%			2%			5%			0%	
Total Lost time (s)		2.0			2.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.96			0.98			1.00			1.00	
Flpb, ped/bikes		1.00			0.99			1.00			1.00	
Frt		0.90			0.91			1.00			0.99	
Flt Protected		0.99			0.98			1.00			1.00	
Satd. Flow (prot)		1206			1268			2851			2974	
Flt Permitted		0.92			0.93			0.78			0.95	
Satd. Flow (perm)		1129			1197			2225			2833	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	53	1	145	6	1	12	71	901	4	4	985	63
RTOR Reduction (vph)	0	11	0	0	1	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	188	0	0	18	0	0	976	0	0	1050	0
Confl. Peds. (#/hr)	14		35	35		14	35		33	33		35
Heavy Vehicles (%)	2%	2%	5%	2%	2%	2%	6%	7%	2%	2%	4%	10%
Parking (#/hr)	0	0	0	0	0	0						
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		21.6			21.6			68.4			68.4	
Effective Green, g (s)		23.6			23.6			70.4			70.4	
Actuated g/C Ratio		0.24			0.24			0.70			0.70	
Clearance Time (s)		4.0			4.0			6.0			6.0	
Vehicle Extension (s)		1.0			1.0			1.0			1.0	
Lane Grp Cap (vph)		266			282			1566			1994	
v/s Ratio Prot												
v/s Ratio Perm		c0.17			0.02			c0.44			0.37	
v/c Ratio		0.71			0.06			0.62			0.53	
Uniform Delay, d1		35.0			29.6			7.8			7.0	
Progression Factor		1.00			1.00			0.80			0.64	
Incremental Delay, d2		6.9			0.0			1.1			0.8	
Delay (s)		41.9			29.7			7.4			5.3	
Level of Service		D			C			A			A	
Approach Delay (s)		41.9			29.7			7.4			5.3	
Approach LOS		D			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	91.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	42	33	987	1146
v/c Ratio	0.21	0.15	0.81	0.99
Control Delay	38.5	36.1	17.1	45.0
Queue Delay	0.0	0.0	0.0	4.1
Total Delay	38.5	36.1	17.1	49.2
Queue Length 50th (ft)	22	17	250	388
Queue Length 95th (ft)	54	45	m226	#535
Internal Link Dist (ft)	251	135	463	229
Turn Bay Length (ft)				
Base Capacity (vph)	240	264	1218	1161
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	21
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.17	0.13	0.81	1.01

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 (vph)	17	1	22	14	1	16	13	907	27	27	1054	19
Future Volume (vph)	17	1	22	14	1	16	13	907	27	27	1054	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	10	12	10	10	10	10	12
Grade (%)		0%			-5%			1%			-2%	
Total Lost time (s)		4.0			4.0			3.0			3.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.98			0.99			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.93			0.93			1.00			1.00	
Flt Protected		0.98			0.98			1.00			1.00	
Satd. Flow (prot)		1491			1544			2804			2778	
Flt Permitted		0.98			0.98			0.92			0.89	
Satd. Flow (perm)		1491			1544			2592			2471	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	18	1	23	15	1	17	14	945	28	28	1098	20
RTOR Reduction (vph)	0	2	0	0	2	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	40	0	0	31	0	0	987	0	0	1145	0
Confl. Peds. (#/hr)	6		11	11		6	33		18	18		33
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	7%	2%	6%	4%	2%
Parking (#/hr)				0		0					0	
Turn Type	Split	NA		Split	NA		Perm	NA		Perm	NA	
Protected Phases	3	3		4	4			6			2	
Permitted Phases							6			2		
Actuated Green, G (s)		9.8			10.4			42.6			42.6	
Effective Green, g (s)		11.8			12.4			44.6			44.6	
Actuated g/C Ratio		0.12			0.12			0.45			0.45	
Clearance Time (s)		6.0			6.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			1.0			1.0	
Lane Grp Cap (vph)		175			191			1156			1102	
v/s Ratio Prot		c0.03			c0.02							
v/s Ratio Perm								0.38			c0.46	
v/c Ratio		0.23			0.16			0.85			1.04	
Uniform Delay, d1		40.0			39.2			24.8			27.7	
Progression Factor		1.00			1.00			0.71			0.84	
Incremental Delay, d2		0.7			0.4			0.8			35.9	
Delay (s)		40.7			39.6			18.3			59.1	
Level of Service		D			D			B			E	
Approach Delay (s)		40.7			39.6			18.3			59.1	
Approach LOS		D			D			B			E	

Intersection Summary			
HCM 2000 Control Delay	40.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	69.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	262	194	1196	1197
v/c Ratio	1.07	1.07	1.06	0.87
Control Delay	115.0	125.2	62.3	26.4
Queue Delay	11.8	12.8	0.0	0.1
Total Delay	126.8	138.0	62.3	26.5
Queue Length 50th (ft)	~178	~136	~210	227
Queue Length 95th (ft)	#338	#277	#216	m236
Internal Link Dist (ft)	524	236	236	463
Turn Bay Length (ft)				
Base Capacity (vph)	245	182	1130	1379
Starvation Cap Reductn	0	0	0	5
Spillback Cap Reductn	18	13	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.15	1.15	1.06	0.87

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.

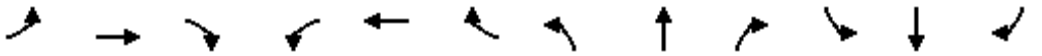
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	29	147	61	90	29	199	882	32	27	1001	86
Future Volume (vph)	68	29	147	61	90	29	199	882	32	27	1001	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	10	10	10	10	10	10	10	10	10
Grade (%)		-4%			-1%			2%			-1%	
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			1.00			0.99	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.92			0.98			1.00			0.99	
Flt Protected		0.99			0.98			0.99			1.00	
Satd. Flow (prot)		1478			1347			2799			2903	
Flt Permitted		0.78			0.66			0.51			0.89	
Satd. Flow (perm)		1167			899			1440			2596	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	73	31	158	66	97	31	214	948	34	29	1076	92
RTOR Reduction (vph)	0	12	0	0	2	0	0	2	0	0	4	0
Lane Group Flow (vph)	0	250	0	0	192	0	0	1194	0	0	1193	0
Confl. Peds. (#/hr)	32		2	2		32	26		19	19		26
Heavy Vehicles (%)	10%	2%	10%	2%	2%	2%	9%	5%	2%	2%	3%	2%
Bus Blockages (#/hr)	14	14	14	0	0	0	0	0	0	0	0	0
Parking (#/hr)				0	0	0						
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		8			4		5	2			6	
Permitted Phases	8			4			2			6		
Actuated Green, G (s)		18.0			18.0			66.0			51.0	
Effective Green, g (s)		20.0			20.0			68.0			53.0	
Actuated g/C Ratio		0.20			0.20			0.68			0.53	
Clearance Time (s)		7.0			7.0			6.0			6.0	
Lane Grp Cap (vph)		233			179			1142			1375	
v/s Ratio Prot								c0.13				
v/s Ratio Perm		c0.21			0.21			c0.59			0.46	
v/c Ratio		1.07			1.07			1.05			0.87	
Uniform Delay, d1		40.0			40.0			16.0			20.4	
Progression Factor		1.00			1.00			1.71			1.10	
Incremental Delay, d2		79.7			87.2			36.2			3.2	
Delay (s)		119.7			127.2			63.5			25.8	
Level of Service		F			F			E			C	
Approach Delay (s)		119.7			127.2			63.5			25.8	
Approach LOS		F			F			E			C	

Intersection Summary			
HCM 2000 Control Delay	57.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	100.1%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	59	189	995	1260
v/c Ratio	0.21	0.54	0.69	0.84
Control Delay	33.5	38.3	21.3	15.2
Queue Delay	0.5	3.2	0.1	2.0
Total Delay	33.9	41.6	21.4	17.2
Queue Length 50th (ft)	30	99	238	184
Queue Length 95th (ft)	66	171	315	m211
Internal Link Dist (ft)	495	513	594	236
Turn Bay Length (ft)				
Base Capacity (vph)	279	349	1432	1497
Starvation Cap Reductn	0	0	0	120
Spillback Cap Reductn	70	86	30	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.28	0.72	0.71	0.92

Intersection Summary

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



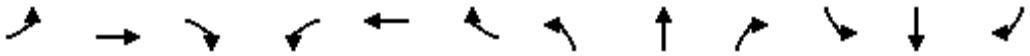
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	12	17	21	13	147	11	942	3	92	1101	16
Future Volume (vph)	27	12	17	21	13	147	11	942	3	92	1101	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	11	11	11	11	11	11
Grade (%)		-4%			-1%			1%			-2%	
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.96			0.89			1.00			1.00	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1518			1584			2943			2972	
Flt Permitted		0.81			0.96			0.94			0.70	
Satd. Flow (perm)		1262			1536			2753			2088	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	28	12	18	22	14	153	11	981	3	96	1147	17
RTOR Reduction (vph)	0	2	0	0	12	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	57	0	0	177	0	0	995	0	0	1259	0
Confl. Peds. (#/hr)	4		8	8		4	43		28	28		43
Heavy Vehicles (%)	10%	10%	6%	2%	10%	4%	9%	6%	2%	9%	4%	7%
Bus Blockages (#/hr)	0	0	0	7	7	7	0	0	0	0	7	0
Parking (#/hr)	0	0	0									
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			4			6		5	2	
Permitted Phases	4			4			6			2		
Actuated Green, G (s)		20.0			20.0			50.0			65.0	
Effective Green, g (s)		22.0			22.0			52.0			67.0	
Actuated g/C Ratio		0.22			0.22			0.52			0.67	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		277			337			1431			1505	
v/s Ratio Prot											c0.10	
v/s Ratio Perm		0.05			c0.12			0.36			c0.46	
v/c Ratio		0.21			0.53			0.70			0.84	
Uniform Delay, d1		31.9			34.4			18.0			12.4	
Progression Factor		1.00			1.00			1.00			1.09	
Incremental Delay, d2		1.7			5.8			2.8			2.4	
Delay (s)		33.6			40.2			20.9			15.9	
Level of Service		C			D			C			B	
Approach Delay (s)		33.6			40.2			20.9			15.9	
Approach LOS		C			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	20.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	93.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	32	15	6	27	4	1
Future Volume (Veh/h)	32	15	6	27	4	1
Sign Control	Free			Free	Stop	
Grade	0%			-5%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	38	18	7	32	5	1
Pedestrians					7	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	215					
pX, platoon unblocked						
vC, conflicting volume			63		100	54
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			63		100	54
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1531		889	1007

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	56	39	6
Volume Left	0	7	5
Volume Right	18	0	1
cSH	1700	1531	907
Volume to Capacity	0.03	0.00	0.01
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	1.3	9.0
Lane LOS		A	A
Approach Delay (s)	0.0	1.3	9.0
Approach LOS			A

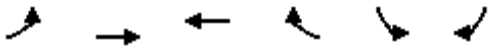
Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	17.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	2	19	9	4	25	4	1	3	2	6	9	6
Future Volume (vph)	2	19	9	4	25	4	1	3	2	6	9	6
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	2	22	11	5	29	5	1	4	2	7	11	7

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	35	39	7	25
Volume Left (vph)	2	5	1	7
Volume Right (vph)	11	5	2	7
Hadj (s)	-0.14	-0.02	-0.11	-0.08
Departure Headway (s)	3.9	4.0	4.0	4.0
Degree Utilization, x	0.04	0.04	0.01	0.03
Capacity (veh/h)	917	891	877	883
Control Delay (s)	7.0	7.2	7.0	7.1
Approach Delay (s)	7.0	7.2	7.0	7.1
Approach LOS	A	A	A	A

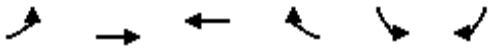
Intersection Summary				
Delay	7.1			
Level of Service	A			
Intersection Capacity Utilization	15.5%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	68	174	12	2	7
Future Volume (Veh/h)	22	68	174	12	2	7
Sign Control		Free	Free		Stop	
Grade		0%	-1%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	26	80	205	14	2	8
Pedestrians					36	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					3	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		316				
pX, platoon unblocked						
vC, conflicting volume	255				380	248
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	255				380	248
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				100	99
cM capacity (veh/h)	1271				591	767

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	106	219	10
Volume Left	26	0	2
Volume Right	0	14	8
cSH	1271	1700	724
Volume to Capacity	0.02	0.13	0.01
Queue Length 95th (ft)	2	0	1
Control Delay (s)	2.1	0.0	10.0
Lane LOS	A		B
Approach Delay (s)	2.1	0.0	10.0
Approach LOS			B

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	31.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	52	161	4	1	20
Future Volume (Veh/h)	5	52	161	4	1	20
Sign Control		Free	Free		Stop	
Grade		0%	-1%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	6	61	189	5	1	24
Pedestrians					29	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					2	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		671				
pX, platoon unblocked						
vC, conflicting volume	223				294	220
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	223				294	220
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	97
cM capacity (veh/h)	1313				677	799

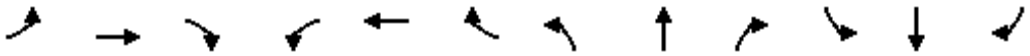
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	67	194	25
Volume Left	6	0	1
Volume Right	0	5	24
cSH	1313	1700	794
Volume to Capacity	0.00	0.11	0.03
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.7	0.0	9.7
Lane LOS	A		A
Approach Delay (s)	0.7	0.0	9.7
Approach LOS			A

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	22.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	58	85	1060	1023
v/c Ratio	0.20	0.42	0.58	0.56
Control Delay	34.7	42.4	3.2	10.2
Queue Delay	0.0	0.0	0.3	0.0
Total Delay	34.7	42.4	3.5	10.2
Queue Length 50th (ft)	30	47	18	161
Queue Length 95th (ft)	66	96	m20	214
Internal Link Dist (ft)	467	571	219	744
Turn Bay Length (ft)				
Base Capacity (vph)	297	200	1820	1814
Starvation Cap Reductn	0	0	255	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.20	0.42	0.68	0.56

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 (vph)	20	11	26	54	10	20	26	945	68	32	940	30
Future Volume (vph)	20	11	26	54	10	20	26	945	68	32	940	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	9	9	9	11	11	11	11	11	11
Grade (%)		-7%			-4%			2%			-2%	
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.98			0.99			0.99			1.00	
Flpb, ped/bikes		0.99			0.99			1.00			1.00	
Frt		0.94			0.97			0.99			1.00	
Flt Protected		0.98			0.97			1.00			1.00	
Satd. Flow (prot)		1709			1265			2993			3052	
Flt Permitted		0.89			0.80			0.91			0.89	
Satd. Flow (perm)		1553			1046			2715			2708	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	20	11	27	55	10	20	27	964	69	33	959	31
RTOR Reduction (vph)	0	2	0	0	2	0	0	2	0	0	1	0
Lane Group Flow (vph)	0	56	0	0	83	0	0	1058	0	0	1022	0
Confl. Peds. (#/hr)	24		14	14		24	23		27	27		23
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Parking (#/hr)				0	0	0						
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		17.0			17.0			65.0			65.0	
Effective Green, g (s)		19.0			19.0			67.0			67.0	
Actuated g/C Ratio		0.19			0.19			0.67			0.67	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		295			198			1819			1814	
v/s Ratio Prot												
v/s Ratio Perm		0.04			c0.08			c0.39			0.38	
v/c Ratio		0.19			0.42			0.58			0.56	
Uniform Delay, d1		34.0			35.7			8.9			8.7	
Progression Factor		1.00			1.00			0.29			1.00	
Incremental Delay, d2		1.4			6.5			0.6			1.3	
Delay (s)		35.4			42.1			3.2			10.0	
Level of Service		D			D			A			B	
Approach Delay (s)		35.4			42.1			3.2			10.0	
Approach LOS		D			D			A			B	

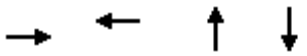
Intersection Summary			
HCM 2000 Control Delay	8.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	14	12	1028	30	12	1011
Future Volume (Veh/h)	14	12	1028	30	12	1011
Sign Control	Stop		Free			Free
Grade	0%		2%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	15	13	1082	32	13	1064
Pedestrians	41		3			9
Lane Width (ft)	12.0		12.0			12.0
Walking Speed (ft/s)	4.0		4.0			4.0
Percent Blockage	3		0			1
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			255			299
pX, platoon unblocked	0.88	0.81			0.81	
vC, conflicting volume	1700	607			1155	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	752	27			708	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	95	98			98	
cM capacity (veh/h)	288	804			689	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	28	721	393	368	709
Volume Left	15	0	0	13	0
Volume Right	13	0	32	0	0
cSH	410	1700	1700	689	1700
Volume to Capacity	0.07	0.42	0.23	0.02	0.42
Queue Length 95th (ft)	5	0	0	1	0
Control Delay (s)	14.4	0.0	0.0	0.6	0.0
Lane LOS	B			A	
Approach Delay (s)	14.4	0.0		0.2	
Approach LOS	B				

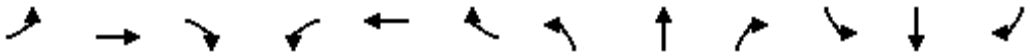
Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	53.0%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	220	11	1265	1050
v/c Ratio	0.75	0.04	0.90	0.52
Control Delay	47.1	23.4	26.3	7.4
Queue Delay	0.0	0.0	9.2	1.2
Total Delay	47.2	23.4	35.5	8.7
Queue Length 50th (ft)	115	5	273	118
Queue Length 95th (ft)	185	17	m218	163
Internal Link Dist (ft)	356	884	229	175
Turn Bay Length (ft)				
Base Capacity (vph)	393	403	1407	2018
Starvation Cap Reductn	0	0	134	79
Spillback Cap Reductn	3	0	0	690
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.56	0.03	0.99	0.79

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 (vph)	56	1	155	3	1	7	120	1092	2	3	945	60
Future Volume (vph)	56	1	155	3	1	7	120	1092	2	3	945	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		2%			2%			5%			0%	
Total Lost time (s)		2.0			2.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.97			0.98			1.00			1.00	
Flpb, ped/bikes		1.00			0.99			1.00			1.00	
Frt		0.90			0.91			1.00			0.99	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1236			1273			2984			3040	
Flt Permitted		0.93			0.95			0.67			0.95	
Satd. Flow (perm)		1160			1223			2022			2896	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	58	1	161	3	1	7	125	1138	2	3	984	62
RTOR Reduction (vph)	0	12	0	0	1	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	208	0	0	10	0	0	1265	0	0	1048	0
Confl. Peds. (#/hr)	13		30	30		13	55		26	26		55
Parking (#/hr)	0	0	0	0	0	0						
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		22.3			22.3			67.7			67.7	
Effective Green, g (s)		24.3			24.3			69.7			69.7	
Actuated g/C Ratio		0.24			0.24			0.70			0.70	
Clearance Time (s)		4.0			4.0			6.0			6.0	
Vehicle Extension (s)		1.0			1.0			1.0			1.0	
Lane Grp Cap (vph)		281			297			1409			2018	
v/s Ratio Prot												
v/s Ratio Perm		c0.18			0.01			c0.63			0.36	
v/c Ratio		0.74			0.03			0.90			0.52	
Uniform Delay, d1		34.9			28.9			12.3			7.2	
Progression Factor		1.00			1.00			1.77			0.78	
Incremental Delay, d2		8.5			0.0			1.0			0.8	
Delay (s)		43.4			28.9			22.8			6.4	
Level of Service		D			C			C			A	
Approach Delay (s)		43.4			28.9			22.8			6.4	
Approach LOS		D			C			C			A	

Intersection Summary			
HCM 2000 Control Delay	17.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	100.2%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

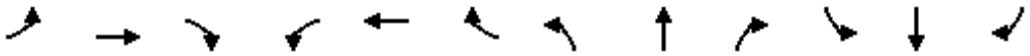
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	29	44	1281	1168
v/c Ratio	0.15	0.21	1.15	1.21
Control Delay	36.7	37.0	104.8	126.9
Queue Delay	0.0	388.4	0.2	0.5
Total Delay	36.7	425.4	105.0	127.4
Queue Length 50th (ft)	15	23	~525	~497
Queue Length 95th (ft)	41	54	m#556	#635
Internal Link Dist (ft)	251	135	463	229
Turn Bay Length (ft)				
Base Capacity (vph)	234	259	1115	967
Starvation Cap Reductn	0	0	0	87
Spillback Cap Reductn	0	257	47	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.12	22.00	1.20	1.33

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 (vph)	11	1	15	10	2	29	29	1163	25	34	1036	39
Future Volume (vph)	11	1	15	10	2	29	29	1163	25	34	1036	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	10	12	10	10	10	10	12
Grade (%)		0%			-5%			1%			-2%	
Total Lost time (s)		4.0			4.0			3.0			3.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.96			0.98			1.00			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.93			0.90			1.00			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1457			1508			2938			2791	
Flt Permitted		0.98			0.99			0.81			0.73	
Satd. Flow (perm)		1457			1508			2374			2055	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	12	1	16	11	2	31	31	1224	26	36	1091	41
RTOR Reduction (vph)	0	2	0	0	3	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	27	0	0	41	0	0	1281	0	0	1166	0
Confl. Peds. (#/hr)	7		30	30		7	90		25	25		90
Parking (#/hr)				0		0					0	
Turn Type	Split	NA		Split	NA		Perm	NA		Perm	NA	
Protected Phases	3	3		4	4			6			2	
Permitted Phases							6			2		
Actuated Green, G (s)		9.8			10.4			42.6			42.6	
Effective Green, g (s)		11.8			12.4			44.6			44.6	
Actuated g/C Ratio		0.12			0.12			0.45			0.45	
Clearance Time (s)		6.0			6.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			1.0			1.0	
Lane Grp Cap (vph)		171			186			1058			916	
v/s Ratio Prot		c0.02			c0.03							
v/s Ratio Perm								0.54			c0.57	
v/c Ratio		0.16			0.22			1.21			1.27	
Uniform Delay, d1		39.6			39.5			27.7			27.7	
Progression Factor		1.00			1.00			1.34			0.89	
Incremental Delay, d2		0.4			0.6			98.1			130.2	
Delay (s)		40.1			40.1			135.4			154.9	
Level of Service		D			D			F			F	
Approach Delay (s)		40.1			40.1			135.4			154.9	
Approach LOS		D			D			F			F	

Intersection Summary			
HCM 2000 Control Delay	141.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	77.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	297	103	1259	1034
v/c Ratio	1.10	0.46	0.96	0.77
Control Delay	123.0	41.0	33.3	30.0
Queue Delay	0.0	0.0	2.1	0.3
Total Delay	123.0	41.0	35.3	30.3
Queue Length 50th (ft)	~211	56	173	375
Queue Length 95th (ft)	#379	110	#294	m313
Internal Link Dist (ft)	524	236	236	463
Turn Bay Length (ft)				
Base Capacity (vph)	269	223	1307	1343
Starvation Cap Reductn	0	0	20	45
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.10	0.46	0.98	0.80

Intersection Summary

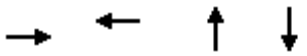
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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 (vph)	120	55	117	28	36	36	126	1066	41	35	895	83
Future Volume (vph)	120	55	117	28	36	36	126	1066	41	35	895	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	10	10	10	10	10	10	10	10	10
Grade (%)		-4%			-1%			2%			-1%	
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.97			1.00			0.99	
Flpb, ped/bikes		0.97			1.00			1.00			1.00	
Frt		0.95			0.95			0.99			0.99	
Flt Protected		0.98			0.99			0.99			1.00	
Satd. Flow (prot)		1485			1279			2882			2889	
Flt Permitted		0.82			0.81			0.62			0.86	
Satd. Flow (perm)		1239			1047			1806			2481	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	122	56	119	29	37	37	129	1088	42	36	913	85
RTOR Reduction (vph)	0	9	0	0	3	0	0	1	0	0	4	0
Lane Group Flow (vph)	0	288	0	0	100	0	0	1258	0	0	1030	0
Confl. Peds. (#/hr)	51		13	13		51	40		22	22		40
Heavy Vehicles (%)	10%	2%	10%	2%	2%	2%	10%	2%	2%	2%	3%	2%
Bus Blockages (#/hr)	14	14	14	0	0	0	0	0	0	0	0	0
Parking (#/hr)				0	0	0						
Turn Type	Perm	NA		Perm	NA		custom	NA		Perm	NA	
Protected Phases		8			4		5	2			6	
Permitted Phases	8			4			5			6		
Actuated Green, G (s)		19.0			19.0			65.0			52.0	
Effective Green, g (s)		21.0			21.0			67.0			54.0	
Actuated g/C Ratio		0.21			0.21			0.67			0.54	
Clearance Time (s)		7.0			7.0			6.0			6.0	
Lane Grp Cap (vph)		260			219			1317			1339	
v/s Ratio Prot								c0.10				
v/s Ratio Perm		c0.23			0.10			c0.54			0.42	
v/c Ratio		1.11			0.46			0.95			0.77	
Uniform Delay, d1		39.5			34.5			15.1			18.1	
Progression Factor		1.00			1.00			1.43			1.60	
Incremental Delay, d2		88.2			6.7			12.1			0.4	
Delay (s)		127.7			41.2			33.8			29.3	
Level of Service		F			D			C			C	
Approach Delay (s)		127.7			41.2			33.8			29.3	
Approach LOS		F			D			C			C	

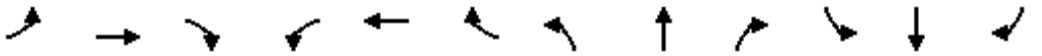
Intersection Summary			
HCM 2000 Control Delay	42.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	106.7%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	40	128	1157	1067
v/c Ratio	0.13	0.37	0.77	0.86
Control Delay	32.2	33.9	23.7	18.2
Queue Delay	0.3	1.2	0.0	0.0
Total Delay	32.5	35.1	23.7	18.2
Queue Length 50th (ft)	20	63	296	115
Queue Length 95th (ft)	49	119	386	m172
Internal Link Dist (ft)	495	513	594	236
Turn Bay Length (ft)				
Base Capacity (vph)	299	344	1497	1247
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	80	91	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.18	0.51	0.77	0.86

Intersection Summary

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



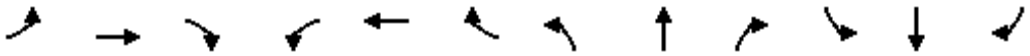
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	8	12	11	6	108	5	1107	11	141	881	14
Future Volume (vph)	19	8	12	11	6	108	5	1107	11	141	881	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	11	11	11	11	11	11
Grade (%)		-4%			-1%			1%			-2%	
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.96			0.88			1.00			1.00	
Flt Protected		0.98			1.00			1.00			0.99	
Satd. Flow (prot)		1566			1554			3025			2957	
Flt Permitted		0.85			0.98			0.95			0.55	
Satd. Flow (perm)		1361			1528			2876			1647	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	20	8	12	11	6	111	5	1141	11	145	908	14
RTOR Reduction (vph)	0	1	0	0	9	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	39	0	0	119	0	0	1157	0	0	1067	0
Confl. Peds. (#/hr)	3		11	11		3	33		28	28		33
Heavy Vehicles (%)	5%	2%	8%	2%	2%	6%	10%	3%	2%	3%	5%	2%
Bus Blockages (#/hr)	0	0	0	7	7	7	0	0	0	0	7	0
Parking (#/hr)	0	0	0									
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			4			6		5	2	
Permitted Phases	4			4			6			2		
Actuated Green, G (s)		20.0			20.0			50.0			65.0	
Effective Green, g (s)		22.0			22.0			52.0			67.0	
Actuated g/C Ratio		0.22			0.22			0.52			0.67	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		299			336			1495			1260	
v/s Ratio Prot											c0.10	
v/s Ratio Perm		0.03			c0.08			0.40			c0.47	
v/c Ratio		0.13			0.36			0.77			0.85	
Uniform Delay, d1		31.3			33.0			19.3			12.6	
Progression Factor		1.00			1.00			1.00			1.25	
Incremental Delay, d2		0.9			2.9			4.0			4.3	
Delay (s)		32.2			35.9			23.2			20.1	
Level of Service		C			D			C			C	
Approach Delay (s)		32.2			35.9			23.2			20.1	
Approach LOS		C			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	22.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	93.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	47	7	1	40	8	1
Future Volume (Veh/h)	47	7	1	40	8	1
Sign Control	Free			Free	Stop	
Grade	0%			-5%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	55	8	1	47	9	1
Pedestrians				1	15	
Lane Width (ft)				12.0	12.0	
Walking Speed (ft/s)				4.0	4.0	
Percent Blockage				0	1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	215					
pX, platoon unblocked						
vC, conflicting volume			78		123	75
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			78		123	75
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1501		861	973

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	63	48	10
Volume Left	0	1	9
Volume Right	8	0	1
cSH	1700	1501	871
Volume to Capacity	0.04	0.00	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.2	9.2
Lane LOS		A	A
Approach Delay (s)	0.0	0.2	9.2
Approach LOS			A

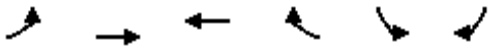
Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	17.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	3	26	9	2	30	4	2	6	4	4	3	2
Future Volume (vph)	3	26	9	2	30	4	2	6	4	4	3	2
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	4	31	11	2	35	5	2	7	5	5	4	2

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	46	42	14	11
Volume Left (vph)	4	2	2	5
Volume Right (vph)	11	5	5	2
Hadj (s)	-0.09	-0.03	-0.15	0.02
Departure Headway (s)	3.9	4.0	3.9	4.1
Degree Utilization, x	0.05	0.05	0.02	0.01
Capacity (veh/h)	909	895	881	852
Control Delay (s)	7.1	7.2	7.0	7.2
Approach Delay (s)	7.1	7.2	7.0	7.2
Approach LOS	A	A	A	A

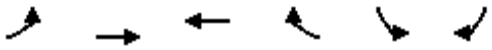
Intersection Summary				
Delay	7.1			
Level of Service	A			
Intersection Capacity Utilization	16.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	46	90	77	8	2	22
Future Volume (Veh/h)	46	90	77	8	2	22
Sign Control		Free	Free		Stop	
Grade		0%	-1%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	54	106	91	9	2	26
Pedestrians					45	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					4	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		316				
pX, platoon unblocked						
vC, conflicting volume	145				354	140
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	145				354	140
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				100	97
cM capacity (veh/h)	1383				595	873

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	160	100	28
Volume Left	54	0	2
Volume Right	0	9	26
cSH	1383	1700	845
Volume to Capacity	0.04	0.06	0.03
Queue Length 95th (ft)	3	0	3
Control Delay (s)	2.8	0.0	9.4
Lane LOS	A		A
Approach Delay (s)	2.8	0.0	9.4
Approach LOS			A

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	24.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	86	70	4	8	1
Future Volume (Veh/h)	5	86	70	4	8	1
Sign Control		Free	Free		Stop	
Grade		0%	-1%		0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	6	98	80	5	9	1
Pedestrians					34	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					3	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		671				
pX, platoon unblocked						
vC, conflicting volume	119				226	116
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	119				226	116
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1427				737	909

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	104	85	10
Volume Left	6	0	9
Volume Right	0	5	1
cSH	1427	1700	751
Volume to Capacity	0.00	0.05	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.5	0.0	9.9
Lane LOS	A		A
Approach Delay (s)	0.5	0.0	9.9
Approach LOS			A

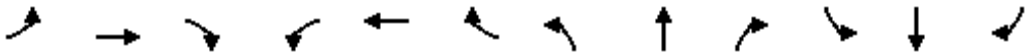
Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	20.5%	ICU Level of Service	A
Analysis Period (min)	15		

I. Future (2033) Conditions with Development – Mitigated Capacity Analysis Worksheet

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	58	85	1060	1023
v/c Ratio	0.20	0.42	0.58	0.56
Control Delay	34.7	42.4	3.2	10.2
Queue Delay	0.0	0.0	0.3	0.0
Total Delay	34.7	42.4	3.5	10.2
Queue Length 50th (ft)	30	47	18	161
Queue Length 95th (ft)	66	96	m20	214
Internal Link Dist (ft)	467	571	219	744
Turn Bay Length (ft)				
Base Capacity (vph)	297	200	1820	1814
Starvation Cap Reductn	0	0	255	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.20	0.42	0.68	0.56

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 (vph)	20	11	26	54	10	20	26	945	68	32	940	30
Future Volume (vph)	20	11	26	54	10	20	26	945	68	32	940	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	9	9	9	11	11	11	11	11	11
Grade (%)		-7%			-4%			2%			-2%	
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.98			0.99			0.99			1.00	
Flpb, ped/bikes		0.99			0.99			1.00			1.00	
Frt		0.94			0.97			0.99			1.00	
Flt Protected		0.98			0.97			1.00			1.00	
Satd. Flow (prot)		1709			1265			2993			3052	
Flt Permitted		0.89			0.80			0.91			0.89	
Satd. Flow (perm)		1553			1046			2715			2708	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	20	11	27	55	10	20	27	964	69	33	959	31
RTOR Reduction (vph)	0	2	0	0	2	0	0	2	0	0	1	0
Lane Group Flow (vph)	0	56	0	0	83	0	0	1058	0	0	1022	0
Confl. Peds. (#/hr)	24		14	14		24	23		27	27		23
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Parking (#/hr)				0	0	0						
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		17.0			17.0			65.0			65.0	
Effective Green, g (s)		19.0			19.0			67.0			67.0	
Actuated g/C Ratio		0.19			0.19			0.67			0.67	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		295			198			1819			1814	
v/s Ratio Prot												
v/s Ratio Perm		0.04			c0.08			c0.39			0.38	
v/c Ratio		0.19			0.42			0.58			0.56	
Uniform Delay, d1		34.0			35.7			8.9			8.7	
Progression Factor		1.00			1.00			0.29			1.00	
Incremental Delay, d2		1.4			6.5			0.6			1.3	
Delay (s)		35.4			42.1			3.2			10.0	
Level of Service		D			D			A			B	
Approach Delay (s)		35.4			42.1			3.2			10.0	
Approach LOS		D			D			A			B	

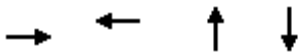
Intersection Summary			
HCM 2000 Control Delay	8.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	14	12	1028	30	12	1011
Future Volume (Veh/h)	14	12	1028	30	12	1011
Sign Control	Stop		Free			Free
Grade	0%		2%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	15	13	1082	32	13	1064
Pedestrians	41		3			9
Lane Width (ft)	12.0		12.0			12.0
Walking Speed (ft/s)	4.0		4.0			4.0
Percent Blockage	3		0			1
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			255			299
pX, platoon unblocked	0.88	0.81			0.81	
vC, conflicting volume	1700	607			1155	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	752	27			708	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	95	98			98	
cM capacity (veh/h)	288	804			689	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	28	721	393	368	709
Volume Left	15	0	0	13	0
Volume Right	13	0	32	0	0
cSH	410	1700	1700	689	1700
Volume to Capacity	0.07	0.42	0.23	0.02	0.42
Queue Length 95th (ft)	5	0	0	1	0
Control Delay (s)	14.4	0.0	0.0	0.6	0.0
Lane LOS	B			A	
Approach Delay (s)	14.4	0.0		0.2	
Approach LOS	B				

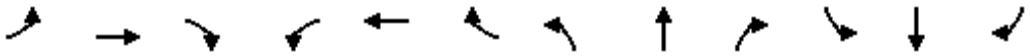
Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	53.0%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	220	11	1265	1050
v/c Ratio	0.75	0.04	0.90	0.52
Control Delay	47.1	23.4	26.3	7.4
Queue Delay	0.0	0.0	9.2	1.2
Total Delay	47.2	23.4	35.5	8.7
Queue Length 50th (ft)	115	5	273	118
Queue Length 95th (ft)	185	17	m218	163
Internal Link Dist (ft)	356	884	229	175
Turn Bay Length (ft)				
Base Capacity (vph)	393	403	1407	2018
Starvation Cap Reductn	0	0	134	79
Spillback Cap Reductn	3	0	0	690
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.56	0.03	0.99	0.79

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 (vph)	56	1	155	3	1	7	120	1092	2	3	945	60
Future Volume (vph)	56	1	155	3	1	7	120	1092	2	3	945	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		2%			2%			5%			0%	
Total Lost time (s)		2.0			2.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.97			0.98			1.00			1.00	
Flpb, ped/bikes		1.00			0.99			1.00			1.00	
Frt		0.90			0.91			1.00			0.99	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1236			1273			2984			3040	
Flt Permitted		0.93			0.95			0.67			0.95	
Satd. Flow (perm)		1160			1223			2022			2896	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	58	1	161	3	1	7	125	1138	2	3	984	62
RTOR Reduction (vph)	0	12	0	0	1	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	208	0	0	10	0	0	1265	0	0	1048	0
Confl. Peds. (#/hr)	13		30	30		13	55		26	26		55
Parking (#/hr)	0	0	0	0	0	0						
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		22.3			22.3			67.7			67.7	
Effective Green, g (s)		24.3			24.3			69.7			69.7	
Actuated g/C Ratio		0.24			0.24			0.70			0.70	
Clearance Time (s)		4.0			4.0			6.0			6.0	
Vehicle Extension (s)		1.0			1.0			1.0			1.0	
Lane Grp Cap (vph)		281			297			1409			2018	
v/s Ratio Prot												
v/s Ratio Perm		c0.18			0.01			c0.63			0.36	
v/c Ratio		0.74			0.03			0.90			0.52	
Uniform Delay, d1		34.9			28.9			12.3			7.2	
Progression Factor		1.00			1.00			1.77			0.78	
Incremental Delay, d2		8.5			0.0			1.0			0.8	
Delay (s)		43.4			28.9			22.8			6.4	
Level of Service		D			C			C			A	
Approach Delay (s)		43.4			28.9			22.8			6.4	
Approach LOS		D			C			C			A	

Intersection Summary			
HCM 2000 Control Delay	17.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	100.2%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

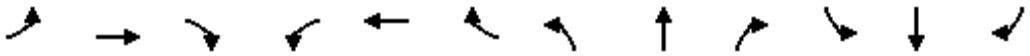
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	29	44	1281	1168
v/c Ratio	0.15	0.21	1.15	1.21
Control Delay	36.7	37.0	104.4	126.9
Queue Delay	0.0	388.4	0.2	0.5
Total Delay	36.7	425.4	104.6	127.4
Queue Length 50th (ft)	15	23	~524	~497
Queue Length 95th (ft)	41	54	m#544	#635
Internal Link Dist (ft)	251	135	463	229
Turn Bay Length (ft)				
Base Capacity (vph)	234	259	1115	967
Starvation Cap Reductn	0	0	0	87
Spillback Cap Reductn	0	257	47	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.12	22.00	1.20	1.33

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 (vph)	11	1	15	10	2	29	29	1163	25	34	1036	39
Future Volume (vph)	11	1	15	10	2	29	29	1163	25	34	1036	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	10	12	10	10	10	10	12
Grade (%)		0%			-5%			1%			-2%	
Total Lost time (s)		4.0			4.0			3.0			3.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.96			0.98			1.00			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.93			0.90			1.00			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1457			1508			2938			2791	
Flt Permitted		0.98			0.99			0.81			0.73	
Satd. Flow (perm)		1457			1508			2374			2055	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	12	1	16	11	2	31	31	1224	26	36	1091	41
RTOR Reduction (vph)	0	2	0	0	3	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	27	0	0	41	0	0	1281	0	0	1166	0
Confl. Peds. (#/hr)	7		30	30		7	90		25	25		90
Parking (#/hr)				0		0					0	
Turn Type	Split	NA		Split	NA		Perm	NA		Perm	NA	
Protected Phases	3	3		4	4			6			2	
Permitted Phases							6			2		
Actuated Green, G (s)		9.8			10.4			42.6			42.6	
Effective Green, g (s)		11.8			12.4			44.6			44.6	
Actuated g/C Ratio		0.12			0.12			0.45			0.45	
Clearance Time (s)		6.0			6.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			1.0			1.0	
Lane Grp Cap (vph)		171			186			1058			916	
v/s Ratio Prot		c0.02			c0.03							
v/s Ratio Perm								0.54			c0.57	
v/c Ratio		0.16			0.22			1.21			1.27	
Uniform Delay, d1		39.6			39.5			27.7			27.7	
Progression Factor		1.00			1.00			1.33			0.89	
Incremental Delay, d2		0.4			0.6			98.0			130.2	
Delay (s)		40.1			40.1			134.9			154.9	
Level of Service		D			D			F			F	
Approach Delay (s)		40.1			40.1			134.9			154.9	
Approach LOS		D			D			F			F	

Intersection Summary			
HCM 2000 Control Delay	141.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	77.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

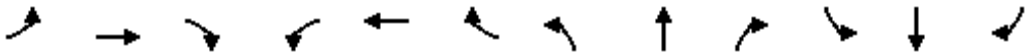
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	297	103	1259	1034
v/c Ratio	1.06	0.44	0.98	0.78
Control Delay	107.5	39.1	37.2	31.0
Queue Delay	0.0	0.0	0.3	0.1
Total Delay	107.5	39.1	37.4	31.2
Queue Length 50th (ft)	~203	55	175	375
Queue Length 95th (ft)	#370	108	#305	m313
Internal Link Dist (ft)	524	236	236	463
Turn Bay Length (ft)				
Base Capacity (vph)	281	236	1282	1318
Starvation Cap Reductn	0	0	2	20
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.06	0.44	0.98	0.80

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

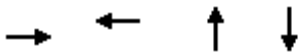
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

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 (vph)	120	55	117	28	36	36	126	1066	41	35	895	83
Future Volume (vph)	120	55	117	28	36	36	126	1066	41	35	895	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	10	10	10	10	10	10	10	10	10
Grade (%)		-4%			-1%			2%			-1%	
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.97			1.00			0.99	
Flpb, ped/bikes		0.97			1.00			1.00			1.00	
Frt		0.95			0.95			0.99			0.99	
Flt Protected		0.98			0.99			0.99			1.00	
Satd. Flow (prot)		1485			1279			2882			2889	
Flt Permitted		0.82			0.82			0.62			0.86	
Satd. Flow (perm)		1242			1058			1795			2480	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	122	56	119	29	37	37	129	1088	42	36	913	85
RTOR Reduction (vph)	0	9	0	0	3	0	0	1	0	0	4	0
Lane Group Flow (vph)	0	288	0	0	100	0	0	1258	0	0	1030	0
Confl. Peds. (#/hr)	51		13	13		51	40		22	22		40
Heavy Vehicles (%)	10%	2%	10%	2%	2%	2%	10%	2%	2%	2%	3%	2%
Bus Blockages (#/hr)	14	14	14	0	0	0	0	0	0	0	0	0
Parking (#/hr)				0	0	0						
Turn Type	Perm	NA		Perm	NA		custom	NA		Perm	NA	
Protected Phases		8			4		5	2			6	
Permitted Phases	8			4			5			6		
Actuated Green, G (s)		20.0			20.0			64.0			51.0	
Effective Green, g (s)		22.0			22.0			66.0			53.0	
Actuated g/C Ratio		0.22			0.22			0.66			0.53	
Clearance Time (s)		7.0			7.0			6.0			6.0	
Lane Grp Cap (vph)		273			232			1293			1314	
v/s Ratio Prot								c0.10				
v/s Ratio Perm		c0.23			0.09			c0.54			0.42	
v/c Ratio		1.06			0.43			0.97			0.78	
Uniform Delay, d1		39.0			33.6			16.1			18.9	
Progression Factor		1.00			1.00			1.37			1.58	
Incremental Delay, d2		70.1			5.7			15.0			0.4	
Delay (s)		109.1			39.3			37.1			30.3	
Level of Service		F			D			D			C	
Approach Delay (s)		109.1			39.3			37.1			30.3	
Approach LOS		F			D			D			C	

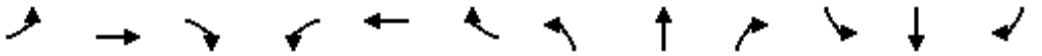
Intersection Summary			
HCM 2000 Control Delay	42.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	106.7%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	40	128	1157	1067
v/c Ratio	0.13	0.37	0.77	0.86
Control Delay	32.2	33.9	23.7	18.6
Queue Delay	0.3	1.3	0.0	0.2
Total Delay	32.5	35.2	23.7	18.7
Queue Length 50th (ft)	20	63	296	122
Queue Length 95th (ft)	49	119	386	m180
Internal Link Dist (ft)	495	513	594	236
Turn Bay Length (ft)				
Base Capacity (vph)	299	344	1497	1247
Starvation Cap Reductn	0	0	0	11
Spillback Cap Reductn	82	93	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.18	0.51	0.77	0.86

Intersection Summary

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



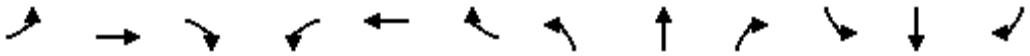
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	8	12	11	6	108	5	1107	11	141	881	14
Future Volume (vph)	19	8	12	11	6	108	5	1107	11	141	881	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	11	11	11	11	11	11
Grade (%)		-4%			-1%			1%			-2%	
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.96			0.88			1.00			1.00	
Flt Protected		0.98			1.00			1.00			0.99	
Satd. Flow (prot)		1566			1554			3025			2957	
Flt Permitted		0.85			0.98			0.95			0.55	
Satd. Flow (perm)		1361			1528			2876			1647	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	20	8	12	11	6	111	5	1141	11	145	908	14
RTOR Reduction (vph)	0	1	0	0	9	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	39	0	0	119	0	0	1157	0	0	1067	0
Confl. Peds. (#/hr)	3		11	11		3	33		28	28		33
Heavy Vehicles (%)	5%	2%	8%	2%	2%	6%	10%	3%	2%	3%	5%	2%
Bus Blockages (#/hr)	0	0	0	7	7	7	0	0	0	0	7	0
Parking (#/hr)	0	0	0									
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			4			6		5	2	
Permitted Phases	4			4			6			2		
Actuated Green, G (s)		20.0			20.0			50.0			65.0	
Effective Green, g (s)		22.0			22.0			52.0			67.0	
Actuated g/C Ratio		0.22			0.22			0.52			0.67	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		299			336			1495			1260	
v/s Ratio Prot											c0.10	
v/s Ratio Perm		0.03			c0.08			0.40			c0.47	
v/c Ratio		0.13			0.36			0.77			0.85	
Uniform Delay, d1		31.3			33.0			19.3			12.6	
Progression Factor		1.00			1.00			1.00			1.29	
Incremental Delay, d2		0.9			2.9			4.0			4.3	
Delay (s)		32.2			35.9			23.2			20.5	
Level of Service		C			D			C			C	
Approach Delay (s)		32.2			35.9			23.2			20.5	
Approach LOS		C			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	22.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	93.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	47	7	1	40	8	1
Future Volume (Veh/h)	47	7	1	40	8	1
Sign Control	Free			Free	Stop	
Grade	0%			-5%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	55	8	1	47	9	1
Pedestrians				1	15	
Lane Width (ft)				12.0	12.0	
Walking Speed (ft/s)				4.0	4.0	
Percent Blockage				0	1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	215					
pX, platoon unblocked						
vC, conflicting volume			78		123	75
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			78		123	75
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1501		861	973

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	63	48	10
Volume Left	0	1	9
Volume Right	8	0	1
cSH	1700	1501	871
Volume to Capacity	0.04	0.00	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.2	9.2
Lane LOS		A	A
Approach Delay (s)	0.0	0.2	9.2
Approach LOS			A

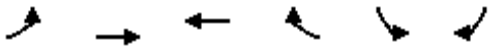
Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	17.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	3	26	9	2	30	4	2	6	4	4	3	2
Future Volume (vph)	3	26	9	2	30	4	2	6	4	4	3	2
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	4	31	11	2	35	5	2	7	5	5	4	2

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	46	42	14	11
Volume Left (vph)	4	2	2	5
Volume Right (vph)	11	5	5	2
Hadj (s)	-0.09	-0.03	-0.15	0.02
Departure Headway (s)	3.9	4.0	3.9	4.1
Degree Utilization, x	0.05	0.05	0.02	0.01
Capacity (veh/h)	909	895	881	852
Control Delay (s)	7.1	7.2	7.0	7.2
Approach Delay (s)	7.1	7.2	7.0	7.2
Approach LOS	A	A	A	A

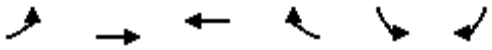
Intersection Summary				
Delay			7.1	
Level of Service			A	
Intersection Capacity Utilization			16.7%	ICU Level of Service
Analysis Period (min)			15	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	46	90	77	8	2	22
Future Volume (Veh/h)	46	90	77	8	2	22
Sign Control		Free	Free		Stop	
Grade		0%	-1%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	54	106	91	9	2	26
Pedestrians					45	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					4	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		316				
pX, platoon unblocked						
vC, conflicting volume	145				354	140
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	145				354	140
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				100	97
cM capacity (veh/h)	1383				595	873

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	160	100	28
Volume Left	54	0	2
Volume Right	0	9	26
cSH	1383	1700	845
Volume to Capacity	0.04	0.06	0.03
Queue Length 95th (ft)	3	0	3
Control Delay (s)	2.8	0.0	9.4
Lane LOS	A		A
Approach Delay (s)	2.8	0.0	9.4
Approach LOS			A

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	24.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	86	70	4	8	1
Future Volume (Veh/h)	5	86	70	4	8	1
Sign Control		Free	Free		Stop	
Grade		0%	-1%		0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	6	98	80	5	9	1
Pedestrians					34	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					3	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		671				
pX, platoon unblocked						
vC, conflicting volume	119				226	116
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	119				226	116
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1427				737	909

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	104	85	10
Volume Left	6	0	9
Volume Right	0	5	1
cSH	1427	1700	751
Volume to Capacity	0.00	0.05	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.5	0.0	9.9
Lane LOS	A		A
Approach Delay (s)	0.5	0.0	9.9
Approach LOS			A

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	20.5%	ICU Level of Service	A
Analysis Period (min)	15		