

NORTHVILLE DOWNTOWN PEDESTRIAN STUDY

NORTHVILLE, WAYNE COUNTY, MICHIGAN

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REFERENCES

- AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO). (2018). *A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS*. WASHINGTON DC.
- FEDERAL HIGHWAY ADMINISTRATION, MICHIGAN DEPARTMENT OF TRANSPORTATION, MICHIGAN STATE POLICE. (2011). *MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES*.
- NATIONAL RESEARCH COUNCIL (U.S.) TRANSPORTATION RESEARCH BOARD. (2022). *HIGHWAY CAPACITY MANUAL (HCM)*. WASHINGTON, D.C.: TRANSPORTATION RESEARCH BOARD.

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- A. CRASH ANALYSIS EXHIBITS, RECOMMENDED MITIGATION MEASURES
- B. EXISTING INFRASTRUCTURE SUMMARY
- C. BACKGROUND DATA

1 INTRODUCTION

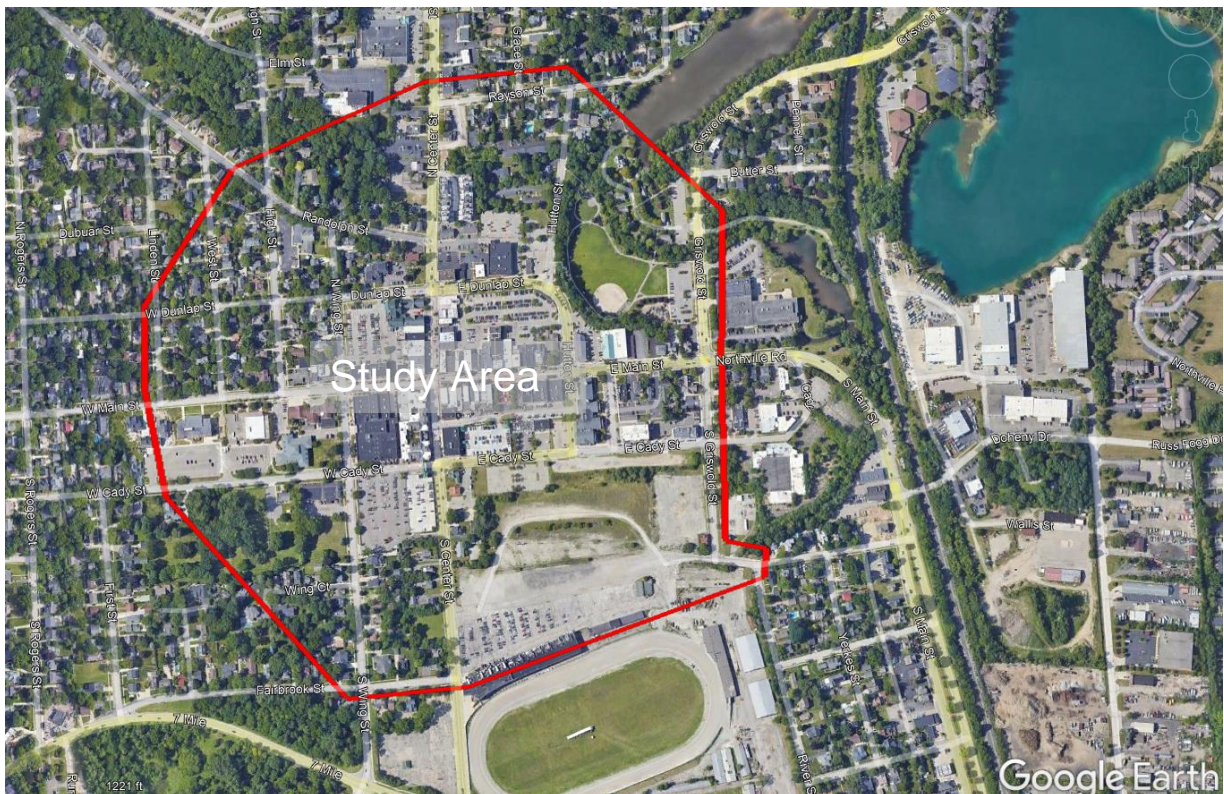
Fleis & VandenBrink Engineering, Inc. (F&V), in partnership with the City of Northville, completed a downtown pedestrian study in Northville, Michigan. The City of Northville has recently adopted the seasonal closure (April to November) two sections of roadway in the downtown to vehicular traffic: Center Street from Main Street to Dunlap Street, and Main Street from Center Street to Hutton Street, creating pedestrian only zones. The creation of the downtown pedestrian zones has increased pedestrian activity in downtown Northville. The purpose of this study is to provide an evaluation of the existing pedestrian facilities and provide recommendations to ensure the safety for all road users. The study includes a summary of the baseline conditions of the existing multi-modal facilities, including sidewalks, pathways and crossings located within the study area. Upon review of the existing conditions, recommendations are proposed to enhance pedestrian facilities. The scope of work for this study includes a comprehensive summary of the field observations and findings, analysis and mitigation recommendations including:

- Existing Site Conditions and Safety Features
- Crash History
- Field Review Analysis
- Recommendations and Mitigation Strategies

1.1 STUDY LOCATION

The Downtown Pedestrian Study limits are shown in **Figure 1**. This area encompasses approximately a ¼ mile radius in the downtown area. This area is characterized as a low-speed area with both residential and commercial uses. There is pedestrian and bicycle usage with a mix of ages and abilities using the roadway network. There is existing pedestrian and bicycle infrastructure throughout the downtown area and within some of the residential areas. However, bicycles are prohibited from riding within the pedestrian only areas within the downtown. Both on-street and off-street parking is provided in the downtown area and on-street parking is provided in the neighborhoods. Additional infrastructure information is shown on the attached exhibits in **Appendix B**.

FIGURE 1: STUDY LOCATION MAP



1.2 BACKGROUND DATA

Resource materials were obtained or collected by F&V or provided by the City of Northville. These materials, along with observations made in the field, provided the foundation for the evaluation. Additional materials are included in **Appendix B and C**.

Community Feedback

- The F&V / MKSK project team conducted a Community Engagement meeting in December 2022 to obtain feedback from the community regarding their concerns with the existing pedestrian infrastructure and key areas for review and consideration. The community was able to provide their comments both in person and via an online platform.

Field Data Collection

- F&V data collected existing pedestrian and bike infrastructure data including signing, striping, and ADA facilities. An ARCGIS database of this information was created as part of this study and will be provided to the City for use in identifying and prioritizing recommended improvements.

Vehicle/Pedestrian Volumes

- F&V collected vehicle and pedestrian counts in 2021, this data was used to evaluate the impact of the downtown street closures on both pedestrian and vehicular activity.

Safety Evaluation

- The historical crash data was reviewed throughout the downtown areas, with focus primarily on the intersections and pedestrian crossings within the study network. Additionally, the existing signalized intersections were evaluated to determine if the signals should remain or be removed and determine if additional intersection or safety improvements should be implemented

Proposed Developments

- The pedestrian and traffic impacts and proposed mitigation measures from the Northville Downs development and the Foundry Flask projects were considered as part of this evaluation

Mitigation measures were identified for different intersections of the study area and rated based on cost (low, medium, high) and scheduling (short-term, mid-term, long-term).

Cost Category		Scheduling Category	
\$	<\$10,000	Short Term	<1 Year
\$\$	\$10,000-\$250,000	Mid-Term	1 to 5 Years
\$\$\$	>\$250,000	Long Term	>5 Years

2 SAFETY ANALYSIS

2.1 CRASH SUMMARY

The crash data used in the project was obtained from Michigan Traffic Crash Facts (MTCF) website. The data includes midblock and intersection related pedestrian and bicycle crashes in the study area, for period between January 1, 2017 and April 1, 2023. **Table 1** and **Table 2** summarize pedestrian and bicycle crashes and the worst injuries, which occurred as a result of those crashes. The information from the crash history was analyzed to identify any patterns of crashes, related safety concerns, and to determine improvements to safety.

TABLE 1: CRASH LOCATION SUMMARY TABLE

Intersection / Road Segment	Pedestrian Crash	Bicycle Crash	Total Crashes
Center Street & Randolph Street	1	1	2
Center Street & Dunlap Street	2	1	3
Center Street (between Main Street and Dunlap Street)	0	1	1
Center Street & Main Street	1	0	1
Main Street & Hutton Street	1	0	1
Main Street & Griswold Street	1	0	1
Lot #4 & Cady Street	1	0	1
Total	7	3	10

TABLE 2: CRASHES WITH INJURIES SUMMARY

Worst Injury of Crash			
Type	Description	Number of Crashes with Injury	% of Crashes
K	Fatality	0	0%
"A" Injuries	Incapacitating Injury	1	10%
"B" Injuries	Non-incapacitating, Evident Injury	5	50%
"C" Injuries	Possible Injury	2	20%
PDO	No Injury, Property Damage Only	2	20%
Total		10	100%

2.2 PEDESTRIAN AND BIKE CRASH DETAILS

Further review of the pedestrian and bicycle crashes are summarized below, and the crash locations are shown on the attached exhibits in **Appendix A**.

Center Street & Randolph Street: Two crashes were reported at this intersection; one (1) pedestrian and one (1) bicycle crash.

- The pedestrian was hit by a southbound vehicle turning right while crossing the west leg of Randolph Street.
- The bicyclist was hit by a southbound vehicle turning right while making a left-turn from Randolph Street.

Center Street & Dunlap Street: Three crashes were reported at this intersection, including two (2) pedestrian crashes and one (1) bicycle crash.

- One pedestrian crash occurred on Dunlap Street, 200 ft east Center Street, where a construction worker was struck at the edge of a construction zone.
- One pedestrian crash occurred when a northbound right-turn vehicle hit a pedestrian crossing the east leg of the intersection.
- The bicycle crash occurred when a vehicle making a southbound right-turn hit a bicyclist crossing the north leg of the intersection.

Center Street Road (Main Street to Dunlap Street)

- A bicyclist was sideswiped by a southbound vehicle while traveling south on Center Street between Main Street and Dunlap Street.

Center Street & Main Street

- One pedestrian crash occurred when a vehicle traveling north on Center Street hit a pedestrian crossing the south leg of the intersection.

Main Street & Hutton Street

- One pedestrian crash occurred when a vehicle making a southbound left-turn hit a pedestrian crossing the east leg of the intersection.

Main Street & Griswold Street

- One pedestrian crash occurred when a vehicle making a southbound left-turn hit two pedestrians crossing the east leg of the intersection.

Lot # 4 & W. Cady Street

- One pedestrian crash occurred when a vehicle entering the upper level of Lot #4 made a southbound left-turn and hit a pedestrian walking through the parking lot.

2.3 SUMMARY

- The results of the crash analysis indicate that additional safety measures should be considered, including: Special Emphasis crosswalks and Leading Pedestrian Intervals which are further detailed herein.

3 COMMUNITY FEEDBACK

The community feedback provided varied from general thoughts on the downtown infrastructure to specific recommendations for mitigation measures. The data was collected through numerous formats, including an online forum powered through Social Pinpoint comment cards and a map for highlighting comments at City Hall. The public comment period was open for 30 days after kick-off at the community engagement meeting held at City Hall on December 15, 2022. There were over 250 comments provided both online and via comment cards.

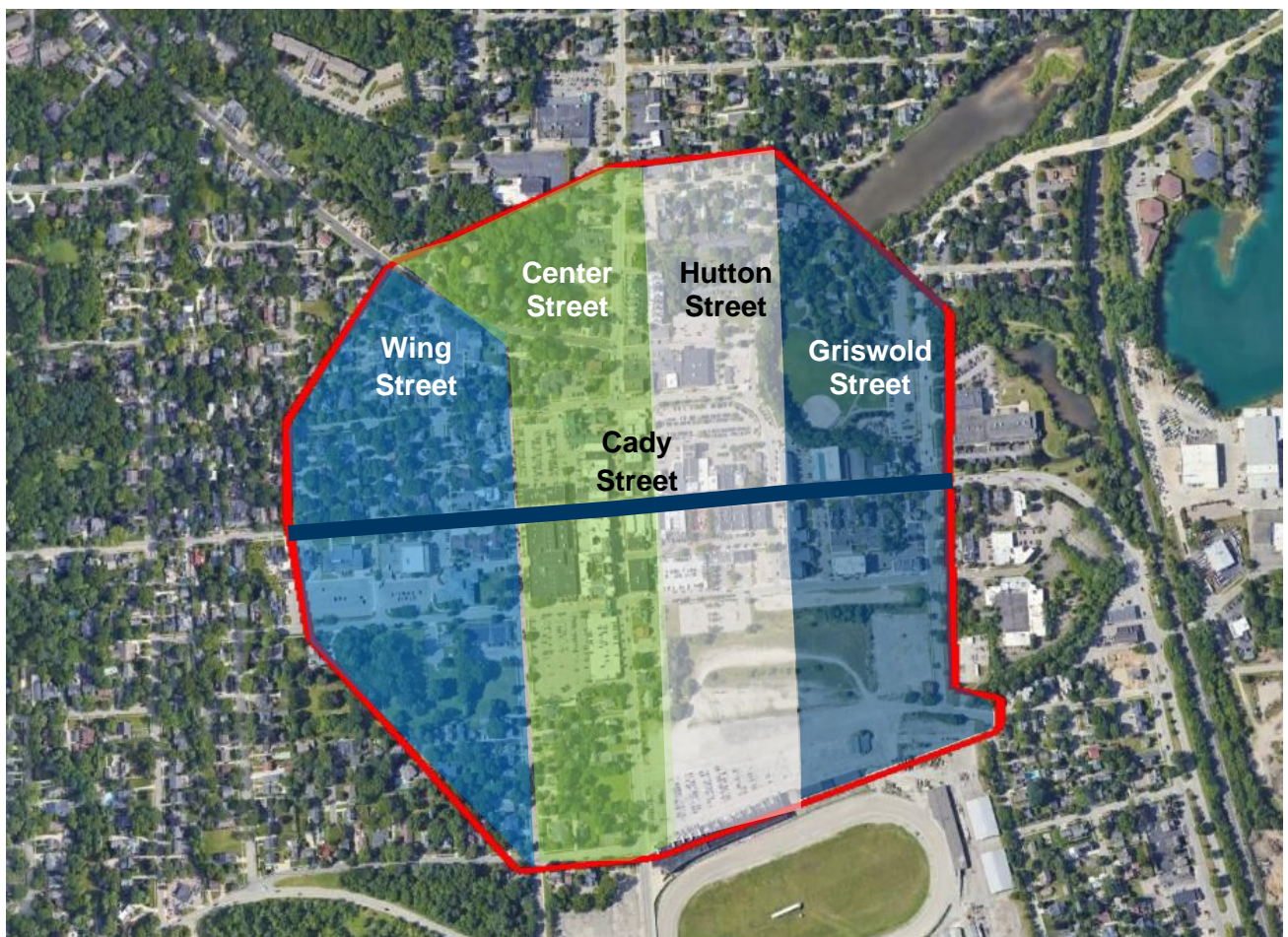
The project team also met with the Northville Mobility Network Team and City Staff to discuss the public comments received and review the preliminary results and recommendations of the study. The feedback and data received were used to help guide the analysis and recommendations included herein.

3.1 DOWNTOWN PEDESTRIAN ANALYSIS

The Downtown Pedestrian Analysis was separated into four (4) focus corridors:

- Wing Street Neighborhoods (Wing Street, Main Street, Randolph Street)
- Center Street Corridor
- Hutton Street Corridor
- Griswold Street Corridor
- Cady Street Corridor

FIGURE 2: STUDY CORRIDOR LOCATION MAP



4 WING STREET CORRIDOR

4.1 PEDESTRIAN CROSSINGS

Wing Street provides pedestrian crossings at all of the cross-street intersections, with the exception of the Wing Court intersection.

Wing Street, between Cady Street and Fairbrook Street, an existing block length of approximately 900 feet. Sidewalk is provided on both sides of Wing Street, but there is no east/west connectivity along this section. It was noted by the Mobility Network Team that there is a desire for additional east/west pedestrian crossings. Review of the sections roadway shows the potential to add crossings at two locations: Wing Court intersection and Mid-Block at Municipal Parking Lot driveway. The addition of these crosswalks will provide additional connectivity along this corridor. Both crosswalks can also be provided with curb extensions at this intersection to reduce the crossing distance.

Additionally, it was noted that there are a significant number of pedestrians who utilize the post-office stairway located approximately 40-ft south of the Cady Street intersection. The pedestrians cross between the parking lot on the east side of Wing Street, through the on-street parking to access the stairway adjacent to the sidewalk and the entrance to the post-office. It is recommended that these stairs be removed to reduce the potential for pedestrians to cross at this location and encourage pedestrians to utilize the adjacent marked crossings.

- **Recommendations**
 - **Wing Court: Marked Pedestrian Crossing (one-side of intersection), Special Emphasis Crosswalk, Curb Extensions**
 - **Mid-Block Crossing at Parking Lot Drive: Marked Pedestrian Crossing, Special Emphasis Crosswalk, Curb Extensions**

4.2 CADY STREET & WING STREET

This intersection currently has All-Way Stop control and pedestrian facilities on all legs of the intersection. Marked crosswalks are currently provided at this intersection. On-Street parking is provided on all roadways adjacent to this intersection. This provides an opportunity to add curb extensions to reduce the crossing distance and increase pedestrian visibility at this intersection.

- **Recommendations: Curb Extensions**

4.3 FAIRBROOK STREET & WING STREET

This intersection currently has All-Way Stop control and pedestrian facilities on all legs of the intersection. To increase compliance and pedestrian awareness at this intersection, special emphasis crosswalks are recommended at the intersection. Curb extensions on Center Street and Fairbrook Street could also be implemented to reduce the crossing distance, increase visibility of pedestrians at this intersection and provide increased delineation of the parking lane from the through lane.

- **Recommendations: Special Emphasis Crosswalks, Curb extensions**

5 MAIN STREET CORRIDOR

5.1 MAIN STREET & LINDEN STREET

On-Street parking is currently provided on Main Street within the intersection influence area of the Linden Street intersection. The Michigan Vehicle Code (Section 257.674) prohibits parking within an intersection. Therefore, the parallel parking on Main Street, opposite Linden Street should be removed. Eliminating this parking provides an opportunity to provide a larger curb extension on the south side of Main Street and add a pedestrian crossing at the Linden Street intersection.

- **Recommendation: Prohibit parking within the intersection, provide curb extension on south side, add Pedestrian Crossing**

5.2 MAIN STREET & WEST STREET

On-Street parking is currently provided on Main Street within the intersection influence area of the West Street intersection. The Michigan Vehicle Code (Section 257.674) prohibits parking within an intersection. Therefore, the parallel parking on Main Street, opposite West Street should be removed. Eliminating this parking provides an opportunity to provide a larger curb extension on the south side of Main Street. There is an existing pedestrian crossing that would benefit from the reduced crossing distance.

- **Recommendation: Prohibit parking within intersection, provide curb extension on south side.**

5.3 MAIN STREET & WING STREET

The current pedestrian infrastructure includes sidewalks and crosswalks at all intersections. This intersection currently provides marked crosswalks on all legs of this intersection and the east leg provides curb extensions. There is no parking on the west leg of the intersection adjacent to City Hall and the Fire Station. However, on-street parking is provided on the south and north legs of the intersection, which provides the opportunity for the addition of curb extensions at this intersection.

- **Recommendations: Curb Extensions**

6 RANDOLPH STREET CORRIDOR

6.1 RANDOLPH STREET & LINDEN STREET

The Linden Street approach at Randolph Street is STOP controlled. There is an east/west pedestrian crossing on the south side of this intersection. The addition of a Stop Bar and a Special Emphasis Crossing will increase pedestrian awareness at this intersection.

- **Recommendation: Stop Bar, Special Emphasis Crossing**

6.2 RANDOLPH STREET & WEST STREET

The Wing Street approach at Randolph Street is STOP controlled. There is an east/west crossing on the south leg of the intersection. The addition of a Stop Bar and a Special Emphasis Crossing will increase pedestrian awareness at this intersection.

- **Recommendation: Stop Bar, Special Emphasis Crossing**

6.3 RANDOLPH STREET & WING STREET

The Wing Street approach at Randolph Street is STOP controlled. There is an east/west pedestrian crossing on the south side of this intersection. The addition of a Stop Bar and a Special Emphasis Crossing will increase pedestrian awareness at this intersection.

- **Recommendation: Stop Bar, Special Emphasis Crossing**

7 CENTER STREET CORRIDOR

7.1 RAYSON STREET & CENTER STREET

Rayson Street is north of the downtown area and it was noted that during special events, Rayson Street is frequently utilized for on-street parking. There is no crossing for pedestrians on Center Street at Rayson Street. The addition of a Special Emphasis crosswalk is shown in **Figure 4**. The crosswalk would connect with the existing approach apron on the west side of Center Street and the existing sidewalk on the east side. By installing a crosswalk across Center Street, vehicles will be more aware of the potential for pedestrians to be crossing the street.

- **Recommendation: Special Emphasis crosswalk with Advance Crosswalk Signing**

7.2 RANDOLPH STREET & CENTER STREET

Randolph Street is just north of downtown and increased pedestrian and bicycle activity has been observed at this intersection due to the proximity to the downtown area, the adjacent CVS on Dunlap Street east of Center Street. Both a pedestrian and bicycle were hit by a vehicle while trying to cross the road at this intersection. Currently, there is a crosswalk on Randolph Street, but no crosswalk on Center Street. It is recommended to provide a crossing at this location with a Special Emphasis crosswalk with a Rectangular Rapid Flashing Beacon (RRFB).

- **Recommendation: Special Emphasis crosswalk with RRFB**

7.3 DUNLAP STREET & CENTER STREET

The south leg of this intersection was closed, and the signalized intersection was turned to flash-mode. The current signal operations do not provide any protected crossing for pedestrians. There was one bicycle crash at this intersection that occurred when a bicycle attempted to cross the north leg of the intersection. There was a high volume of pedestrians recorded at this intersection, with 183 pedestrians during the four (4) hour peak periods between 7:00 AM-9:00 AM and 4:00 PM-6:00 PM.

Recommendations for this intersection include reactivating the existing signal to provide protected crossings for the pedestrians. The addition of a Leading Pedestrian Interval (LPI) can also be implemented at this intersection with signal timing adjustments to increase pedestrian awareness. This can be installed without any changes to the infrastructure.

- **Recommendations: Reactivate signal with LPIs**

7.4 MAIN STREET & CENTER STREET

The north and east legs of this intersection were closed, and the signalized intersection was turned to flash-mode. The current signal operations do not provide any protected crossing for pedestrians. This intersection has the highest volume of pedestrian volumes within the study area with 703 pedestrians recorded during both the four (4) hour peak periods between 7:00 AM-9:00 AM and 4:00 PM-6:00 PM. One pedestrian crash was recorded at this intersection on the south leg of the intersection.

Recommendations for this intersection include reactivating the existing signal to provide protected crossings for the pedestrians. The addition of a Leading Pedestrian Interval (LPI) can also be implemented at this intersection with signal timing adjustments to increase pedestrian awareness. This can be installed without any changes to the infrastructure. Another option to consider is a pedestrian only phase that can be utilized to stop all vehicle traffic and only permit protected pedestrian crossings. This option can be implemented with the addition of pedestrian push buttons. Providing a raised intersection will increase pedestrian awareness at this intersection, reduce speeds and improve pedestrian safety.

- **Recommended: Reactivate signal with LPIs, Pedestrian Scramble with Push buttons, Raised Intersection Special Emphasis Crosswalks**

7.5 CADY STREET & CENTER STREET

This intersection is currently operating with a temporary All-Way Stop. This intersection was investigated for signalization with the increased traffic generated by the Downs, but is not anticipated to meet signal warrants with the existing street closures in place. A Special Emphasis crosswalk with pedestrian gateway treatments is recommended at this intersection. The Special Emphasis crosswalk will make drivers more aware of the potential for pedestrians to be crossing the street, and the gateway treatments will require the drivers to slow down when passing through them to avoid hitting them. Adding in the Special Emphasis crosswalk and gateway treatments is a low-cost and short-term mitigation to slow vehicles down and keep pedestrians safer.

The east/west alignment at this intersection was reviewed as it relates to pedestrian access and visibility. Where possible, the intersection should be aligned east/west to improve the sight distance for northbound right-turning vehicles and reduce the crossing distances. Overall, the intersection influence area is larger than necessary and could be reduced with the alignment of the east/west Cady Street.

- **Recommended: Special Emphasis Crosswalks, Align east/west roadway through intersection**

7.6 Fairbrook Street & Center Street

The intersection of Fairbrook Street and Center Street is anticipated to see increased vehicle and pedestrian activity with the addition of the Northville Downs development project. As part of the project, a median island has been proposed at this intersection. In addition to these improvements, a Rectangular Rapid Flashing Beacon (RRFB) and Special Emphasis Crosswalk are recommended to improve the safety and increase awareness of pedestrians crossing at this intersection.

- **Recommended: Rectangular Rapid Flashing Beacon (RRFB) and Special Emphasis Crosswalk**

8 HUTTON STREET CORRIDOR

8.1 DUNLAP STREET MIDBLOCK CROSSING

The midblock crossing is located west of the Hutton Street and Dunlap Street intersection and provides a connection between the Municipal Park lot on the south side and the sidewalk on the north side of Dunlap Street. Review of this location showed that there are curb extensions on the south side of the roadway, a pedestrian gateway treatment with yield lines in advance of the crossing. However, it was noted that the adjacent on-street parking to the east of the crosswalk is not compliant with the requirements for parking adjacent to a crosswalk. The on-street parking striping should be revised to maintain a minimum of 20-ft separation from the on-street parking spaces and the crosswalk. Additionally, the yield signs provided should be a larger 24x36 size.

- **Recommendations: Remove on-street parking that conflicts with the crosswalk separation standards, upgrade the existing yield to pedestrian signs to larger size, add advance intersection ahead signage to increase awareness of the mid-block crossing location, consider RRFB and the addition of positive offset lighting.**

8.2 DUNLAP STREET & HUTTON STREET

This intersection has limited sight distance due to the curve and the landscaping within the median which creates the potential for pedestrian crashes at the crossing on the east leg of this intersection. The crosswalk is located approximately 40 feet to the east of the intersection, where vehicles would not be looking for pedestrians to cross. The safest option is to eliminate the crossing at this location and utilize the existing pedestrian crossings on the east and north legs of the intersection.

- **Recommendations: Remove pedestrian crossing**

8.3 PARKING LOT S. OF HUTTON /FORD FIELD ACCESS & HUTTON STREET

The Municipal Parking Lot located adjacent to the south and west sides of Hutton Street has a driveway located on S. Hutton Street, opposite an access driveway to another parking lot located on the east side of Hutton Street. This location has been identified as a frequent mid-block crossing location to access Ford Field. A

new access from Hutton Street to Ford Field is planned, which is expected to increase the pedestrian demand at this intersection. Therefore, mitigation measures were reviewed to improve the safety at this intersection.

It is recommended to extend the existing raised median to the south, through the full access intersections to create right-in/right-out only access at the existing driveways. The extension of this median can also be utilized to provide a pedestrian median and crosswalk at this location. This area has limited sight distance, therefore additional signing and striping and an RRFB is recommended to increase pedestrian awareness at this location. The crosswalk should be located as far south as feasible to increase the vehicle sight-distance.

- **Recommendations: Extend existing median to the south, provide RIRO only driveways at parking lots, add pedestrian crossing to connect Ford Field, provide enhanced pedestrian crosswalk with advance signing and RRFB**

8.4 MAIN STREET & HUTTON STREET

The west leg of this intersection was closed, and the intersection currently operates in flash mode. There was a high volume of pedestrians recorded at this intersection, with 437 pedestrians during the four (4) hour peak periods between 7:00 AM-9:00 AM and 4:00 PM-6:00 PM. One pedestrian crash was recorded when a pedestrian was struck attempting to cross the east leg of the intersection. Recommendations for this intersection include reactivating the existing signal to provide protected crossings for the pedestrians. Additional pedestrian accommodations recommended at this intersection include the addition of LPIs, No-Turn on Red and updated pavement markings with the revised intersection geometry.

The access on Hutton Street south of Main Street was also reviewed. The Mobility Network Team has suggested making Hutton Street and Church Street one-way pairs through this area; with Hutton Street one-way northbound and maintaining Church Street one-way southbound. Changing the operations at this intersection would reduce the potential for pedestrian vehicle conflicts, by eliminating all conflicting movements on the south leg, with the exception of northbound traffic.

Recommendations: Leading Pedestrian Intervals (LPI), Special Emphasis crosswalks, No turn on red, Restriping with the revised geometry, convert to one-way northbound.

8.5 E. CADY STREET & HUTTON STREET

This intersection was identified by the community as a location that has higher volumes of pedestrian movements, specifically children that are utilizing the intersection to access the adjacent church/school. The intersection currently operates as a two-way stop control, with a STOP sign only on the Hutton Street approach. There are curb extensions at the intersection on E. Cady Street, which reduce the crossing distance, however, the on-street parking creates sight distance limitations for the vehicles on the Hutton Street approach. Based upon the review of the sight distance and the pedestrian volumes an ALL-WAY Stop may be considered at this intersection to increase the safety for pedestrians crossing at this intersection.

- **Recommendation: ALL-WAY Stop Control**

9 GRISWOLD STREET CORRIDOR

9.1 E. CADY STREET & GRISWOLD STREET

This intersection was identified by the community as a location that has higher volumes of pedestrian movements. The intersection currently operates as a two-way stop control, with a STOP sign only on the Griswold Street approach. There are curb extensions at the intersection on E. Cady Street west leg, which reduce the crossing distance, however, the on-street parking and the building in the northwest corner creates sight distance limitations for the vehicles on Griswold Street approach. Based upon the review of the sight distance and the pedestrian volumes, an ALL-WAY Stop may be considered at this intersection to increase the safety for pedestrians crossing at this intersection.

- **Recommendation: ALL-WAY STOP control**

9.2 S. MAIN STREET / NORTHVILLE ROAD & GRISWOLD STREET

Griswold Street is a primary route for both vehicles and trucks to access the City from both the north and east. This intersection has an older diagonal span signal and is frequently utilized as a primary route east of the downtown area and provides access to Eight Mile Road and the Interstate network to the north and east of the City. One pedestrian crash occurred at this intersection when a pedestrian was struck while crossing. This intersection is anticipated to see increase pedestrian activity due to the new Riverwalk and adjacent park. It is recommended to upgrade this intersection to current signal and ADA standards to accommodate existing and future pedestrians at this intersection.

- **Recommendation: Signal upgrade, ADA ramps, Special Emphasis crosswalk, LPIs**

10 CADY STREET CORRIDOR

The Cady Street corridor has seen significantly increased traffic volumes with the Main Street closure. Cady Street has on-street parking, off-street parking, and numerous cross-street intersections. The roadway design was not intended to accommodate the traffic volumes currently experienced. Mitigation measures that were previously noted include: **All-Way Stop Control at the Griswold Street, Hutton Street, Center Street (existing) intersections.**

10.1 PEDESTRIAN CROSSINGS

There are two proposed pedestrian crossings east of Center Street as part of the Downs development. The mitigation measures at these crossing locations are currently proposed to be performed as part of the Downs development agreement.

There is an existing pedestrian crossing on W. Cady Street, that connects the municipal parking lot and the adjacent Northville Square Building. The existing crosswalk is marked and signed. There are also yield lines and a gateway treatment provided. This location was identified as a high pedestrian crossing location. Mitigation measures were identified to improve the safety of this crossing.

- **Recommendations: Special Emphasis Crosswalk, RRFB, Positive offset lighting, Curb Extensions, Parking lot modifications to provide pedestrian crossing.**

11 SUMMARY

11.1 WING STREET NEIGHBORHOOD

The recommendations for the Wing Street Neighborhood are summarized in **Table 3** and shown on the exhibit in **Appendix A**.

TABLE 3: WING STREET NEIGHBOURHOOD RECOMMENDATIONS

Corridor	Location		Mitigation Recommendations	Cost Category	Scheduling Category
Wing Street	Wing Court	#1	Pedestrian Crossing	\$	Mid-Term
			Curb Extensions	\$	Mid-Term
	Midblock Crossing at Municipal Parking Lot	#2	Pedestrian Crossing	\$	Mid-Term
			Curb Extensions	\$	Mid-Term
	Cady Street	#3	Curb Extensions	\$	Mid-Term
Main Street	Fairbrook Street	#4	Special Emphasis Crosswalk	\$	Short Term
			Curb Extensions	\$	Mid-Term
			Prohibit Parking within Intersection	\$	Short Term
	Linden Street	#5	Pedestrian Crossing	\$	Short Term
			Curb Extensions	\$	Mid-Term
			Prohibit Parking within Intersection	\$	Short Term
Randolph Street	West Street	#6	Curb Extensions	\$	Mid-Term
			Stop Bar	\$	Short Term
			Special Emphasis Crosswalk	\$	Short Term
	Linden Street	#7	Stop Bar	\$	Short Term
			Special Emphasis Crosswalk	\$	Short Term
			Stop Bar	\$	Short Term
Wing Street	West Street	#8	Special Emphasis Crosswalk	\$	Short Term
			Stop Bar	\$	Short Term
Wing Street	Wing Street	#9	Special Emphasis Crosswalk	\$	Short Term
			Stop Bar	\$	Short Term

11.2 CENTER STREET CORRIDOR

The recommendations for the Wing Street Neighborhood are summarized in **Table 4** and shown on the exhibit in **Appendix A**.

TABLE 4: CENTER STREET CORRIDOR RECOMMENDATIONS

Corridor	Location	Mitigation Recommendations	Cost Category	Scheduling Category
Center Street	Rayson Street #10	Pedestrian Crossing	\$\$	Short Term
		Special Emphasis Crosswalk	\$	Short Term
		Advance Signage	\$	Short Term
	Randolf Street #11	Pedestrian Crossing	\$\$	Short Term
		Special Emphasis Crosswalk	\$	Short Term
		Rectangular Rapid Flashing Beacon (RRFB)	\$\$	Mid Term
	Dunlap Street #12	Activate existing signal to provide protected pedestrian crossings	\$	Short Term
		Provide Leading Pedestrian Interval (LPI)	\$	Short Term
		Activate existing signal to provide protected pedestrian crossings	\$	Short Term
	Main Street #13	Provide Leading Pedestrian Interval (LPI)	\$	Short Term
		Add Pedestrian push-button activation to provide protected pedestrian crossings, including pedestrian only phase	\$\$	Mid Term
		Raised Intersection	\$\$\$	Long Term
	Cady Street #14	Install Special Emphasis crosswalk	\$	Short Term
		Align Cady Street east/west through intersection	\$\$\$	Long Term
	Fairbrook Street #15	Rectangular Rapid Flashing Beacon (RRFB).	\$\$	Mid Term
		Install Special Emphasis crosswalk	\$	Short Term

11.3 HUTTON STREET CORRIDOR

The recommendations for the Wing Street Neighborhood are summarized in **Table 5** and shown on the exhibit in **Appendix A**.

TABLE 5: HUTTON STREET CORRIDOR RECOMMENDATIONS

Corridor	Location		Mitigation Recommendations	Cost Category	Scheduling Category
Hutton Street	Dunlap Street Mid-Block Crossing (west of Hutton)	#16	Prohibit Parking that conflicts with crosswalk separation	\$	Short Term
			Upgrade yield signs to larger signs	\$	Short Term
			Add advance crosswalk signage	\$	Short Term
			Provide Rectangular Rapid Flashing Beacon (RRFB)	\$\$	Mid Term
			Add crosswalk lighting	\$\$	Mid Term
	Hutton Street	#17	Remove pedestrian crossing on the SW leg of Hutton Street	\$	Short Term
	Parking Lot Access S. of Hutton	#18	Extend existing median to the south, provide RIRO only driveways at parking lots,	\$\$	Mid Term
			Provide pedestrian crossing to connect Ford Field with provide enhanced pedestrian crosswalk with advance signing and RRFB	\$\$	Mid Term
	Main Street	#19	Add Leading Pedestrian Interval	\$	Short Term
			Add No Turn On Red signs	\$	Short Term
			Install Special Emphasis crosswalks	\$	Short Term
			One Way northbound	\$\$	Mid Term
	E. Cady Street	#20	All Way STOP Control	\$	Short Term

11.4 GRISWOLD STREET CORRIDOR

The recommendations for the Wing Street Neighborhood are summarized in **Table 6** and shown on the exhibit in **Appendix A**.

TABLE 6: GRISWOLD STREET CORRIDOR RECOMMENDATIONS

Corridor	Location		Mitigation Recommendations	Cost Category	Scheduling Category
Griswold Street	E. Cady Street	#21	All-Way STOP Control	\$	Short Term
	Main Street	#22	Provide Leading Pedestrian Interval (LPI)	\$	Short Term
			Provide Special Emphasis Crosswalk	\$	Short Term
			Upgraded ADA ramps	\$\$	Mid Term
			Signal Upgrade	\$\$\$	Long Term

11.5 CADY STREET CORRIDOR

The recommendations for the Wing Street Neighborhood are summarized in **Table 7** and shown on the exhibit in **Appendix A**.

TABLE 7: CADY STREET CORRIDOR RECOMMENDATIONS

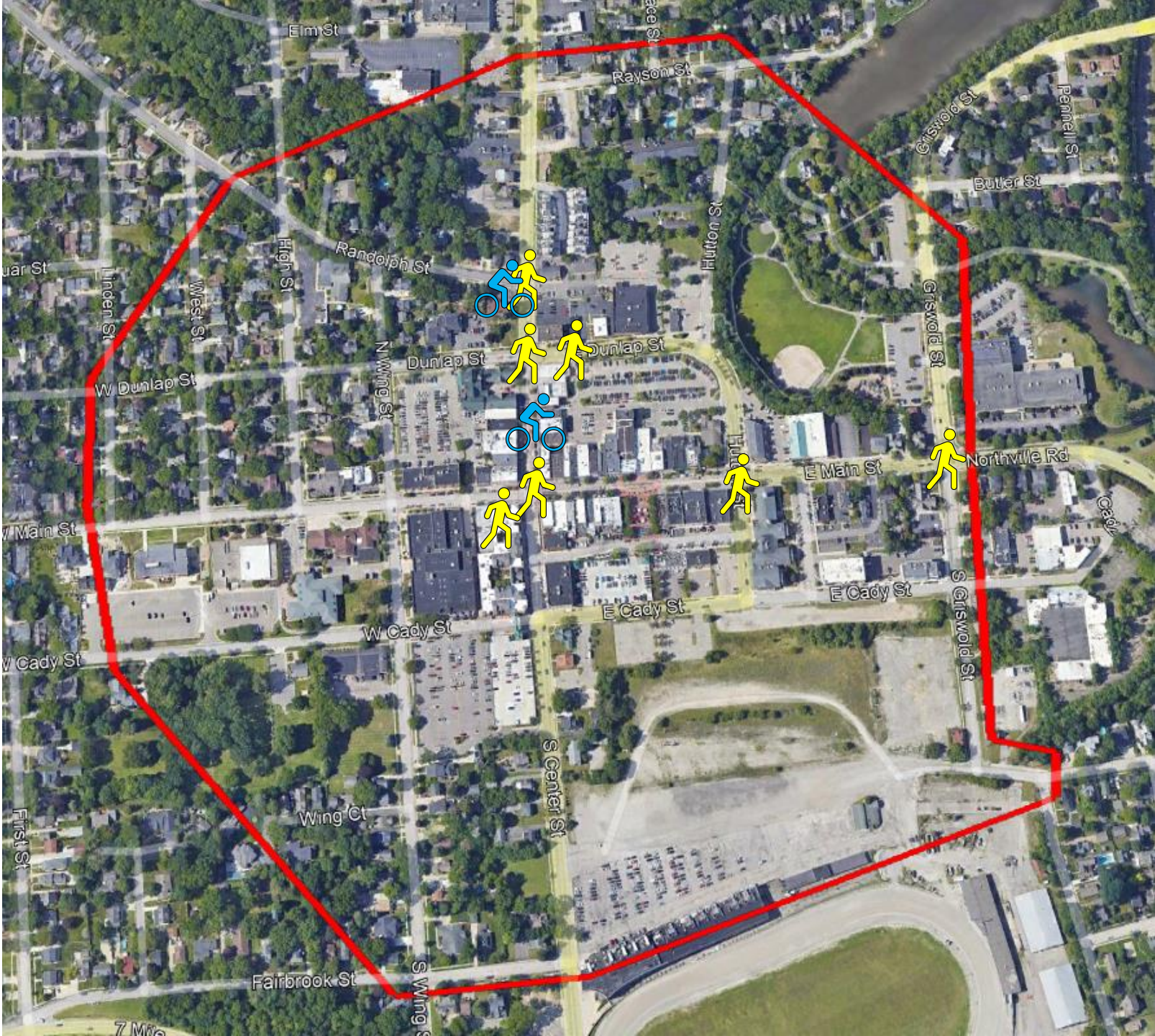
Location		Mitigation Recommendations	Cost Category	Scheduling Category
Pedestrian Crossing, West of Center Street	#23	Provide Special Emphasis Crosswalk	\$	Short Term
		Curb Extensions with Rectangular Rapid Flashing Beacon (RRFB), Parking lot modifications	\$\$\$	Long Term

Appendix A

Crash Summary Exhibits

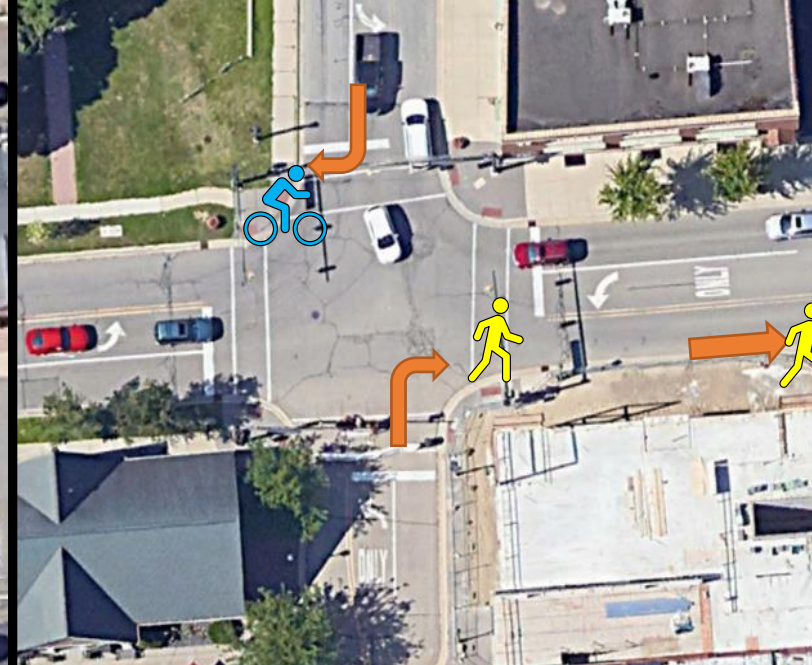
Recommended Mitigation Measures

Crash Location Map

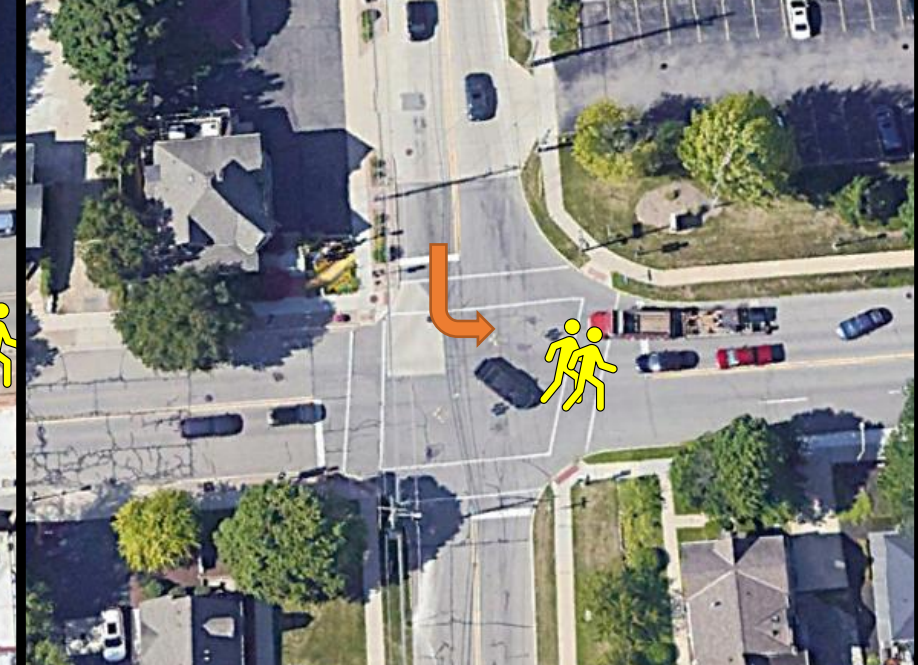




Center Street & Randolph Street



Center Street & Dunlap Street



Main Street & Griswold Street



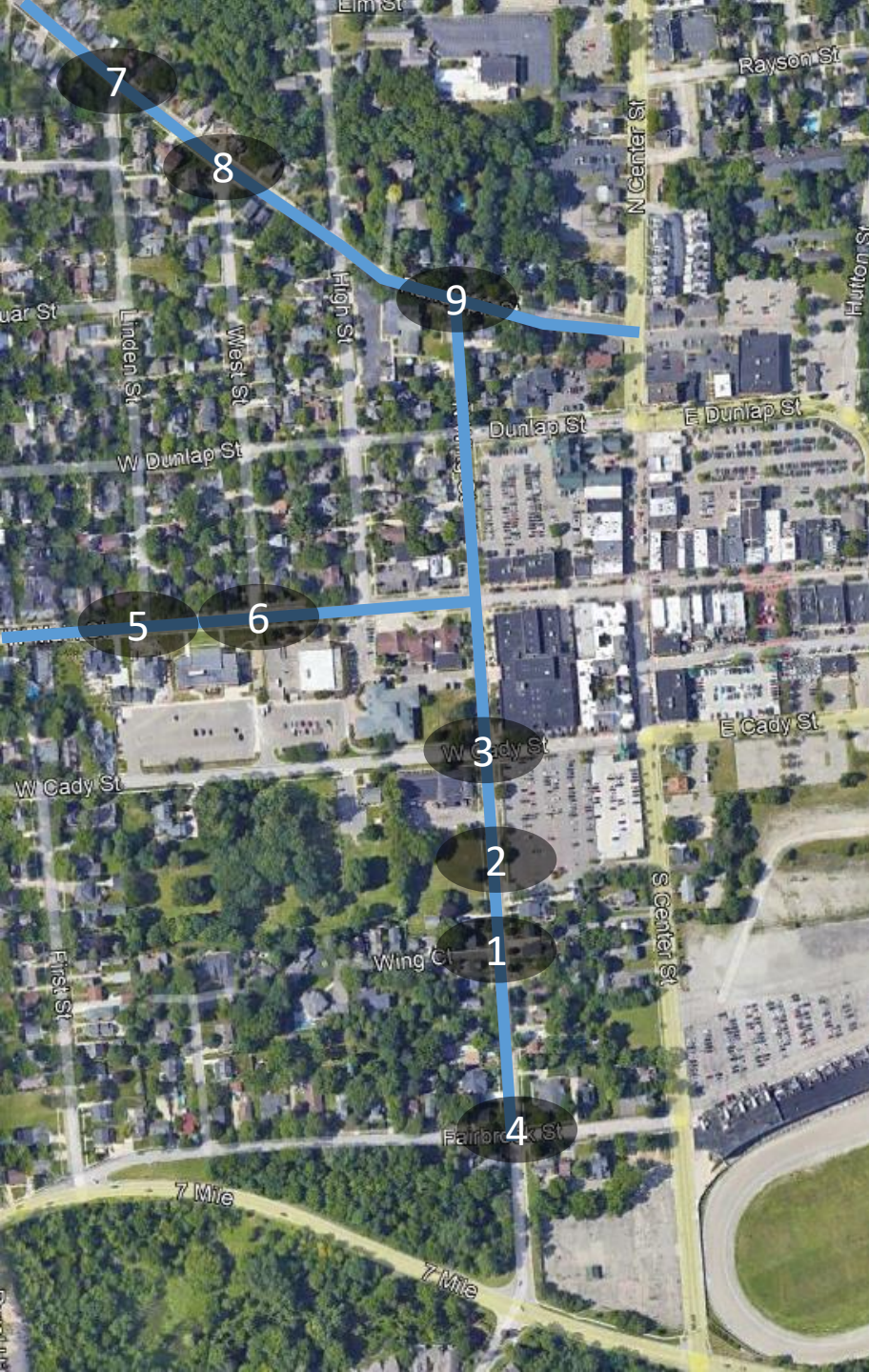
Center Street & Main Street



Hutton Street & Main Street

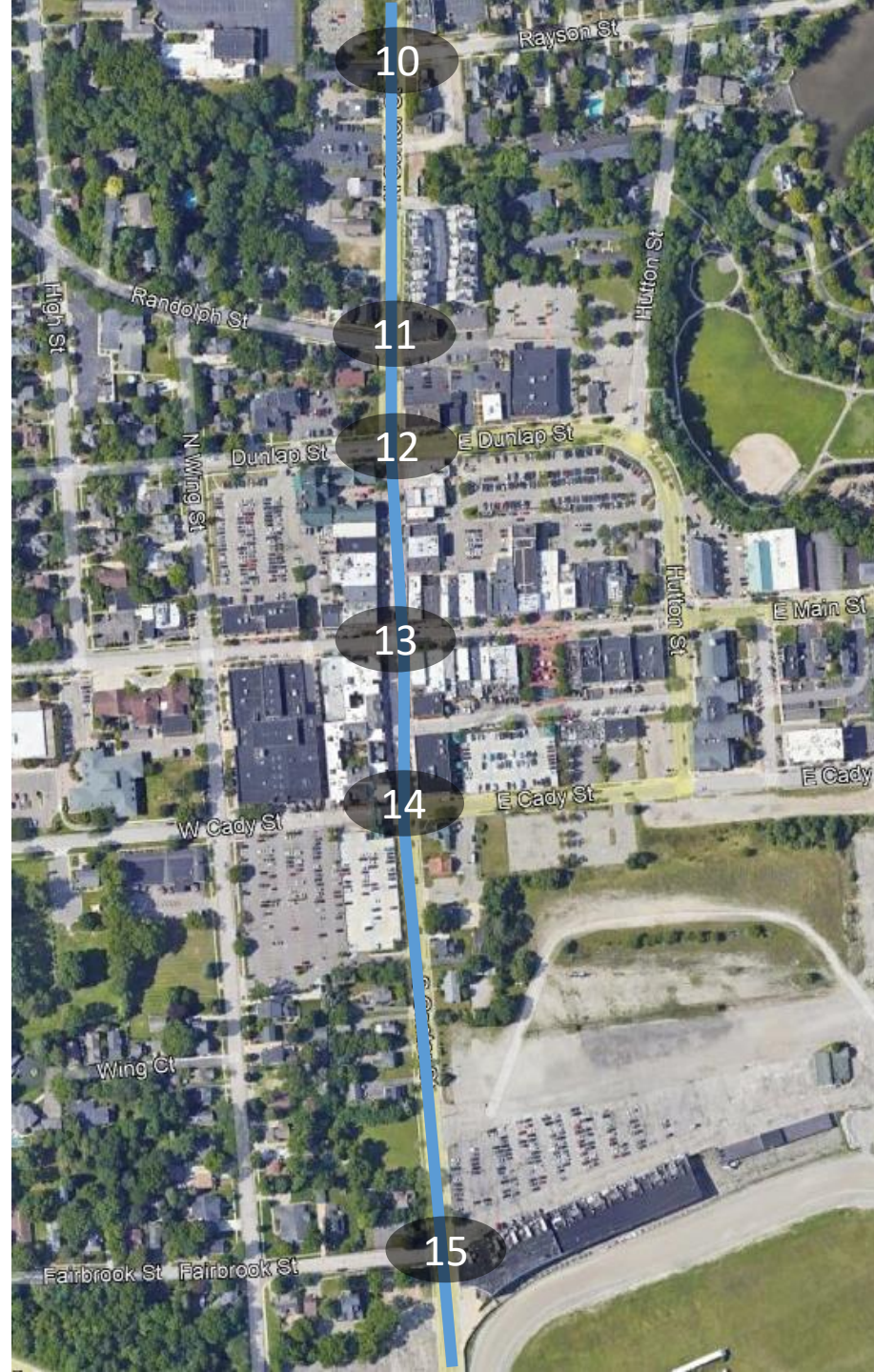


Lot # 4 & W. Cady Street



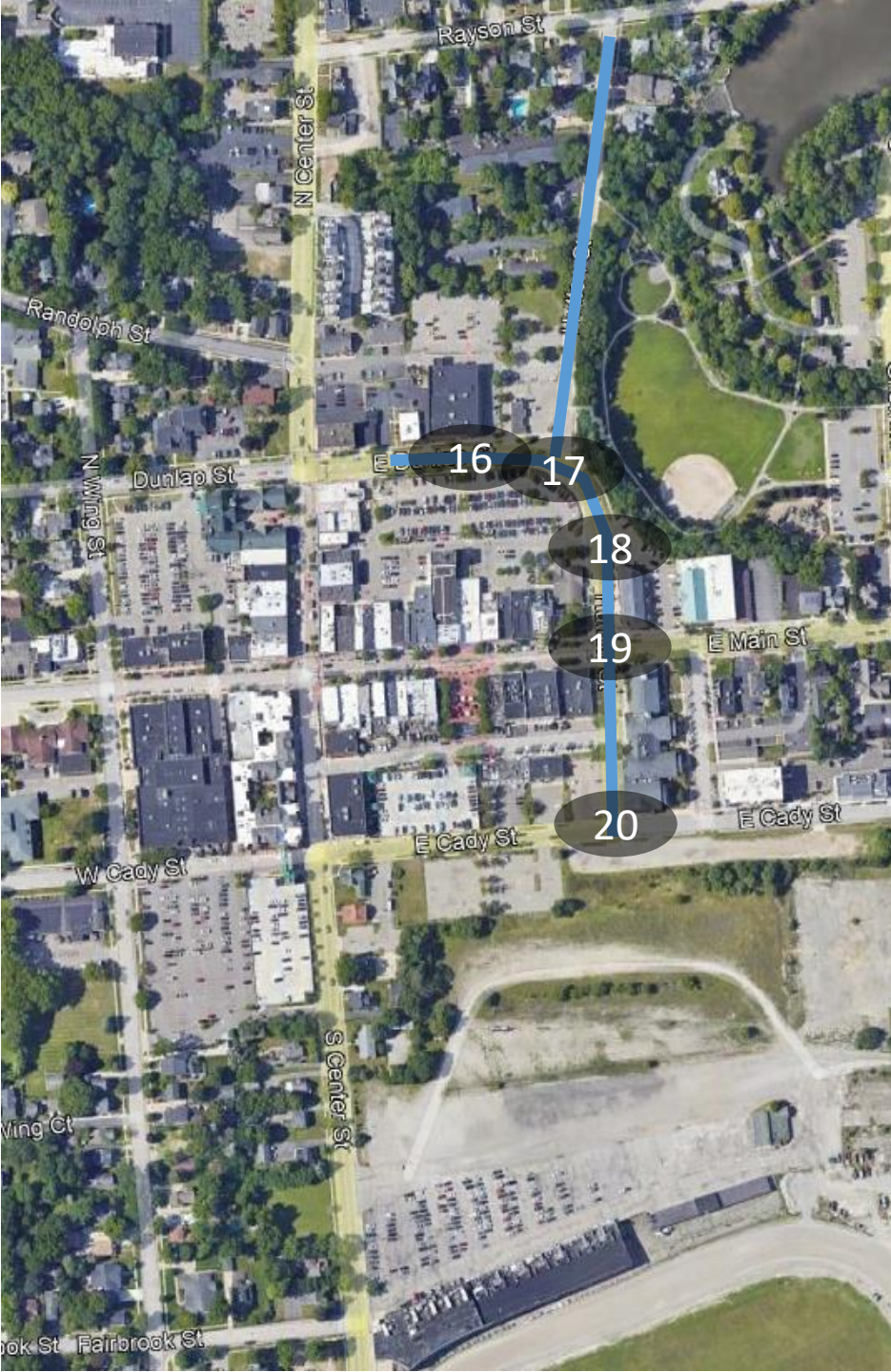
Wing Street Neighborhoods

Corridor	Location		Mitigation Recommendations	Cost Category	Scheduling Category
Wing Street	Wing Court	#1	Pedestrian Crossing	\$\$	Mid-Term
			Curb Extensions	\$\$	Mid-Term
	Midblock Crossing at Municipal Parking Lot	#2	Pedestrian Crossing	\$\$	Mid-Term
			Curb Extensions	\$\$	Mid-Term
	Cady Street	#3	Curb Extensions	\$\$	Mid-Term
	Fairbrook Street	#4	Special Emphasis Crosswalk	\$	Short Term
			Curb Extensions	\$\$	Mid-Term
Main Street	Linden Street	#5	Prohibit Parking within Intersection	\$	Short Term
			Pedestrian Crossing	\$\$	Short Term
			Curb Extensions	\$\$	Mid-Term
	West Street	#6	Prohibit Parking within Intersection	\$	Short Term
			Curb Extensions	\$\$	Mid-Term
Randolph Street	Linden Street	#7	Stop Bar	\$	Short Term
			Special Emphasis Crosswalk	\$	Short Term
	West Street	#8	Stop Bar	\$	Short Term
			Special Emphasis Crosswalk	\$	Short Term
	Wing Street	#9	Stop Bar	\$	Short Term
			Special Emphasis Crosswalk	\$	Short Term



Center Street Corridor

Corridor	Location	Mitigation Recommendations	Cost Category	Scheduling Category
Center Street	Rayson Street #10	Pedestrian Crossing	\$\$	Short Term
		Special Emphasis Crosswalk	\$	Short Term
		Advance Signage	\$	Short Term
	Randolf Street #11	Pedestrian Crossing	\$\$	Short Term
		Special Emphasis Crosswalk	\$	Short Term
		Rectangular Rapid Flashing Beacon (RRFB)	\$\$	Mid Term
	Dunlap Street #12	Activate existing signal to provide protected pedestrian crossings	\$	Short Term
		Provide Leading Pedestrian Interval (LPI)	\$	Short Term
		Activate existing signal to provide protected pedestrian crossings	\$	Short Term
	Main Street #13	Provide Leading Pedestrian Interval (LPI)	\$	Short Term
		Add Pedestrian push-button activation to provide protected pedestrian crossings, including pedestrian only phase	\$\$	Mid Term
		Raised Intersection	\$\$\$	Long Term
	Cady Street #14	Install Special Emphasis crosswalk	\$	Short Term
		Align Cady Street east/west through intersection	\$\$\$	Long Term
	Fairbrook Street #15	Rectangular Rapid Flashing Beacon (RRFB).	\$\$	Mid Term
		Install Special Emphasis crosswalk	\$	Short Term



Hutton Street Corridor

Corridor	Location	Mitigation Recommendations	Cost Category	Scheduling Category
Hutton Street	Dunlap Street Mid-Block Crossing (west of Hutton)	#16 Prohibit Parking that conflicts with crosswalk separation	\$	Short Term
		Upgrade yield signs to larger signs	\$	Short Term
		Add advance crosswalk signage	\$	Short Term
		Provide Rectangular Rapid Flashing Beacon (RRFB)	\$\$	Mid Term
		Add crosswalk lighting	\$\$	Mid Term
	Hutton Street	#17 Remove pedestrian crossing on the SW leg of Hutton Street	\$	Short Term
	Parking Lot Access S. of Hutton	#18 Extend existing median to the south, provide RIRO only driveways at parking lots,	\$\$	Mid Term
		Provide pedestrian crossing to connect Ford Field with provide enhanced pedestrian crosswalk with advance signing and RRFB	\$\$	Mid Term
	Main Street	#19 Add Leading Pedestrian Interval	\$	Short Term
		Add No Turn On Red signs	\$	Short Term
		Install Special Emphasis crosswalks	\$	Short Term
		One Way northbound	\$\$	Mid Term
	E. Cady Street	#20 All Way STOP Control	\$	Short Term



Griswold Street Corridor

Corridor	Location		Mitigation Recommendations	Cost Category	Scheduling Category
Griswold Street	E. Cady Street	#21	All-Way STOP Control	\$	Short Term
	Main Street	#22	Provide Leading Pedestrian Interval (LPI)	\$	Short Term
			Provide Special Emphasis Crosswalk	\$	Short Term
			Upgraded ADA ramps	\$\$	Mid Term
			Signal Upgrade	\$\$\$	Long Term

Cady Street Corridor

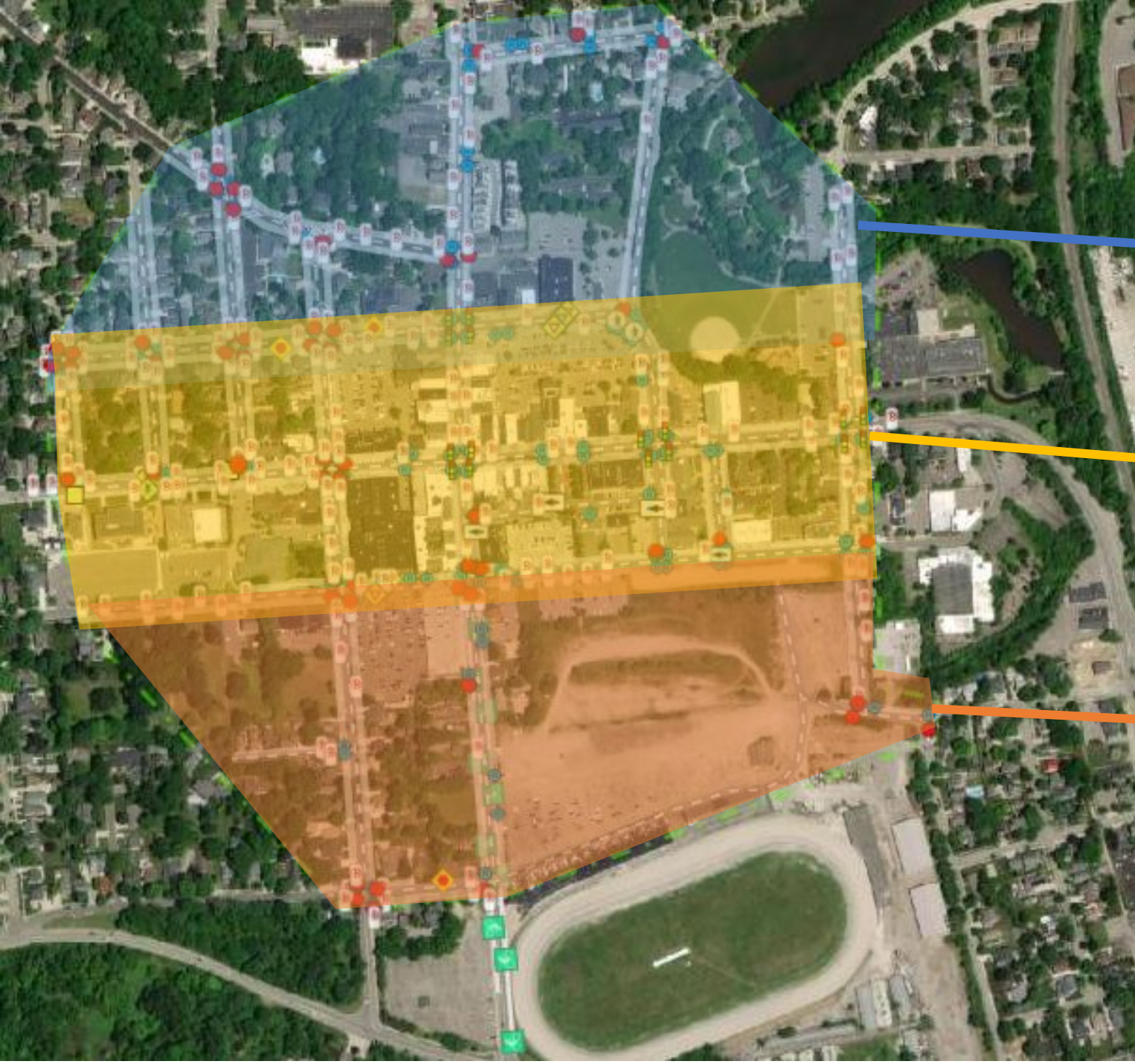
Location		Mitigation Recommendations	Cost Category	Scheduling Category
Pedestrian Crossing, West of Center Street	#23	Provide Special Emphasis Crosswalk	\$	Short Term
		Curb Extensions with Rectangular Rapid Flashing Beacon (RRFB), Parking lot modifications	\$\$\$	Long Term



Appendix B

Existing Infrastructure Summary

GIS Mapping

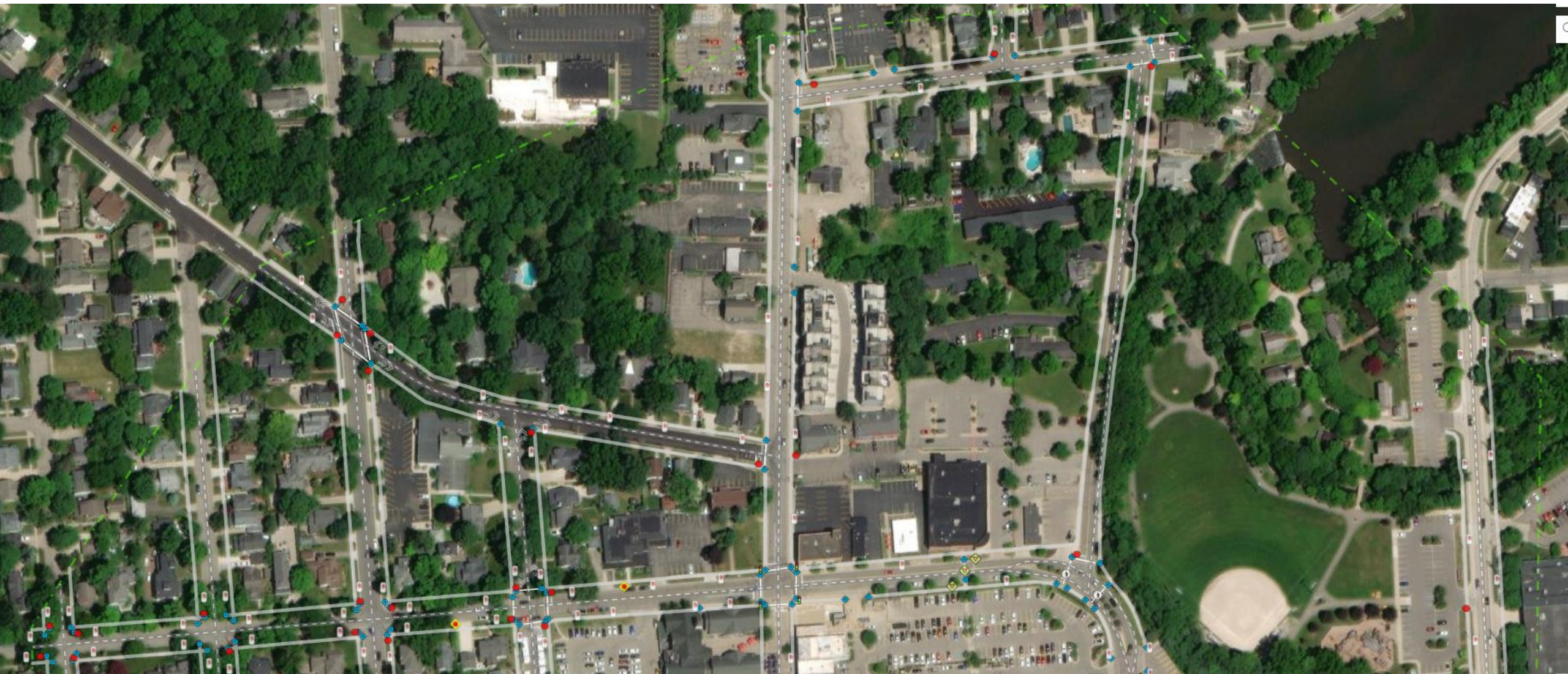


Section 1
North of
Dunlap Street

Section 2
Dunlap Street
to Cady Street

Section 3
South of Cady
Street

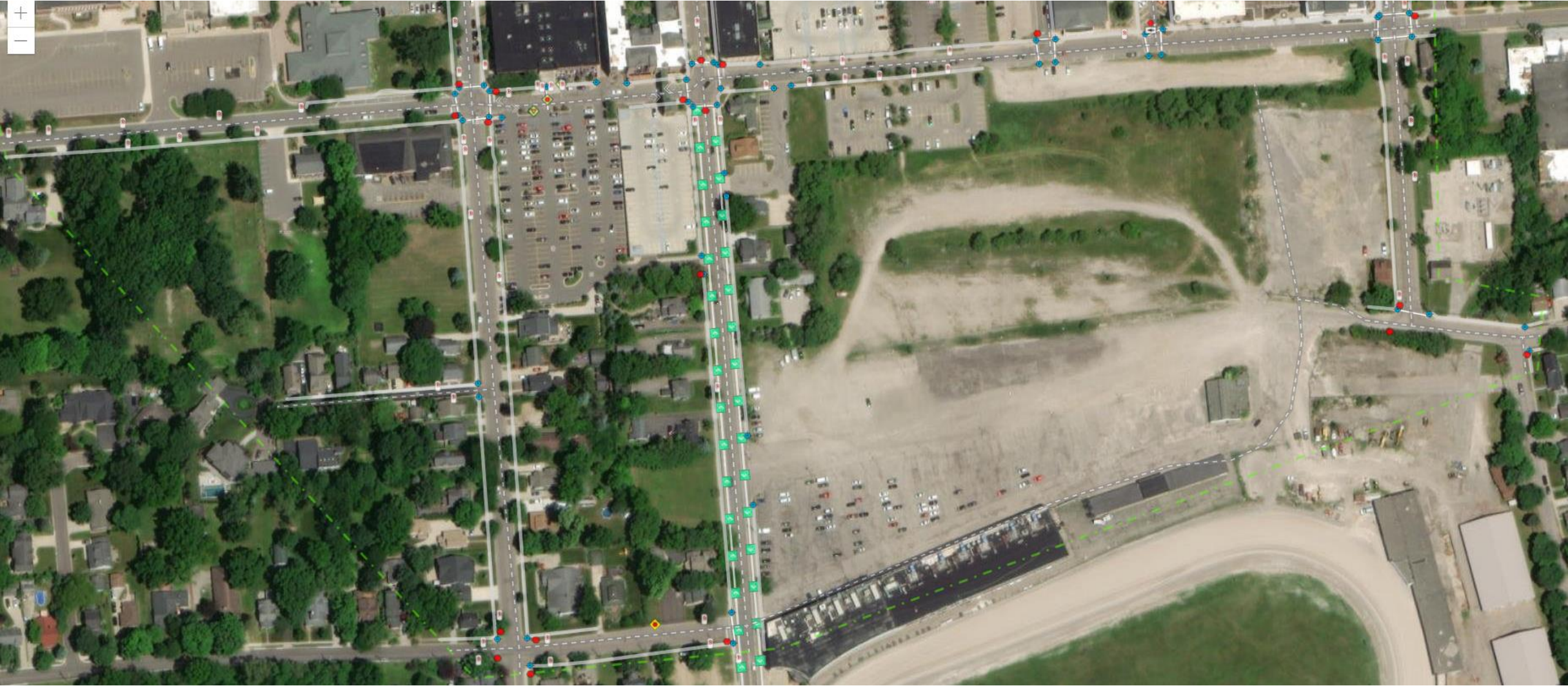
Section 1: North of Dunlap Street



Section 2: Dunlap Street to Cady Street



Section 3: South of Cady Street



Appendix C

Background Data

Crosswalk Visibility Enhancements

SAFE TRANSPORTATION FOR EVERY PEDESTRIAN

COUNTERMEASURE TECH SHEET

This example combines curb extensions, high-visibility markings, overhead lighting, and in-street signs on a two-lane roadway.



This group of countermeasures includes improved lighting, advance or in-street warning signage, pavement markings, and geometric design elements. Such features may be used in combination to indicate optimal or preferred locations for people to cross and to help reinforce the driver requirement to yield the right-of-way to pedestrians at crossing locations.

For multi-lane roadway crossings where vehicle AADTs are in excess of 10,000, a marked crosswalk alone is typically not sufficient (Zegeer, 2005). Under such conditions, more substantial crossing improvements are also needed to prevent an increase in pedestrian crash potential. Examples of more substantial treatments include the refuge island, PHB, and RRFB.



Poor lighting conditions, obstructions such as parked cars, and horizontal or vertical roadway curvature can reduce visibility at crosswalks, contributing to higher crash rates.



Crosswalk visibility enhancements help make crosswalks and/or pedestrians more visible and can help pedestrians decide where to cross.

Crosswalk visibility enhancements can reduce crashes by

23–48%



FEATURES:

- High visibility marking improves visibility of the crosswalk compared to the standard parallel lines.
- Parking restriction on the crosswalk approach improves the sightlines for motorists and pedestrians.
- Advance STOP or YIELD markings & signs reduce the risk of a multiple threat crash.
- Curb extension improves sight distance between drivers and pedestrians and narrows crossing distance.
- In street STOP or YIELD signs may improve driver yielding rates.

Crosswalk Visibility Enhancements

EDC-4 STEP: https://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/step.cfm

High-visibility crosswalk marking. High-visibility crosswalks are preferred over parallel line crosswalks and should be provided at all established midblock pedestrian crossings. They should also be considered at uncontrolled intersections.

Parking restriction on the crosswalk approach. Parking restriction can include the removal of parking space markings, installation of new “parking prohibition” pavement markings or curb paint, and signs. The minimum setback is 20 feet in advance of the crosswalk where speeds are 25 mph or less, and 30 feet where speeds are between 26 and 35 mph.

Advance YIELD or STOP markings and signs.¹ The stop bar or “sharks teeth” yield markings are placed 20 to 50 feet in advance of a marked crosswalk to indicate where vehicles are required to stop or yield in compliance with the accompanying “STOP Here for Pedestrians” or “YIELD Here to Pedestrians” sign.

Curb extension. This treatment, also referred to as bulb-outs, extends the sidewalk or curb line out into the parking lane, which reduces the effective street width. Curb extensions must not extend into travel lanes and should not extend across bicycle lanes.

Improved nighttime lighting.

Consideration should be given to placing lights in advance of midblock and intersection crosswalks on both approaches to illuminate the front of the pedestrian and avoid creating a silhouette.

In-street STOP or YIELD to pedestrian sign.² These signs serve to remind road users of laws regarding right-of-way, and they may be appropriate on 2-lane or 3-lane roads where speed limits are 30 mph or less. The sign can be placed in between travel lanes or in a median.

COST

Countermeasure	Range	Average
High visibility crosswalk marking	\$600-5,700 each	\$2,540 each
Lighting	<i>Varies based on fixture type and utility service agreement</i>	
Parking restriction	<i>Varies based on the required signs and pavement markings</i>	
Curb extension	\$2,000-20,000	\$13,000 each
Advance STOP/YIELD sign	N/A	\$300 each
Advance STOP/YIELD line	N/A	\$320 each
In-street STOP/YIELD sign	N/A	\$240 each

¹MUTCD section 2B.12 In-Street and Overhead Pedestrian Crossing Signs (R1-6, R1-6a, R1-9, and R1-9a)

²MUTCD reference: Section 2B.11 Yield Here To Pedestrians Signs and Stop Here For Pedestrians Signs (R1-5 Series)

References

Harkey, D.L., R. Srinivasan, J. Baek, F. Council, K. Eccles, N. Lefler, F. Gross, B. Persaud, C. Lyon, E. Hauer, and J. Bonneson. (2008). NCHRP Report 617: Crash Reduction Factors for Traffic Engineering and ITS Improvements. Transportation Research Board, Washington, D.C.

Zegeer, C., R. Srinivasan, B. Lan, D. Carter, S. Smith, C. Sundstrom, N.J. Thirsk, J. Zegeer, C. Lyon, E. Ferguson, and R. Van Houten. (2017). NCHRP Report 841: Development of Crash Modification Factors for Uncontrolled Pedestrian Crossing Treatments. Transportation Research Board, Washington, D.C.

Gibbons, R. B., Edwards, C., Williams, B., & Andersen, C. K. (2008). Informational Report on Lighting Design for Midblock Crosswalks. Report No. FHWA-HRT-08-053. Federal Highway Administration.

Bushell, M., Poole, B., Zegeer, C., & Rodriguez, D. (2013). Costs for Pedestrian and Bicyclist Infrastructure Improvements: A Resource for Researchers, Engineers, Planners, and the General Public. Pedestrian and Bicycle Information Center.

Federal Highway Administration. (2013). Multiple webpages in PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System:

- Marked Crosswalks and Enhancements: http://www.pedbikesafe.org/PEDSAFE/countermeasures_detail.cfm?CM_NUM=4
- Lighting and Illumination: http://www.pedbikesafe.org/PEDSAFE/countermeasures_detail.cfm?CM_NUM=8
- Parking Restrictions: http://www.pedbikesafe.org/PEDSAFE/countermeasures_detail.cfm?CM_NUM=9
- Curb Extensions: http://www.pedbikesafe.org/PEDSAFE/countermeasures_detail.cfm?CM_NUM=5
- Advance Stop/Yield Lines: http://www.pedbikesafe.org/PEDSAFE/countermeasures_detail.cfm?CM_NUM=13

Leading Pedestrian Interval (LPI)


SAFE TRANSPORTATION FOR EVERY PEDESTRIAN


COUNTERMEASURE TECH SHEET



Leading Pedestrian Intervals (LPIs) are low-cost adjustments to signal timing to increase pedestrian safety at signalized intersections. An LPI gives pedestrians a typical 3- to 7-second head start before vehicles in the parallel direction are given the green signal indication. LPIs can help reduce conflicts between pedestrians and left- or right- turning vehicles. The LPI works to position the pedestrian within the crosswalk thereby decreasing the likelihood of a conflict or crash with a left- or right-turning vehicle ahead of the turning traffic. Agencies will often consider restricting Right Turns on Red (RTOR) in association with LPIs to better control for conflicts with right-turning vehicles.

The Manual on Uniform Traffic Control Devices (MUTCD) offers guidance on signal timing when LPI is used. The MUTCD says an LPI “should be at least 3 seconds in duration and should be timed to allow pedestrians to cross at least one lane of traffic or, in the case of a large corner radius, to travel far enough for pedestrians to establish their position before the turning traffic is released.” Using Accessible Pedestrian Signals (APS) with LPI provides indications for persons with disabilities. MUTCD guidance also offers considerations for accessible pedestrian signals when LPIs are used.²

 LPIs reduce conflicts between pedestrians and vehicles.

 LPIs improve visibility of pedestrians in the crosswalk.

LPIs can
reduce
pedestrian
crashes by¹

13%



FEATURES:

- Increased likelihood of driver yielding.
- Enhanced safety for slower moving pedestrians.

COMPLIMENTARY TREATMENTS:

- Right Turn on Red (RTOR) Restrictions.
- Accessible Pedestrian Signals.
- Parallel Vehicular Green Extension Interval.²



U.S. Department of Transportation
Federal Highway Administration



October 2019 | FHWA-SA-19-040

Leading Pedestrian Interval (LPI)

STEP: https://safety.fhwa.dot.gov/ped_bike/step/

LPI LENGTH

Researchers have developed formulas to help agencies calculate a desirable duration of an LPI, calculating the minimum time required for pedestrians to cross the first travel lane or halfway across one direction of travel. Streets with wide or multiple lanes may result in pedestrian crossing phases that are longer than the concurrent vehicle phase. This situation may lead the agency to consider elongated LPIs to reduce conflicts with left-turning vehicles.³

COST

LPI installation requires reprogramming the traffic signal to accommodate the advance pedestrian interval. In rare cases, agencies may need to upgrade signal controllers. The cost associated with LPI can range from \$200 (controller setting changes only) to \$1200 each (pedestrian/vehicle study, retiming analyses, incorporating the formers setting changes).¹



Source: FHWA

SELECTING SITES FOR LPI

Several cities across the U.S. have decided to install LPIs across systems of signalized intersections to improve pedestrian safety. Agencies prioritize the intersections where they install LPIs to maximize limited resources and after considering several common factors:

- **Crash history.** A review of 3 or more years of crash data for intersections with multiple crashes or a history of severe injury/fatal crashes are often a priority. Cities also use information from observed conflicts to supplement crash data.
- **Pedestrian crossing volumes.** Cities may look for pedestrian volumes exceeding traditional pedestrian signal warrants when considering LPIs. The estimated exposure (product of pedestrian and turning traffic volumes) may be another consideration.
- **Vulnerable populations.** Agencies often prioritize LPIs where school-aged children or older adults are expected to cross. These pedestrians may enter the crosswalk more slowly than other pedestrians.
- **One-Way Streets or at T-intersections.** Where left-turning vehicles aren't typically expected to yield to oncoming vehicles, LPIs may be useful to increase yielding to pedestrians in the crosswalk.
- **Intersection Visibility.** LPIs may be prioritized where the visibility of a crosswalk is limited or restricted. General examples are geometry, location of stopped vehicles, vegetation, and streetside features.

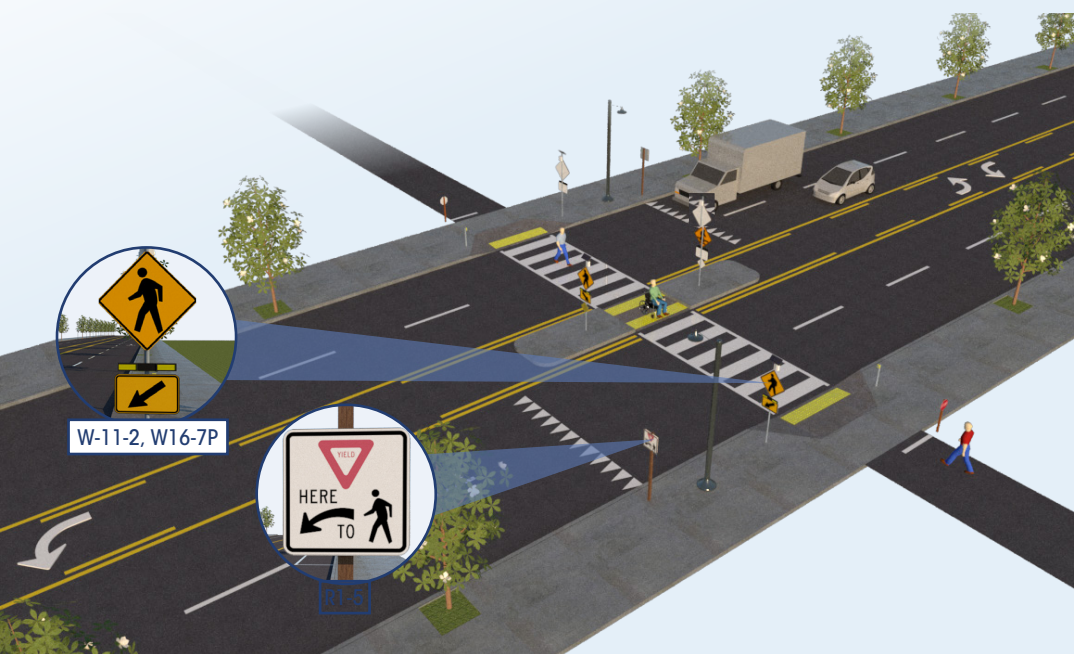
References

- ¹ Goughnour, E., Carter, D., Lyon, C., Persaud, B., Lan, B., Chun, P., ... Signor, K. (2018). Safety Evaluation of Protected Left Turn Phasing and Leading Pedestrian Intervals on Pedestrian Safety, Federal Highway Administration, Report No. FHWA-HRT-18-044. Washington, D.C.
- ² Federal Highway Administration. (2009). Part 4, Chapter 4E Manual on Uniform Traffic Control Devices. Federal Highway Administration. Washington, D.C.
- ³ Dittberner, R., & Vu, N. (2017). How Long Is Your LPI?: Balancing Pedestrian Comfort and Traffic Impacts with an Elongated Leading Pedestrian Interval. ITE Journal. Washington, D.C.

Rectangular Rapid-Flashing Beacon (RRFB)

SAFE TRANSPORTATION FOR EVERY PEDESTRIAN

COUNTERMEASURE TECH SHEET



RRFBs are pedestrian-actuated conspicuity enhancements used in combination with a pedestrian, school, or trail crossing warning sign to improve safety at uncontrolled, marked crosswalks. The device includes two rectangular-shaped yellow indications, each with an LED-array-based light source, that flash with high frequency when activated.

The RRFB is a treatment option at many types of established pedestrian crossings. Research indicates RRFBs can result in motorist yielding rates as high as 98 percent at marked crosswalks. However, yielding rates as low as 19 percent have also been noted. Compliance rates varied most per the city location, posted speed limit, crossing distance, and whether the road was one- or two-way. RRFBs are particularly effective at multilane crossings with speed limits less than 40 mph. Consider the Pedestrian Hybrid Beacon (PHB) instead for roadways with higher speeds. FHWA's *Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations* (HSA-17-072) provides specific conditions where practitioners should strongly consider the PHB instead of the RRFB.



Multiple lanes of traffic create challenges for pedestrians crossing at unsignalized locations.



RRFBs can make crosswalks and/or pedestrians more visible at a marked crosswalk.

RRFBs can
reduce
pedestrian
crashes by
47%



FEATURES:

- Enhanced warning improves motorist yielding

OFTEN USED WITH:

- Crosswalk visibility enhancements
- Pedestrian refuge island
- Advance STOP or YIELD markings and signs



U.S. Department of Transportation
Federal Highway Administration



June 2018, Updated

Rectangular Rapid-Flashing Beacon (RRFB)

EDC-4 STEP: https://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/step.cfm



CONSIDERATIONS

FHWA has issued interim approval for the use of the RRFB (IA-21). State and local agencies must request and receive permission to use this interim approval before they can use the RRFB. IA-21 does not provide guidance or criteria based on number of lanes, speed, or traffic volumes.

RRFBs are placed on both ends of a crosswalk. If the crosswalk contains a pedestrian refuge island or other type of median, an RRFB should be placed to the right of the crosswalk and on the median (instead of the left side of the crosswalk).

RRFBs typically draw power from standalone solar panel units, but may also be wired to a traditional power source. IA-21 provides conditions for the use of accessible pedestrian features with the RRFB assembly. When RRFBs are not in common use in a community, consider conducting an outreach effort to educate the public and law enforcement officers on their purpose and use.

COST

The cost associated with RRFB installation ranges from \$4,500 to \$52,000 each, with the average cost estimated at \$22,250. These costs include the complete system installation with labor and materials.

References

MUTCD section 2B.12 In-Street and Overhead Pedestrian Crossing Signs (R1-6, R1-6a, R1-9, and R1-9a).

Fitzpatrick, K., M. Brewer, R. Avelar, and T. Lindheimer. "Will You Stop for Me? Roadway Design and Traffic Control Device Influences on Drivers Yielding to Pedestrians in a Crosswalk with a Rectangular Rapid-Flashing Beacon." Report No. TTI-CTS-0010. Texas A&M Transportation Institute, College Station, Texas. June 2016. <https://static.tti.tamu.edu/tti.tamu.edu/documents/TTI-CTS-0010.pdf>

Federal Highway Administration. (2018). MUTCD – Interim Approval for Optional Use of Pedestrian-Actuated Rectangular Rapid-Flashing Beacons at Uncontrolled Marked Crosswalks (IA-21). U.S. Department of Transportation, Washington, DC.

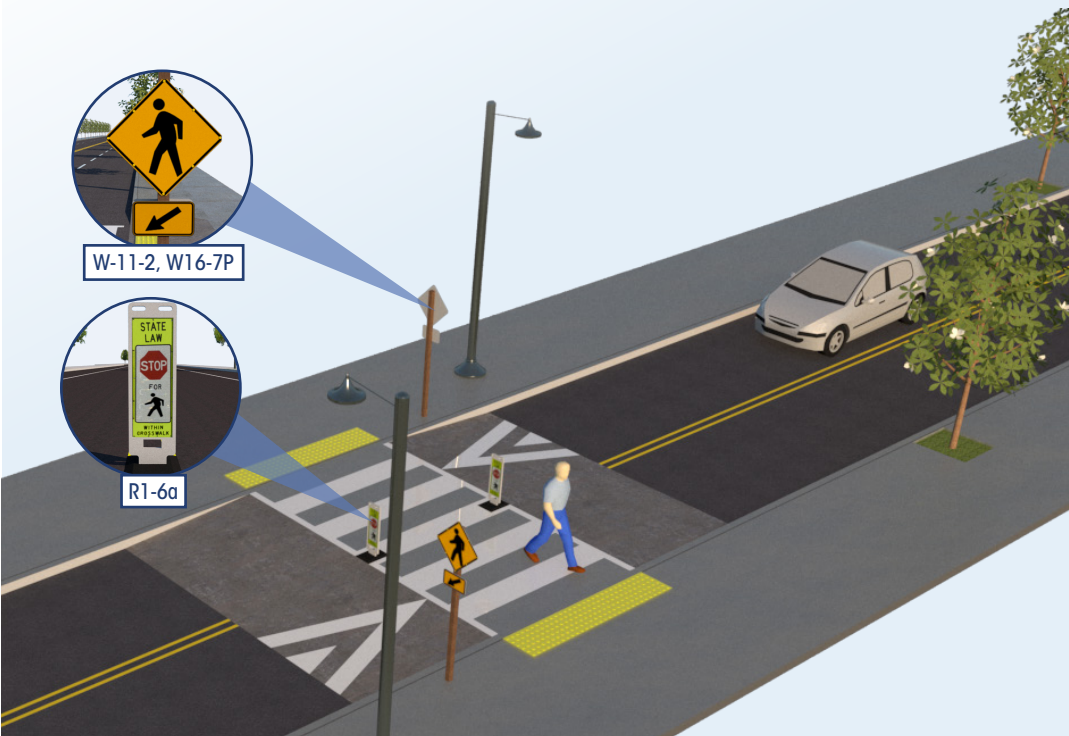
Federal Highway Administration. (2013). "Rectangular Rapid Flash Beacon" in PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System. Available: http://www.pedbikesafe.org/PEDSAFE/countermeasures_detail.cfm?CM_NUM=54

Bushell, M., Poole, B., Zegeer, C., & Rodriguez, D. (2013). Costs for Pedestrian and Bicyclist Infrastructure Improvements: A Resource for Researchers, Engineers, Planners, and the General Public. Pedestrian and Bicycle Information Center.

Raised Crosswalk

SAFE TRANSPORTATION FOR EVERY PEDESTRIAN


COUNTERMEASURE TECH SHEET




Raised crosswalks are ramped speed tables spanning the entire width of the roadway, often placed at midblock crossing locations. The crosswalk is demarcated with paint and/or special paving materials. These crosswalks act as traffic-calming measures that allow the pedestrian to cross at grade with the sidewalk.

In addition to their use on local and collector streets, raised crosswalks can be installed in campus settings, shopping centers, and pick-up/drop-off zones (e.g., airports, schools, transit centers).

Raised crosswalks are flush with the height of the sidewalk. The crosswalk table is typically at least 10 feet wide and designed to allow the front and rear wheels of a passenger vehicle to be on top of the table at the same time. Detectable warnings (truncated domes) and curb ramps are installed at the street edge for pedestrians with impaired vision.

 Local and collector roads with high speeds pose a significant challenge for pedestrians crossing the roadway.

 A raised crosswalk can reduce vehicle speeds and enhance the pedestrian crossing environment.

.....

Raised crosswalks can reduce pedestrian crashes by

45%



.....

FEATURES:

- Elevated crossing makes the pedestrian more prominent in the driver's field of vision, and allows pedestrians to cross at grade with the sidewalk
- Approach ramps may reduce vehicle speeds and improve motorist yielding

OFTEN USED WITH:

- Crosswalk visibility enhancements

Raised Crosswalk

EDC-4 STEP: https://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/step.cfm



CONSIDERATIONS

Raised crosswalks are typically installed on 2-lane or 3-lane roads with speed limits of 30 mph or less and annual average daily traffic (AADT) below about 9,000. Raised crossings should generally be avoided on truck routes, emergency routes, and arterial streets.

Drainage can be an issue. Raised crosswalks may be installed with curb extensions where parking exists. They may also be used at intersections, particularly at the entrance of the minor street.

Since this countermeasure can cause discomfort and noise (especially with larger vehicles), it may be appropriate to get public buy-in. Raised crosswalks may not be appropriate for bus transit routes or primary emergency vehicle routes. For States that experience regular snowfall, snowplowing can be a concern.

COST

The cost associated with a raised crosswalk ranges from \$7,110 to \$30,880 each, with the average cost estimated at \$8,170.

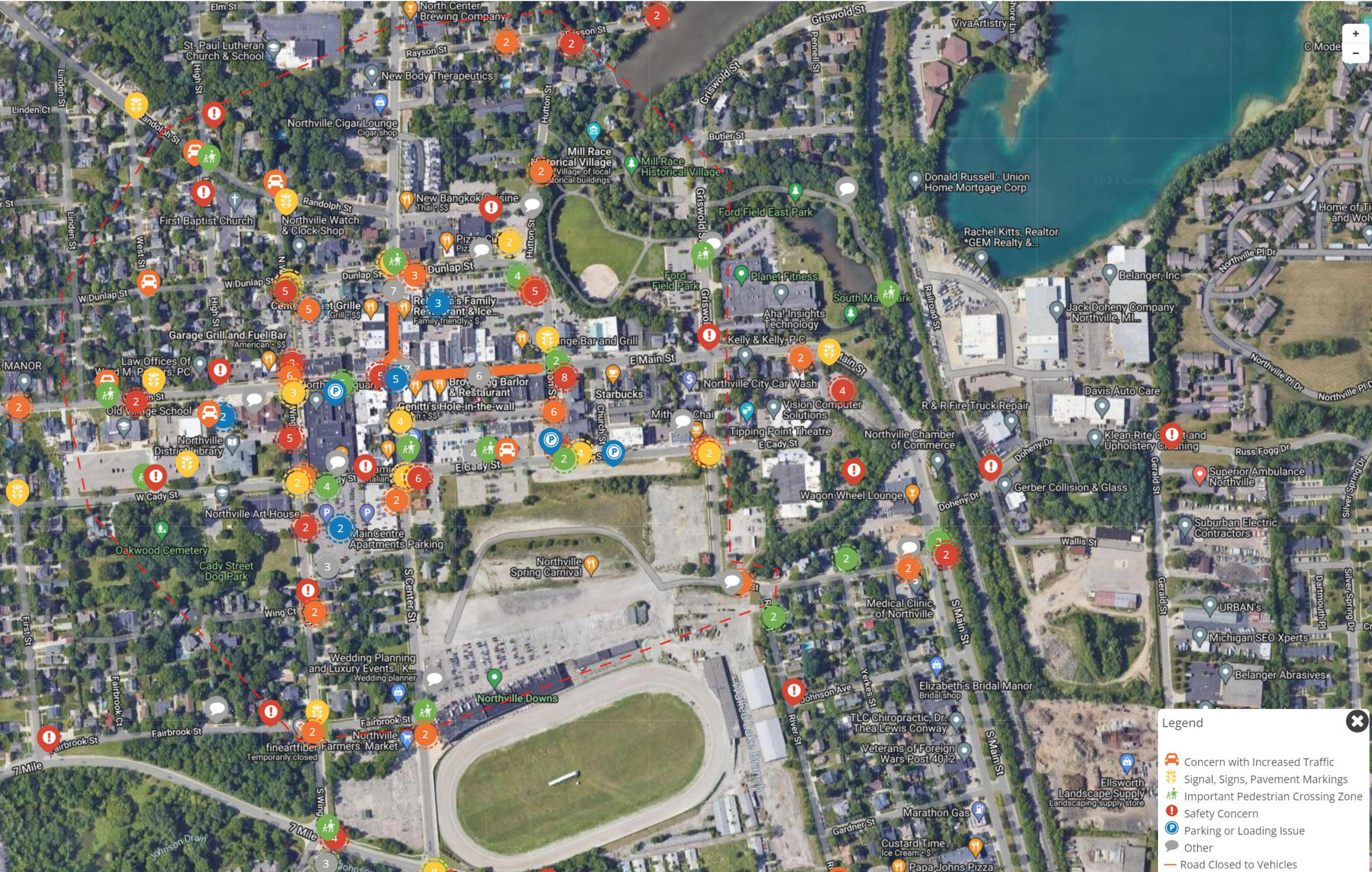
References

Federal Highway Administration. (2013). "Raised Pedestrian Crossings" in PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System. Available: http://www.pedbikesafe.org/PEDSAFE/countermeasures_detail.cfm?CM_NUM=7

Thomas, L., Thirsk, N. J., & Zegeer, C. (2016). NCHRP Synthesis 498: Application of Pedestrian Crossing Treatments for Streets and Highways. Transportation Research Board, Washington D.C.

Bushell, M., Poole, B., Zegeer, C., & Rodriguez, D. (2013). Costs for Pedestrian and Bicyclist Infrastructure Improvements: A Resource for Researchers, Engineers, Planners, and the General Public. Pedestrian and Bicycle Information Center.

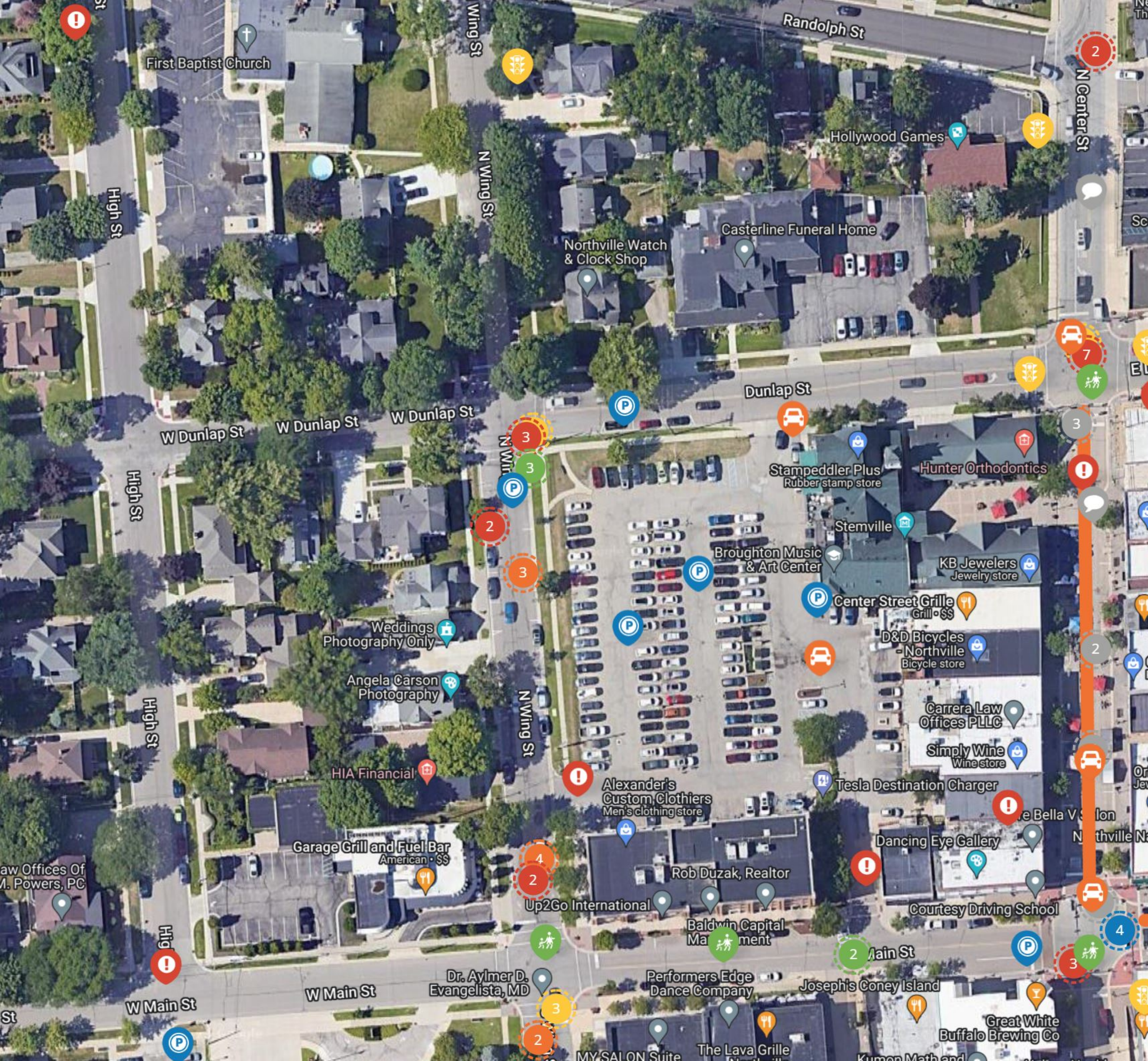
Elvik, R., Christensen, P., and Amundsen, A. (2004). "Speed and Road Accidents An Evaluation of the Power Model." Transportøkonomisk Institutt, Oslo, Norway.



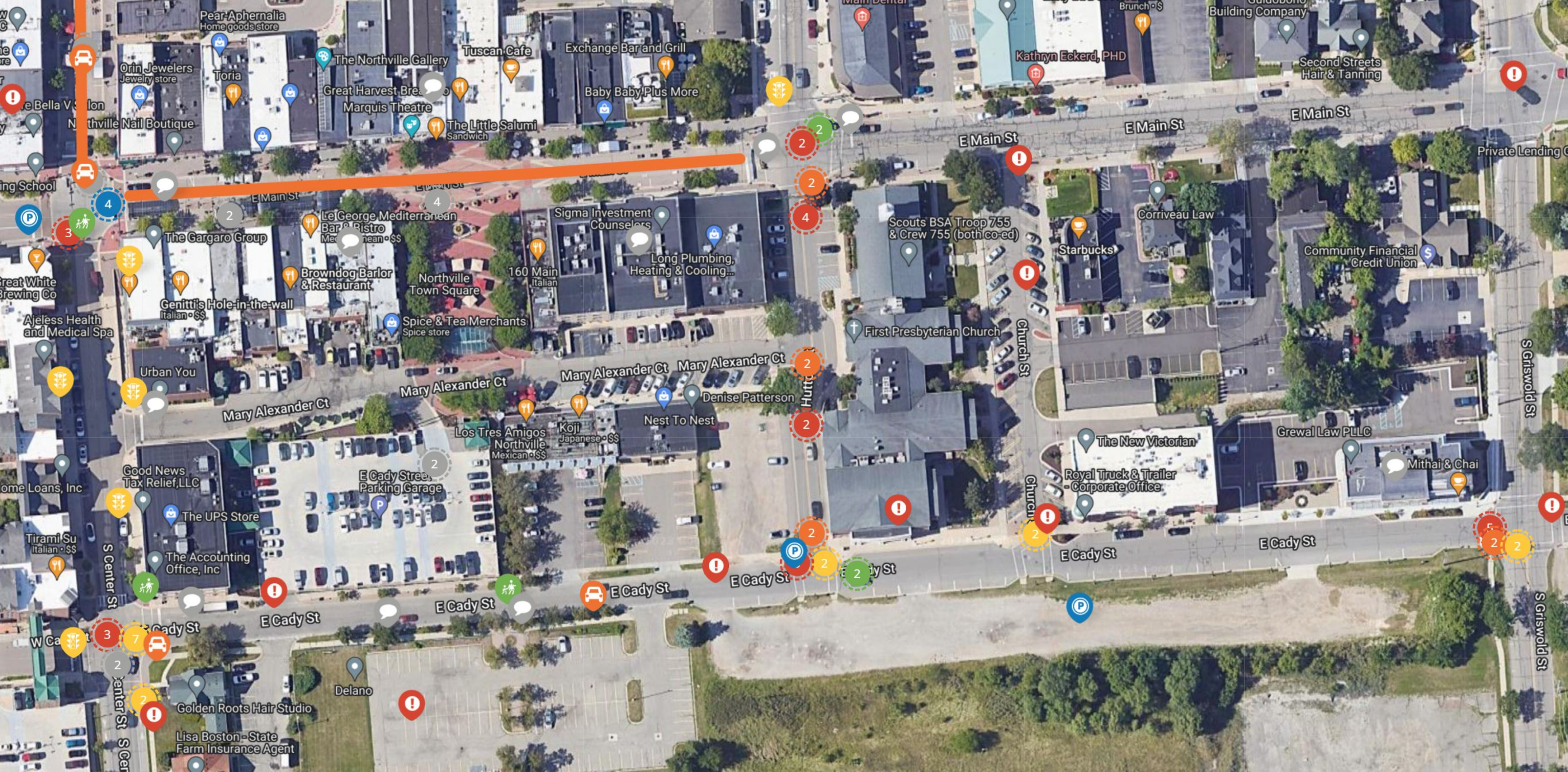
Legend

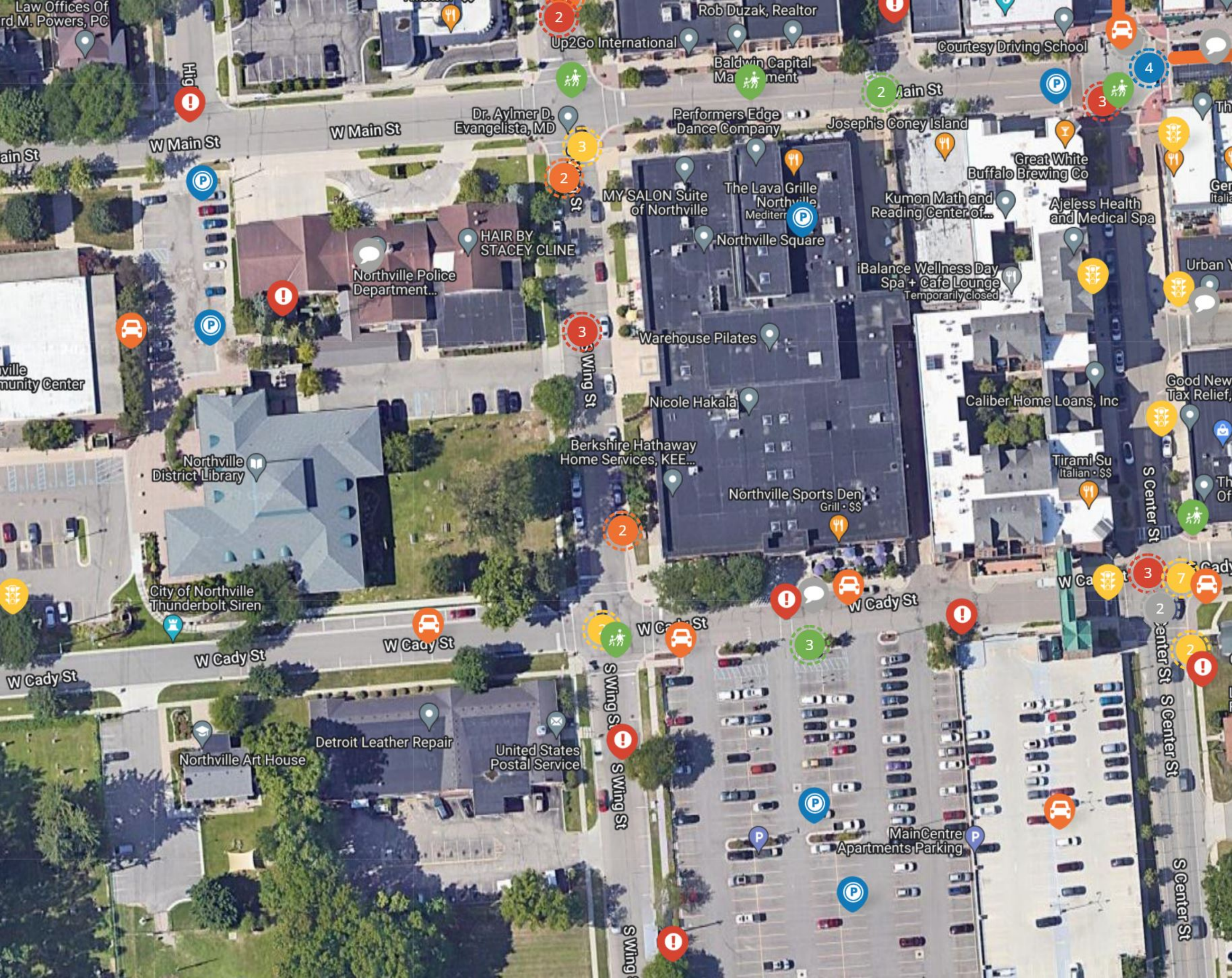
Concern with Increased Traffic

Signal, Signs, Pavement Markings









Wing & Randolph - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886942, Location: 42.433, -83.484894



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Randolph Eastbound					Randolph Westbound					Wing Northbound					
Time	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	Int
2021-10-19 7:00AM	6	17	0	23	0	1	4	0	5	0	22	1	0	23	1	51
7:15AM	17	19	0	36	0	0	8	0	8	0	24	2	0	26	0	70
7:30AM	14	19	0	33	0	0	7	0	7	1	33	0	0	33	2	73
7:45AM	23	32	0	55	0	3	22	0	25	0	30	1	0	31	0	111
Hourly Total	60	87	0	147	0	4	41	0	45	1	109	4	0	113	3	305
8:00AM	13	35	0	48	0	1	26	0	27	0	17	3	0	20	0	95
8:15AM	22	34	0	56	0	0	3	0	3	0	18	2	0	20	0	79
8:30AM	35	22	0	57	0	1	5	0	6	0	22	2	0	24	0	87
8:45AM	30	27	0	57	0	0	14	0	14	0	20	5	0	25	0	96
Hourly Total	100	118	0	218	0	2	48	0	50	0	77	12	0	89	0	357
4:00PM	26	16	0	42	0	2	29	0	31	0	37	5	0	42	2	115
4:15PM	20	19	0	39	0	3	14	0	17	0	35	7	0	42	0	98
4:30PM	16	16	0	32	0	2	21	0	23	0	60	0	0	60	1	115
4:45PM	49	47	0	96	0	1	23	0	24	0	66	4	0	70	0	190
Hourly Total	111	98	0	209	0	8	87	0	95	0	198	16	0	214	3	518
5:00PM	47	35	0	82	0	1	29	0	30	0	54	1	0	55	4	167
5:15PM	39	54	0	93	0	0	26	0	26	2	52	5	0	57	1	176
5:30PM	37	28	0	65	0	2	17	0	19	2	37	1	0	38	6	122
5:45PM	30	40	0	70	0	1	20	0	21	2	47	5	0	52	2	143
Hourly Total	153	157	0	310	0	4	92	0	96	6	190	12	0	202	13	608
Total	424	460	0	884	0	18	268	0	286	7	574	44	0	618	19	1788
% Approach	48.0%	52.0%	0%	-	-	6.3%	93.7%	0%	-	-	92.9%	7.1%	0%	-	-	-
% Total	23.7%	25.7%	0%	49.4%	-	1.0%	15.0%	0%	16.0%	-	32.1%	2.5%	0%	34.6%	-	-
Lights	423	450	0	873	-	18	263	0	281	-	562	41	0	603	-	1757
% Lights	99.8%	97.8%	0%	98.8%	-	100%	98.1%	0%	98.3%	-	97.9%	93.2%	0%	97.6%	-	98.3%
Single-Unit Trucks	0	2	0	2	-	0	1	0	1	-	3	1	0	4	-	7
% Single-Unit Trucks	0%	0.4%	0%	0.2%	-	0%	0.4%	0%	0.3%	-	0.5%	2.3%	0%	0.6%	-	0.4%
Articulated Trucks	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Buses	1	5	0	6	-	0	1	0	1	-	4	2	0	6	-	13
% Buses	0.2%	1.1%	0%	0.7%	-	0%	0.4%	0%	0.3%	-	0.7%	4.5%	0%	1.0%	-	0.7%
Bicycles on Road	0	3	0	3	-	0	3	0	3	-	5	0	0	5	-	11
% Bicycles on Road	0%	0.7%	0%	0.3%	-	0%	1.1%	0%	1.0%	-	0.9%	0%	0%	0.8%	-	0.6%
Pedestrians	-	-	-	-	0	-	-	-	-	7	-	-	-	-	-	17
% Pedestrians	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	89.5%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	2
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	10.5%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Wing & Randolph - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

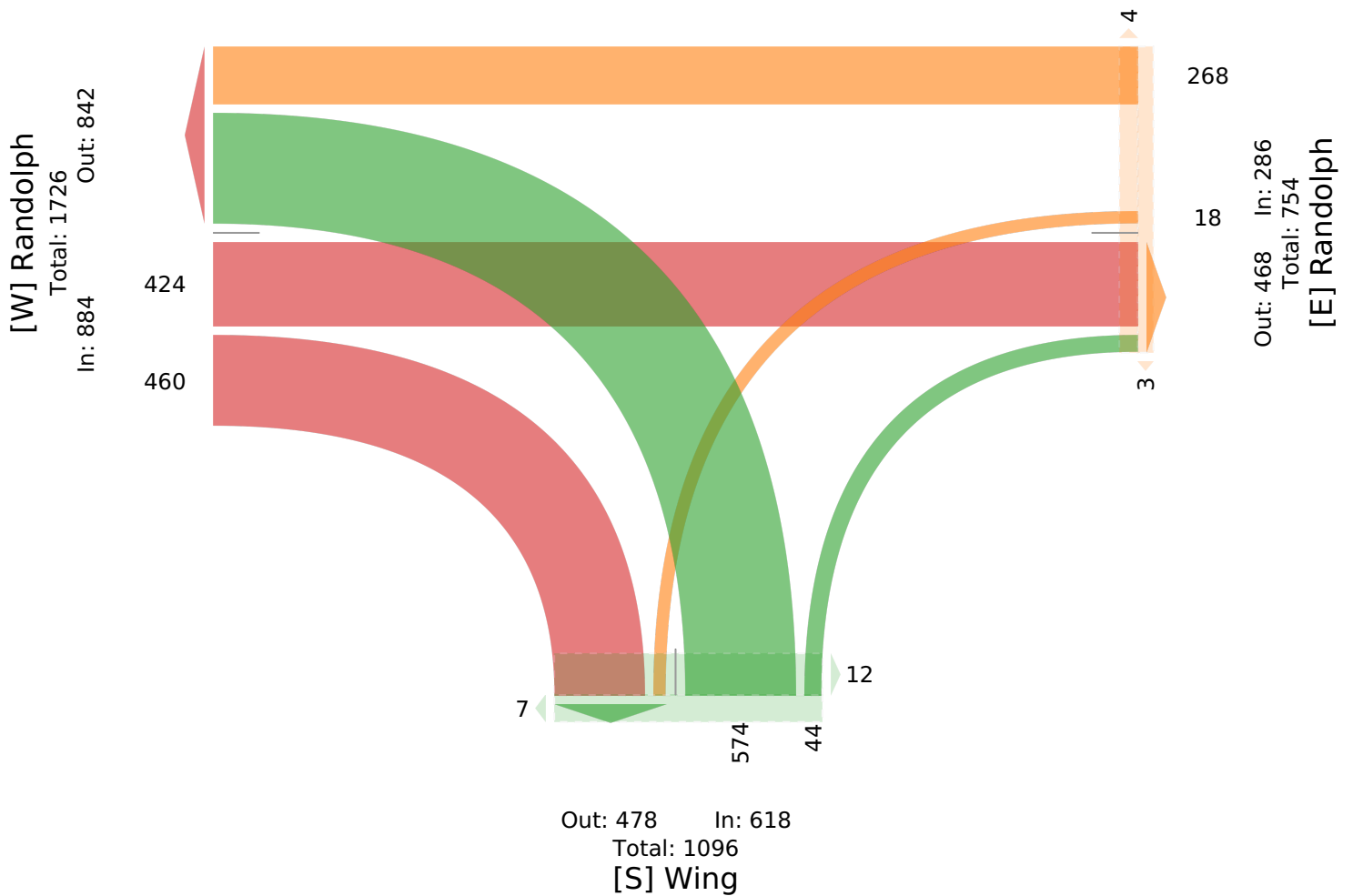
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886942, Location: 42.433, -83.484894



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Wing & Randolph - TMC

Tue Oct 19, 2021

AM Peak (7:45 AM - 8:45 AM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886942, Location: 42.433, -83.484894



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Randolph Eastbound					Randolph Westbound					Wing Northbound					
Time	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	Int
2021-10-19 7:45AM	23	32	0	55	0	3	22	0	25	0	30	1	0	31	0	111
8:00AM	13	35	0	48	0	1	26	0	27	0	17	3	0	20	0	95
8:15AM	22	34	0	56	0	0	3	0	3	0	18	2	0	20	0	79
8:30AM	35	22	0	57	0	1	5	0	6	0	22	2	0	24	0	87
Total	93	123	0	216	0	5	56	0	61	0	87	8	0	95	0	372
% Approach	43.1%	56.9%	0%	-	-	8.2%	91.8%	0%	-	-	91.6%	8.4%	0%	-	-	-
% Total	25.0%	33.1%	0%	58.1%	-	1.3%	15.1%	0%	16.4%	-	23.4%	2.2%	0%	25.5%	-	-
PHF	0.664	0.879	-	0.947	-	0.417	0.538	-	0.565	-	0.725	0.667	-	0.766	-	0.838
Lights	92	118	0	210	-	5	55	0	60	-	83	8	0	91	-	361
% Lights	98.9%	95.9%	0%	97.2%	-	100%	98.2%	0%	98.4%	-	95.4%	100%	0%	95.8%	-	97.0%
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	-	1	0	0	1	-	1
% Single-Unit Trucks	0%	0%	0%	0%	-	0%	0%	0%	0%	-	1.1%	0%	0%	1.1%	-	0.3%
Articulated Trucks	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Buses	1	5	0	6	-	0	1	0	1	-	3	0	0	3	-	10
% Buses	1.1%	4.1%	0%	2.8%	-	0%	1.8%	0%	1.6%	-	3.4%	0%	0%	3.2%	-	2.7%
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Bicycles on Road	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Wing & Randolph - TMC

Tue Oct 19, 2021

AM Peak (7:45 AM - 8:45 AM)

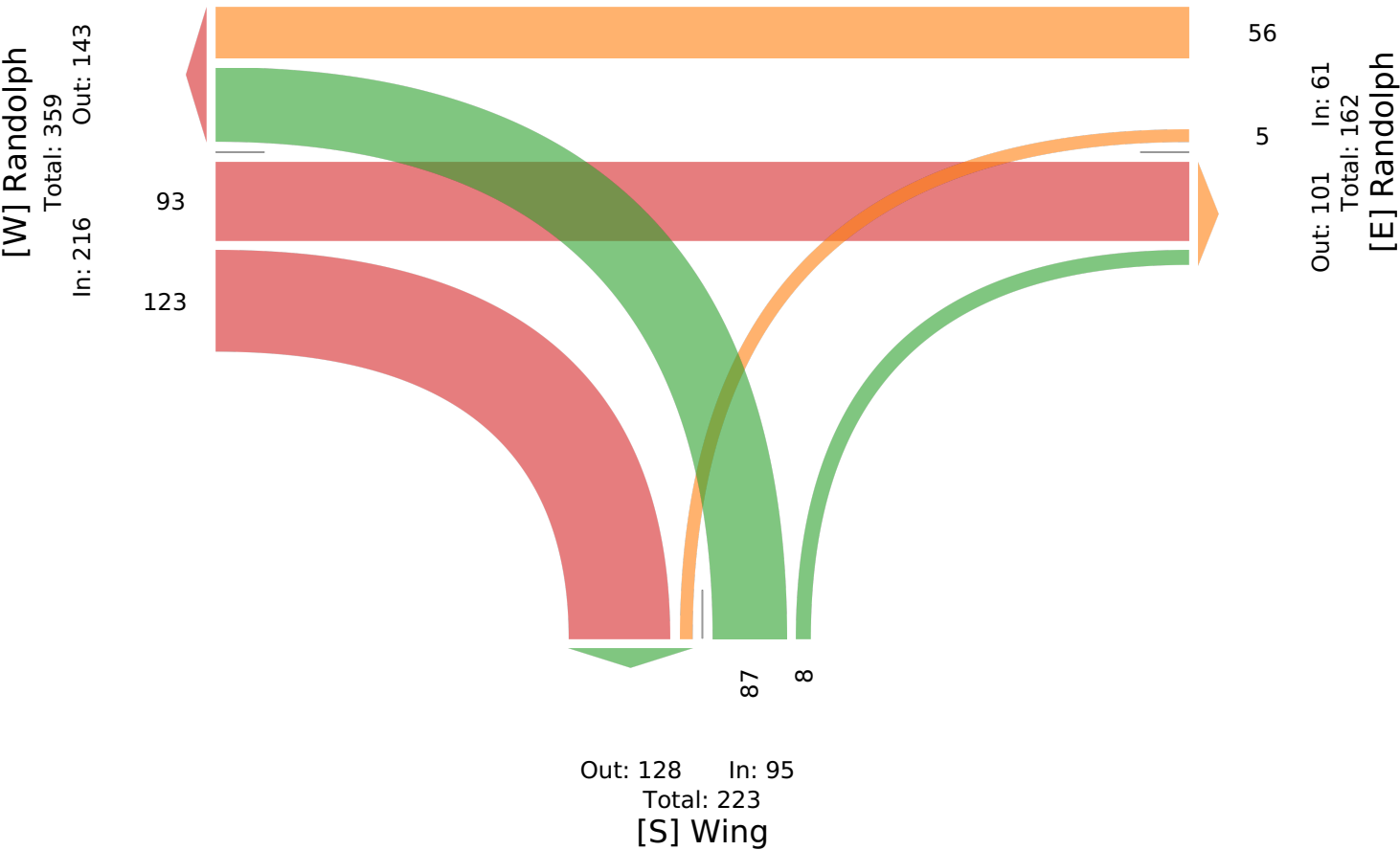
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886942, Location: 42.433, -83.484894



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Wing & Randolph - TMC

Tue Oct 19, 2021

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886942, Location: 42.433, -83.484894



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Randolph Eastbound					Randolph Westbound					Wing Northbound					
Time	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	Int
2021-10-19 4:45PM	49	47	0	96	0	1	23	0	24	0	66	4	0	70	0	190
5:00PM	47	35	0	82	0	1	29	0	30	0	54	1	0	55	4	167
5:15PM	39	54	0	93	0	0	26	0	26	2	52	5	0	57	1	176
5:30PM	37	28	0	65	0	2	17	0	19	2	37	1	0	38	6	122
Total	172	164	0	336	0	4	95	0	99	4	209	11	0	220	11	655
% Approach	51.2%	48.8%	0%	-	-	4.0%	96.0%	0%	-	-	95.0%	5.0%	0%	-	-	-
% Total	26.3%	25.0%	0%	51.3%	-	0.6%	14.5%	0%	15.1%	-	31.9%	1.7%	0%	33.6%	-	-
PHF	0.878	0.759	-	0.867	-	0.500	0.802	-	0.808	-	0.784	0.550	-	0.779	-	0.853
Lights	172	160	0	332	-	4	93	0	97	-	206	10	0	216	-	645
% Lights	100%	97.6%	0%	98.8%	-	100%	97.9%	0%	98.0%	-	98.6%	90.9%	0%	98.2%	-	98.5%
Single-Unit Trucks	0	1	0	1	-	0	0	0	0	-	1	0	0	1	-	2
% Single-Unit Trucks	0%	0.6%	0%	0.3%	-	0%	0%	0%	0%	-	0.5%	0%	0%	0.5%	-	0.3%
Articulated Trucks	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Buses	0	0	0	0	-	0	0	0	0	-	0	1	0	1	-	1
% Buses	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	9.1%	0%	0.5%	-	0.2%
Bicycles on Road	0	3	0	3	-	0	2	0	2	-	2	0	0	2	-	7
% Bicycles on Road	0%	1.8%	0%	0.9%	-	0%	2.1%	0%	2.0%	-	1.0%	0%	0%	0.9%	-	1.1%
Pedestrians	-	-	-	-	0	-	-	-	-	4	-	-	-	-	10	
% Pedestrians	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	90.9%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	1	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	9.1%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Wing & Randolph - TMC

Tue Oct 19, 2021

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

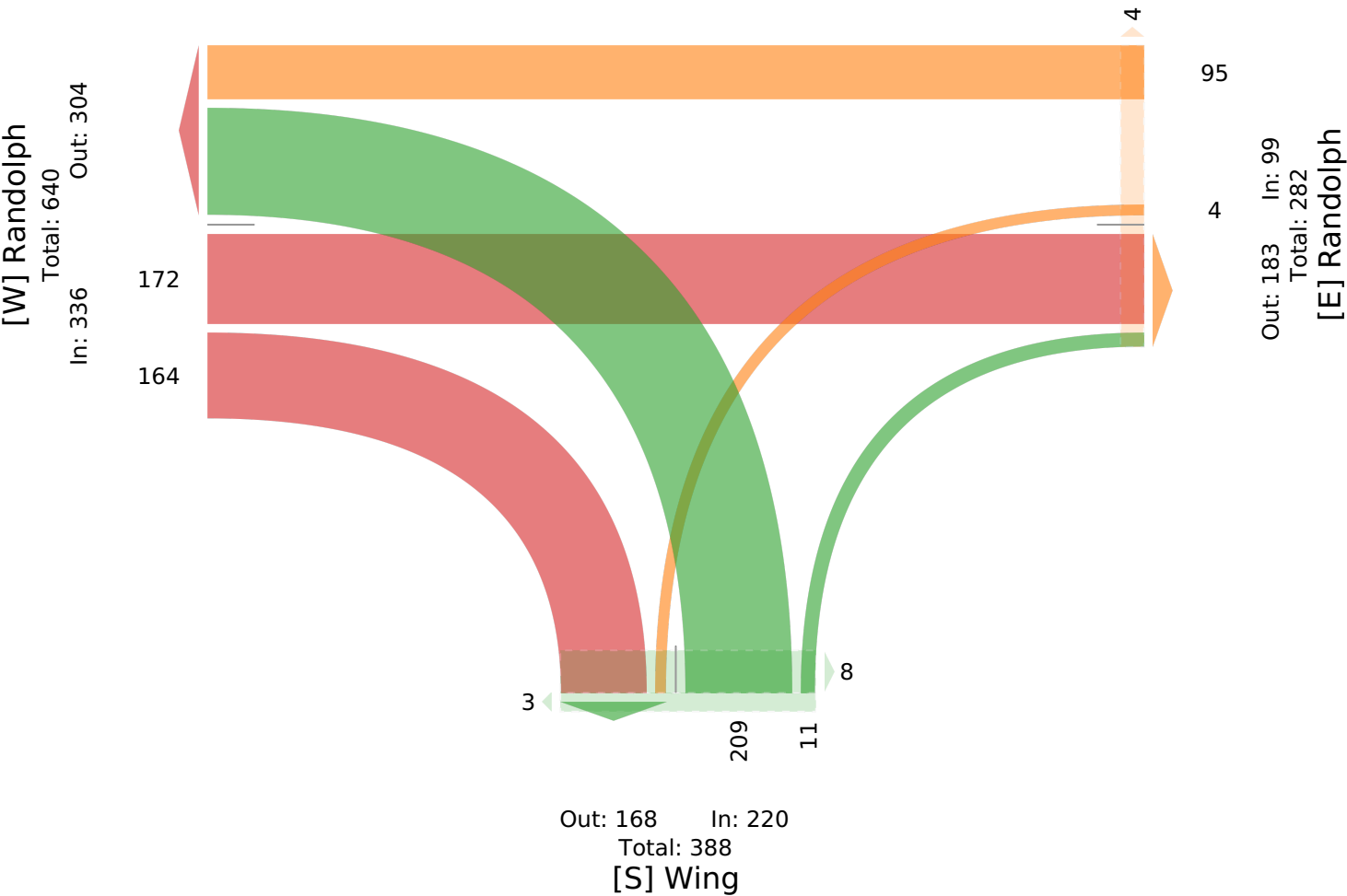
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886942, Location: 42.433, -83.484894



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Randolph & Center - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886943, Location: 42.432774, -83.483249



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Randolph Eastbound						Randolph Westbound						Center Northbound						Center Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 7:00AM	2	0	5	0	7	0	0	0	0	0	0	0	3	39	1	0	43	0	1	38	2	0	41	0	91
7:15AM	6	0	12	0	18	0	0	0	0	0	0	0	5	47	0	0	52	0	0	39	3	0	42	0	112
7:30AM	3	0	12	0	15	0	0	0	0	0	0	0	3	56	1	0	60	2	2	62	4	0	68	0	143
7:45AM	6	0	18	0	24	0	0	0	2	0	2	0	2	87	0	0	89	0	1	116	22	0	139	0	254
Hourly Total	17	0	47	0	64	0	0	0	2	0	2	0	13	229	2	0	244	2	4	255	31	0	290	0	600
8:00AM	6	0	9	0	15	1	1	0	0	0	1	1	7	75	0	0	82	0	1	131	19	0	151	0	249
8:15AM	1	0	21	0	22	2	2	0	1	0	3	1	2	85	1	0	88	0	1	74	1	0	76	0	189
8:30AM	7	2	28	0	37	2	1	0	2	0	3	2	4	60	0	0	64	0	2	47	2	0	51	0	155
8:45AM	10	1	24	0	35	4	2	2	2	0	6	1	10	58	1	0	69	0	3	76	4	0	83	0	193
Hourly Total	24	3	82	0	109	9	6	2	5	0	13	5	23	278	2	0	303	0	7	328	26	0	361	0	786
4:00PM	12	1	18	0	31	7	1	5	9	0	15	5	16	116	2	0	134	0	2	88	10	0	100	1	280
4:15PM	9	3	17	0	29	3	1	2	5	0	8	1	7	78	1	0	86	0	3	91	8	0	102	0	225
4:30PM	2	0	15	0	17	6	5	3	5	0	13	1	15	98	2	0	115	0	4	84	9	0	97	0	242
4:45PM	19	2	31	0	52	1	1	0	9	0	10	0	13	108	1	0	122	0	0	55	13	0	68	0	252
Hourly Total	42	6	81	0	129	17	8	10	28	0	46	7	51	400	6	0	457	0	9	318	40	0	367	1	999
5:00PM	14	3	32	0	49	4	4	3	7	0	14	2	15	85	2	0	102	1	2	46	8	0	56	0	221
5:15PM	11	2	31	0	44	2	3	5	5	0	13	3	10	117	1	0	128	0	2	52	10	0	64	0	249
5:30PM	7	7	23	0	37	6	4	1	6	0	11	4	10	99	3	0	112	4	5	96	9	0	110	2	270
5:45PM	8	0	26	0	34	3	2	4	7	0	13	3	12	92	2	0	106	0	7	107	4	0	118	0	271
Hourly Total	40	12	112	0	164	15	13	13	25	0	51	12	47	393	8	0	448	5	16	301	31	0	348	2	1011
Total	123	21	322	0	466	41	27	25	60	0	112	24	134	1300	18	0	1452	7	36	1202	128	0	1366	3	3396
% Approach	26.4%	4.5%	69.1%	0%	-	-	24.1%	22.3%	53.6%	0%	-	-	9.2%	89.5%	1.2%	0%	-	-	2.6%	88.0%	9.4%	0%	-	-	-
% Total	3.6%	0.6%	9.5%	0%	13.7%	-	0.8%	0.7%	1.8%	0%	3.3%	-	3.9%	38.3%	0.5%	0%	42.8%	-	1.1%	35.4%	3.8%	0%	40.2%	-	-
Lights	120	21	321	0	462	-	26	25	60	0	111	-	131	1279	18	0	1428	-	36	1185	125	0	1346	-	3347
% Lights	97.6%	100%	99.7%	0%	99.1%	-	96.3%	100%	100%	0%	99.1%	-	97.8%	98.4%	100%	0%	98.3%	-	100%	98.6%	97.7%	0%	98.5%	-	98.6%
Single-Unit Trucks	1	0	0	0	1	-	0	0	0	0	0	-	1	11	0	0	12	-	0	8	1	0	9	-	22
% Single-Unit Trucks	0.8%	0%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0.7%	0.8%	0%	0%	0.8%	-	0%	0.7%	0.8%	0%	0.7%	-	0.6%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses	2	0	1	0	3	-	1	0	0	0	1	-	1	4	0	0	5	-	0	4	0	0	4	-	13
% Buses	1.6%	0%	0.3%	0%	0.6%	-	3.7%	0%	0%	0%	0.9%	-	0.7%	0.3%	0%	0%	0.3%	-	0%	0.3%	0%	0%	0.3%	-	0.4%
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	1	6	0	0	7	-	0	5	2	0	7	-	14
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.7%	0.5%	0%	0%	0.5%	-	0%	0.4%	1.6%	0%	0.5%	-	0.4%
Pedestrians	-	-	-	-	-	33	-	-	-	-	-	23	-	-	-	-	-	6	-	-	-	-	-	3	
% Pedestrians	-	-	-	-	-	80.5%	-	-	-	-	-	95.8%	-	-	-	-	-	85.7%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	8	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	19.5%	-	-	-	-	-	4.2%	-	-	-	-	-	14.3%	-	-	-	-	-	0%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Randolph & Center - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

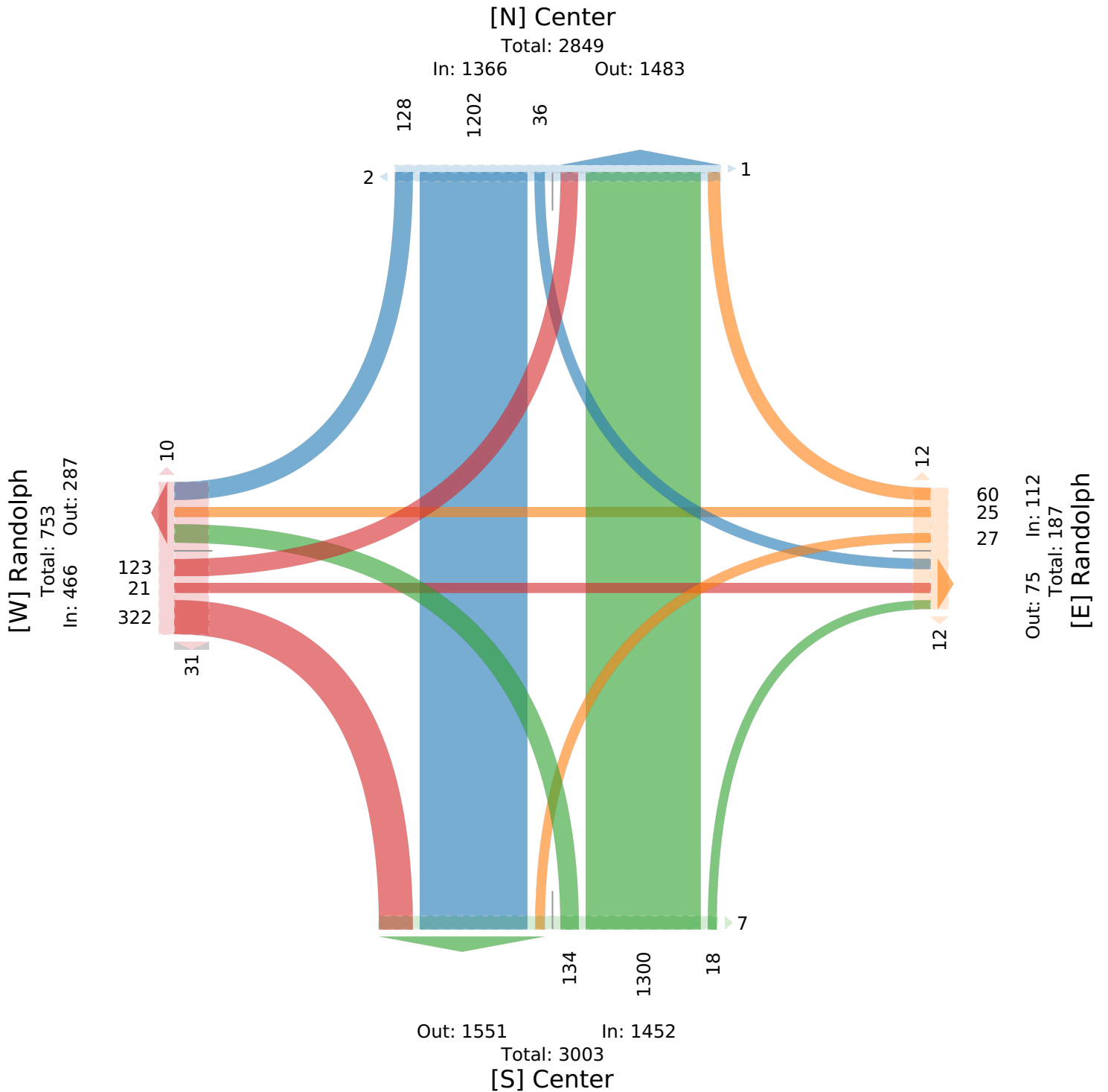
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886943, Location: 42.432774, -83.483249



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Randolph & Center - TMC

Tue Oct 19, 2021

AM Peak (7:45 AM - 8:45 AM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886943, Location: 42.432774, -83.483249



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Randolph Eastbound						Randolph Westbound						Center Northbound						Center Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 7:45AM	6	0	18	0	24	0	0	0	2	0	2	0	2	87	0	0	89	0	1	116	22	0	139	0	254
8:00AM	6	0	9	0	15	1	1	0	0	0	1	1	7	75	0	0	82	0	1	131	19	0	151	0	249
8:15AM	1	0	21	0	22	2	2	0	1	0	3	1	2	85	1	0	88	0	1	74	1	0	76	0	189
8:30AM	7	2	28	0	37	2	1	0	2	0	3	2	4	60	0	0	64	0	2	47	2	0	51	0	155
Total	20	2	76	0	98	5	4	0	5	0	9	4	15	307	1	0	323	0	5	368	44	0	417	0	847
% Approach	20.4%	2.0%	77.6%	0%	-	-	44.4%	0%	55.6%	0%	-	-	4.6%	95.0%	0.3%	0%	-	-	1.2%	88.2%	10.6%	0%	-	-	-
% Total	2.4%	0.2%	9.0%	0%	11.6%	-	0.5%	0%	0.6%	0%	1.1%	-	1.8%	36.2%	0.1%	0%	38.1%	-	0.6%	43.4%	5.2%	0%	49.2%	-	-
PHF	0.714	0.250	0.679	-	0.662	-	0.500	-	0.625	-	0.750	-	0.536	0.882	0.250	-	0.907	-	0.625	0.700	0.500	-	0.689	-	0.833
Lights	20	2	75	0	97	-	4	0	5	0	9	-	14	301	1	0	316	-	5	360	44	0	409	-	831
% Lights	100%	100%	98.7%	0%	99.0%	-	100%	0%	100%	0%	100%	-	93.3%	98.0%	100%	0%	97.8%	-	100%	97.8%	100%	0%	98.1%	-	98.1%
Single-Unit Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	5	0	0	5	-	0	4	0	0	4	-	9
% Single-Unit Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	1.6%	0%	0%	1.5%	-	0%	1.1%	0%	0%	1.0%	-	1.1%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses	0	0	1	0	1	-	0	0	0	0	0	-	1	1	0	0	2	-	0	3	0	0	3	-	6
% Buses	0%	0%	1.3%	0%	1.0%	-	0%	0%	0%	0%	0%	-	6.7%	0.3%	0%	0%	0.6%	-	0%	0.8%	0%	0%	0.7%	-	0.7%
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	1	-	1
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0.3%	0%	0%	0.2%	-	0.1%
Pedestrians	-	-	-	-	-	4	-	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	80.0%	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	20.0%	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Randolph & Center - TMC

Tue Oct 19, 2021

AM Peak (7:45 AM - 8:45 AM)

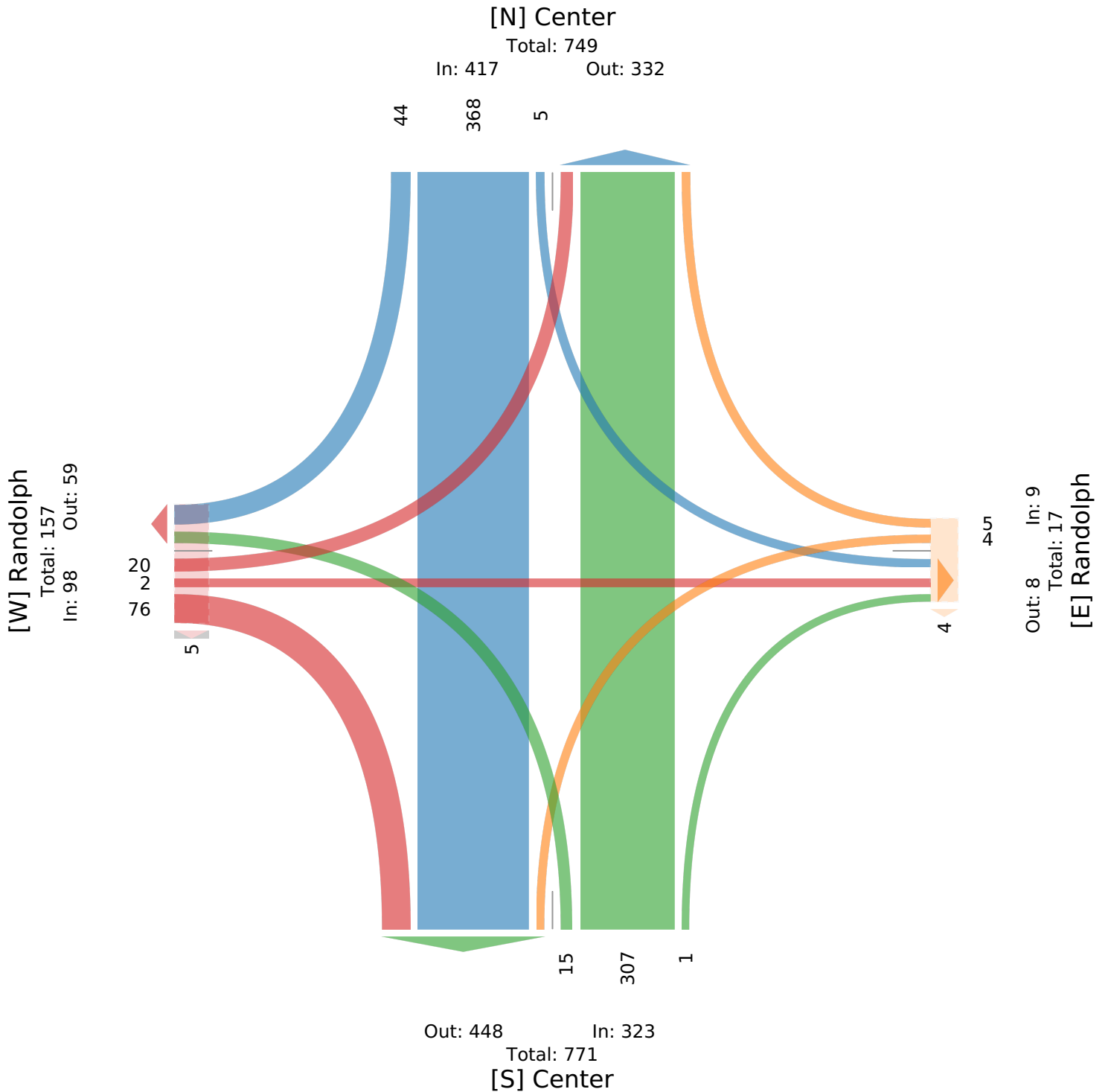
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886943, Location: 42.432774, -83.483249



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Randolph & Center - TMC

Tue Oct 19, 2021

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886943, Location: 42.432774, -83.483249



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Randolph Eastbound						Randolph Westbound						Center Northbound						Center Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 5:00PM	14	3	32	0	49	4	4	3	7	0	14	2	15	85	2	0	102	1	2	46	8	0	56	0	221
5:15PM	11	2	31	0	44	2	3	5	5	0	13	3	10	117	1	0	128	0	2	52	10	0	64	0	249
5:30PM	7	7	23	0	37	6	4	1	6	0	11	4	10	99	3	0	112	4	5	96	9	0	110	2	270
5:45PM	8	0	26	0	34	3	2	4	7	0	13	3	12	92	2	0	106	0	7	107	4	0	118	0	271
Total	40	12	112	0	164	15	13	13	25	0	51	12	47	393	8	0	448	5	16	301	31	0	348	2	1011
% Approach	24.4%	7.3%	68.3%	0%	-	-	25.5%	25.5%	49.0%	0%	-	-	10.5%	87.7%	1.8%	0%	-	-	4.6%	86.5%	8.9%	0%	-	-	-
% Total	4.0%	1.2%	11.1%	0%	16.2%	-	1.3%	1.3%	2.5%	0%	5.0%	-	4.6%	38.9%	0.8%	0%	44.3%	-	1.6%	29.8%	3.1%	0%	34.4%	-	-
PHF	0.714	0.429	0.875	-	0.837	-	0.813	0.650	0.893	-	0.911	-	0.767	0.829	0.667	-	0.870	-	0.571	0.696	0.833	-	0.729	-	0.923
Lights	40	12	112	0	164	-	13	13	25	0	51	-	46	388	8	0	442	-	16	295	30	0	341	-	998
% Lights	100%	100%	100%	0%	100%	-	100%	100%	100%	0%	100%	-	97.9%	98.7%	100%	0%	98.7%	-	100%	98.0%	96.8%	0%	98.0%	-	98.7%
Single-Unit Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	3	0	0	3	-	3
% Single-Unit Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	1.0%	0%	0%	0.9%	-	0.3%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	1	5	0	0	6	-	0	3	1	0	4	-	10
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	2.1%	1.3%	0%	0%	1.3%	-	0%	1.0%	3.2%	0%	1.1%	-	1.0%
Pedestrians	-	-	-	-	-	9	-	-	-	-	-	11	-	-	-	-	-	4	-	-	-	-	-	2	
% Pedestrians	-	-	-	-	-	60.0%	-	-	-	-	-	91.7%	-	-	-	-	-	80.0%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	6	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	40.0%	-	-	-	-	-	8.3%	-	-	-	-	-	20.0%	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Randolph & Center - TMC

Tue Oct 19, 2021

PM Peak (5 PM - 6 PM) - Overall Peak Hour

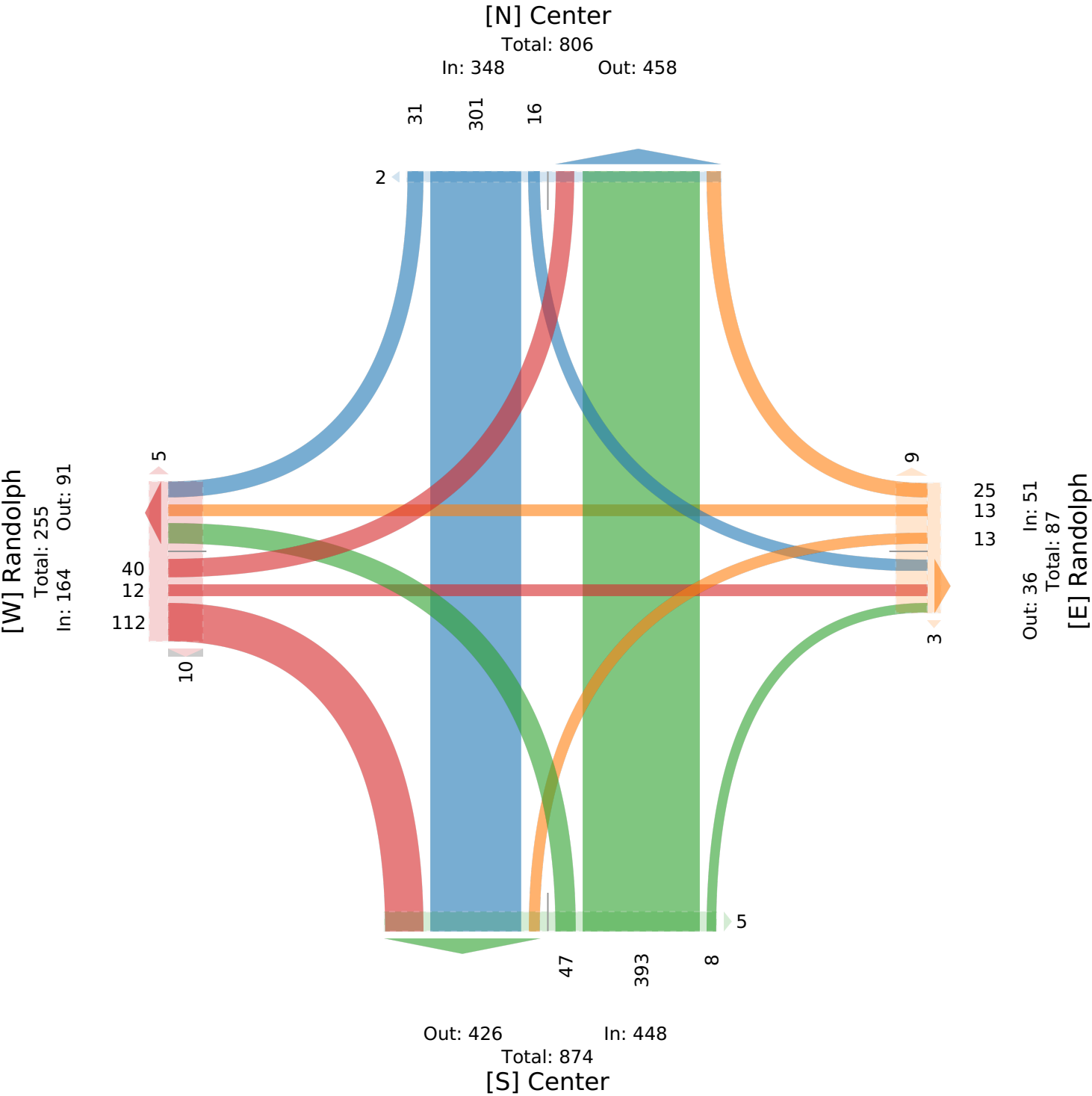
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886943, Location: 42.432774, -83.483249



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Wing & Dunlap - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886941, Location: 42.432119, -83.484794



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Dunlap Eastbound						Dunlap Westbound						Wing Northbound						Wing Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 7:00AM	0	6	1	0	7	0	24	6	2	0	32	1	0	21	15	0	36	0	1	17	0	0	18	0	93
7:15AM	0	12	0	0	12	0	24	12	2	0	38	0	0	23	23	0	46	1	1	16	0	0	17	0	113
7:30AM	0	15	0	0	15	0	33	8	3	0	44	1	0	30	18	0	48	1	3	19	0	0	22	0	129
7:45AM	0	25	0	0	25	1	72	14	3	0	89	0	1	30	47	0	78	1	3	32	0	0	35	0	227
Hourly Total	0	58	1	0	59	1	153	40	10	0	203	2	1	104	103	0	208	3	8	84	0	0	92	0	562
8:00AM	0	17	1	0	18	0	66	25	3	0	94	0	2	16	46	0	64	2	3	33	0	0	36	0	212
8:15AM	0	20	0	0	20	0	35	12	2	0	49	0	1	19	50	0	70	1	3	31	0	0	34	0	173
8:30AM	0	15	0	0	15	0	28	13	4	0	45	1	2	19	30	0	51	1	4	18	0	0	22	1	133
8:45AM	0	17	2	0	19	1	39	20	3	0	62	2	1	24	32	0	57	0	5	23	0	0	28	3	166
Hourly Total	0	69	3	0	72	1	168	70	12	0	250	3	6	78	158	0	242	4	15	105	0	0	120	4	684
4:00PM	0	23	4	0	27	1	49	28	4	0	81	3	0	37	54	0	91	1	1	18	0	0	19	6	218
4:15PM	0	11	0	0	11	5	52	20	5	0	77	0	0	39	39	0	78	7	4	17	0	0	21	1	187
4:30PM	0	12	2	0	14	1	35	28	9	0	72	0	1	53	59	0	113	7	2	14	2	0	18	2	217
4:45PM	0	19	3	0	22	1	31	19	8	0	58	0	2	61	54	0	117	4	7	39	1	0	47	1	244
Hourly Total	0	65	9	0	74	8	167	95	26	0	288	3	3	190	206	0	399	19	14	88	3	0	105	10	866
5:00PM	0	16	1	0	17	0	31	17	5	0	53	5	4	51	49	0	104	0	3	33	2	0	38	4	212
5:15PM	0	21	6	0	27	2	40	28	6	0	74	4	2	52	61	0	115	9	8	48	0	0	56	4	272
5:30PM	0	18	2	0	20	0	47	25	2	0	74	2	3	37	47	0	87	4	4	26	1	0	31	3	212
5:45PM	0	17	2	0	19	1	60	28	11	0	99	3	0	43	50	0	93	5	12	28	0	0	40	3	251
Hourly Total	0	72	11	0	83	3	178	98	24	0	300	14	9	183	207	0	399	18	27	135	3	0	165	14	947
Total	0	264	24	0	288	13	666	303	72	0	1041	22	19	555	674	0	1248	44	64	412	6	0	482	28	3059
% Approach	0%	91.7%	8.3%	0%	-	-	64.0%	29.1%	6.9%	0%	-	-	1.5%	44.5%	54.0%	0%	-	-	13.3%	85.5%	1.2%	0%	-	-	-
% Total	0%	8.6%	0.8%	0%	9.4%	-	21.8%	9.9%	2.4%	0%	34.0%	-	0.6%	18.1%	22.0%	0%	40.8%	-	2.1%	13.5%	0.2%	0%	15.8%	-	-
Lights	0	261	23	0	284	-	662	299	72	0	1033	-	19	540	664	0	1223	-	64	400	6	0	470	-	3010
% Lights	0%	98.9%	95.8%	0%	98.6%	-	99.4%	98.7%	100%	0%	99.2%	-	100%	97.3%	98.5%	0%	98.0%	-	100%	97.1%	100%	0%	97.5%	-	98.4%
Single-Unit Trucks	0	0	0	0	0	-	2	1	0	0	3	-	0	3	7	0	10	-	0	2	0	0	2	-	15
% Single-Unit Trucks	0%	0%	0%	0%	0%	-	0.3%	0.3%	0%	0%	0.3%	-	0%	0.5%	1.0%	0%	0.8%	-	0%	0.5%	0%	0%	0.4%	-	0.5%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses	0	1	0	0	1	-	0	1	0	0	1	-	0	6	2	0	8	-	0	5	0	0	5	-	15
% Buses	0%	0.4%	0%	0%	0.3%	-	0%	0.3%	0%	0%	0.1%	-	0%	1.1%	0.3%	0%	0.6%	-	0%	1.2%	0%	0%	1.0%	-	0.5%
Bicycles on Road	0	2	1	0	3	-	2	2	0	0	4	-	0	6	1	0	7	-	0	5	0	0	5	-	19
% Bicycles on Road	0%	0.8%	4.2%	0%	1.0%	-	0.3%	0.7%	0%	0%	0.4%	-	0%	1.1%	0.1%	0%	0.6%	-	0%	1.2%	0%	0%	1.0%	-	0.6%
Pedestrians	-	-	-	-	-	13	-	-	-	-	-	22	-	-	-	-	-	44	-	-	-	-	-	25	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	89.3%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	3	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	10.7%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Wing & Dunlap - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886941, Location: 42.432119, -83.484794



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

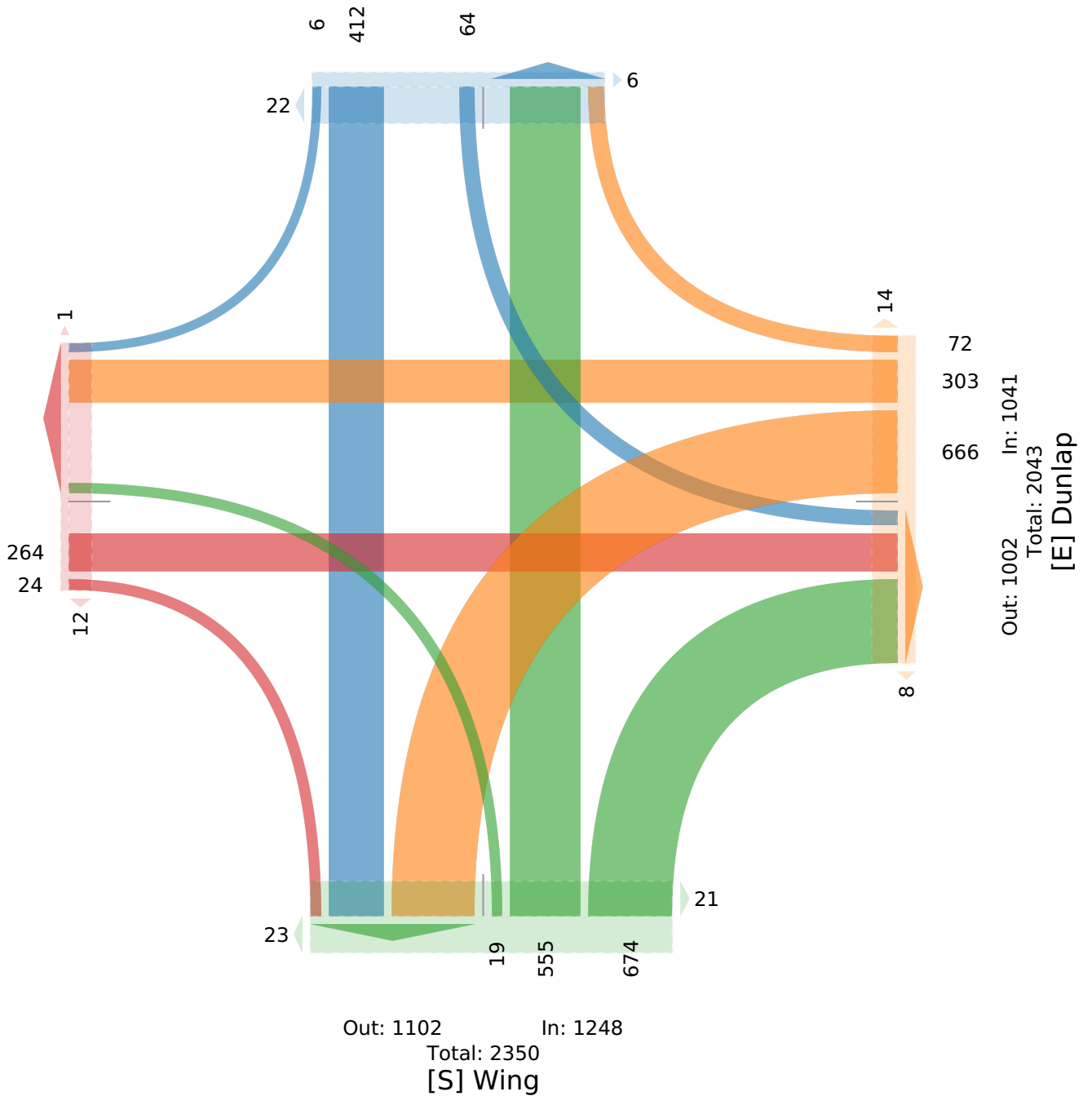
[N] Wing

Total: 1109

In: 482 Out: 627

[W] Dunlap

Total: 616
In: 288 Out: 328



Wing & Dunlap - TMC

Tue Oct 19, 2021

AM Peak (7:45 AM - 8:45 AM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians,
Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886941, Location: 42.432119, -83.484794



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Dunlap Eastbound						Dunlap Westbound						Wing Northbound						Wing Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 7:45AM	0	25	0	0	25	1	72	14	3	0	89	0	1	30	47	0	78	1	3	32	0	0	35	0	227
8:00AM	0	17	1	0	18	0	66	25	3	0	94	0	2	16	46	0	64	2	3	33	0	0	36	0	212
8:15AM	0	20	0	0	20	0	35	12	2	0	49	0	1	19	50	0	70	1	3	31	0	0	34	0	173
8:30AM	0	15	0	0	15	0	28	13	4	0	45	1	2	19	30	0	51	1	4	18	0	0	22	1	133
Total	0	77	1	0	78	1	201	64	12	0	277	1	6	84	173	0	263	5	13	114	0	0	127	1	745
% Approach	0%	98.7%	1.3%	0%	-	-	72.6%	23.1%	4.3%	0%	-	-	2.3%	31.9%	65.8%	0%	-	-	10.2%	89.8%	0%	0%	-	-	-
% Total	0%	10.3%	0.1%	0%	10.5%	-	27.0%	8.6%	1.6%	0%	37.2%	-	0.8%	11.3%	23.2%	0%	35.3%	-	1.7%	15.3%	0%	0%	17.0%	-	-
PHF	-	0.770	0.250	-	0.780	-	0.698	0.630	0.750	-	0.734	-	0.750	0.700	0.865	-	0.843	-	0.813	0.864	-	-	0.882	-	0.823
Lights	0	77	1	0	78	-	201	63	12	0	276	-	6	80	170	0	256	-	13	109	0	0	122	-	732
% Lights	0%	100%	100%	0%	100%	-	100%	98.4%	100%	0%	99.6%	-	100%	95.2%	98.3%	0%	97.3%	-	100%	95.6%	0%	0%	96.1%	-	98.3%
Single-Unit Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	1	3	0	4	-	0	0	0	0	0	-	4
% Single-Unit Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	1.2%	1.7%	0%	1.5%	-	0%	0%	0%	0%	0%	-	0.5%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses	0	0	0	0	0	-	0	0	0	0	0	-	0	3	0	0	3	-	0	5	0	0	5	-	8
% Buses	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	3.6%	0%	0%	1.1%	-	0%	4.4%	0%	0%	3.9%	-	1.1%
Bicycles on Road	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	0	0	0	0	0	-	1
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	1.6%	0%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.1%
Pedestrians	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	5	-	-	-	-	-	1	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Wing & Dunlap - TMC

Tue Oct 19, 2021

AM Peak (7:45 AM - 8:45 AM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886941, Location: 42.432119, -83.484794



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

[N] Wing

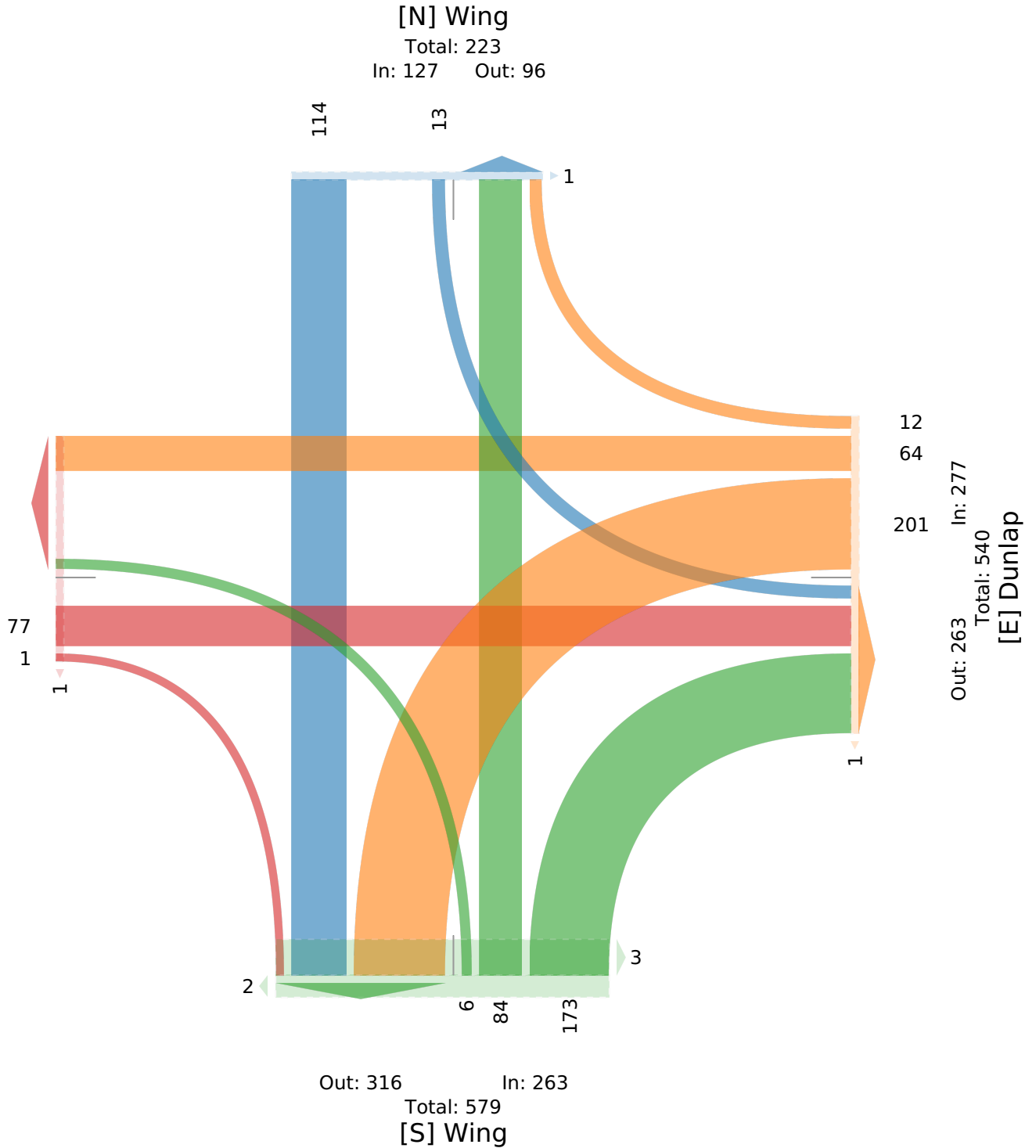
Total: 223

In: 127 Out: 96

[W] Dunlap

Total: 148

In: 78 Out: 70



Wing & Dunlap - TMC

Tue Oct 19, 2021

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886941, Location: 42.432119, -83.484794



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Dunlap Eastbound						Dunlap Westbound						Wing Northbound						Wing Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 5:00PM	0	16	1	0	17	0	31	17	5	0	53	5	4	51	49	0	104	0	3	33	2	0	38	4	212
5:15PM	0	21	6	0	27	2	40	28	6	0	74	4	2	52	61	0	115	9	8	48	0	0	56	4	272
5:30PM	0	18	2	0	20	0	47	25	2	0	74	2	3	37	47	0	87	4	4	26	1	0	31	3	212
5:45PM	0	17	2	0	19	1	60	28	11	0	99	3	0	43	50	0	93	5	12	28	0	0	40	3	251
Total	0	72	11	0	83	3	178	98	24	0	300	14	9	183	207	0	399	18	27	135	3	0	165	14	947
% Approach	0%	86.7%	13.3%	0%	-	-	59.3%	32.7%	8.0%	0%	-	-	2.3%	45.9%	51.9%	0%	-	-	16.4%	81.8%	1.8%	0%	-	-	-
% Total	0%	7.6%	1.2%	0%	8.8%	-	18.8%	10.3%	2.5%	0%	31.7%	-	1.0%	19.3%	21.9%	0%	42.1%	-	2.9%	14.3%	0.3%	0%	17.4%	-	-
PHF	-	0.857	0.458	-	0.769	-	0.733	0.866	0.545	-	0.750	-	0.563	0.877	0.848	-	0.866	-	0.563	0.697	0.375	-	0.732	-	0.867
Lights	0	72	11	0	83	-	175	97	24	0	296	-	9	178	207	0	394	-	27	130	3	0	160	-	933
% Lights	0%	100%	100%	0%	100%	-	98.3%	99.0%	100%	0%	98.7%	-	100%	97.3%	100%	0%	98.7%	-	100%	96.3%	100%	0%	97.0%	-	98.5%
Single-Unit Trucks	0	0	0	0	0	-	1	0	0	0	1	-	0	1	0	0	1	-	0	1	0	0	1	-	3
% Single-Unit Trucks	0%	0%	0%	0%	0%	-	0.6%	0%	0%	0%	0.3%	-	0%	0.5%	0%	0%	0.3%	-	0%	0.7%	0%	0%	0.6%	-	0.3%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Bicycles on Road	0	0	0	0	0	-	2	1	0	0	3	-	0	4	0	0	4	-	0	4	0	0	4	-	11
% Bicycles on Road	0%	0%	0%	0%	0%	-	1.1%	1.0%	0%	0%	1.0%	-	0%	2.2%	0%	0%	1.0%	-	0%	3.0%	0%	0%	2.4%	-	1.2%
Pedestrians	-	-	-	-	-	3	-	-	-	-	-	14	-	-	-	-	-	18	-	-	-	-	-	11	-
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	78.6%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	3	-
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	21.4%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Wing & Dunlap - TMC

Tue Oct 19, 2021

PM Peak (5 PM - 6 PM) - Overall Peak Hour

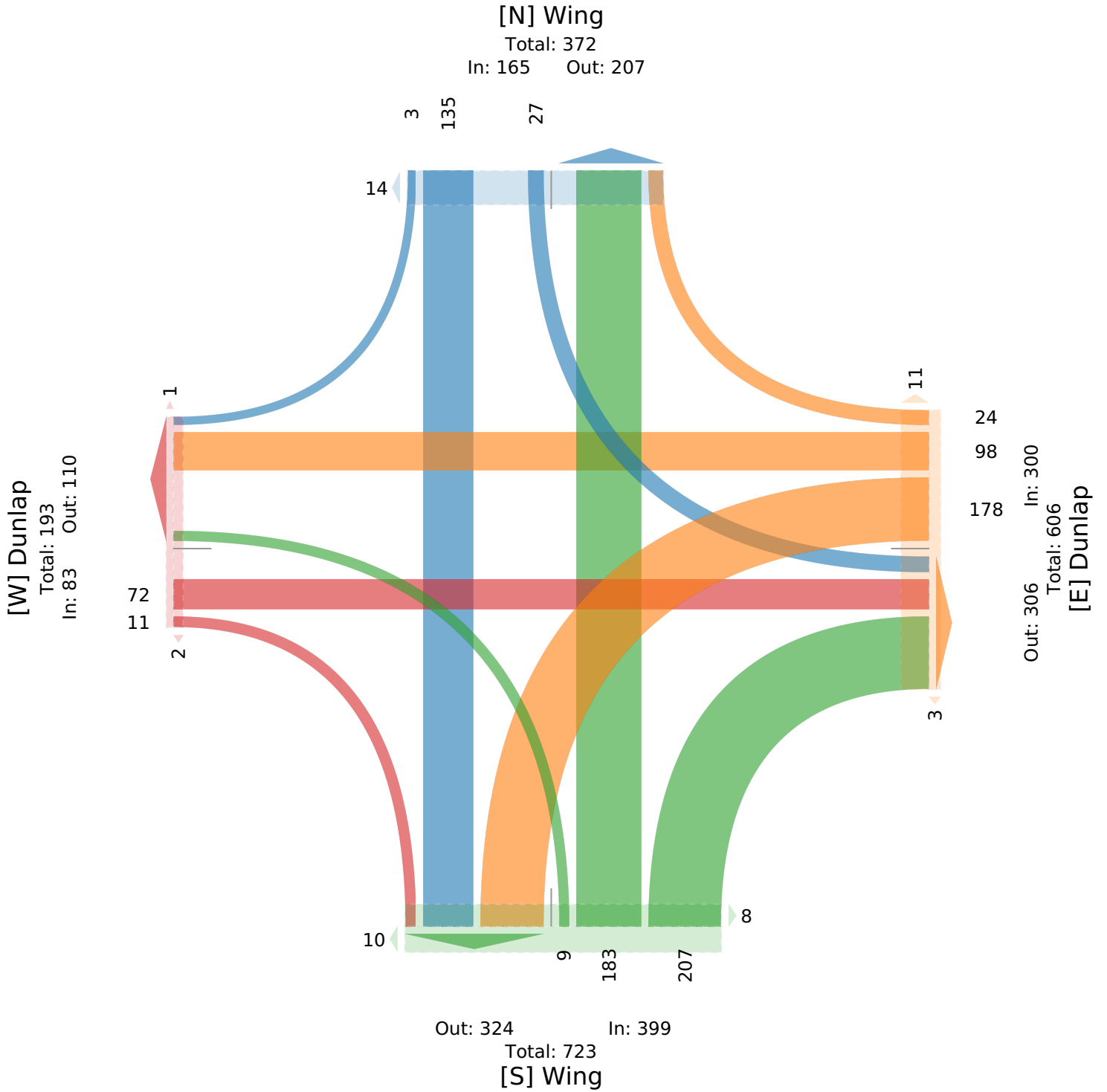
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886941, Location: 42.432119, -83.484794



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Dunlap & Center - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886944, Location: 42.432191, -83.483249



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Dunlap Eastbound						Dunlap Westbound						Center Northbound						Center Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 7:00AM	19	5	0	0	24	0	0	8	25	0	33	0	0	0	0	0	0	2	18	0	24	0	42	0	99
7:15AM	28	10	0	0	38	0	0	13	24	0	37	2	0	0	0	0	0	1	25	0	27	0	52	0	127
7:30AM	30	7	0	0	37	0	0	10	30	0	40	0	0	0	0	0	0	1	29	0	41	0	70	0	147
7:45AM	60	14	0	0	74	0	0	9	31	0	40	1	0	0	0	0	0	1	47	0	84	0	131	0	245
Hourly Total	137	36	0	0	173	0	0	40	110	0	150	3	0	0	0	0	0	5	119	0	176	0	295	0	618
8:00AM	50	17	0	0	67	1	0	10	31	0	41	1	0	0	0	0	0	0	54	0	89	0	143	0	251
8:15AM	61	16	0	0	77	1	0	9	26	0	35	1	0	0	0	0	0	2	46	1	50	0	97	0	209
8:30AM	35	18	0	0	53	1	0	18	30	0	48	1	0	0	0	0	0	1	44	0	32	0	76	1	177
8:45AM	34	19	0	0	53	2	1	20	34	0	55	0	0	0	0	0	0	1	54	0	48	0	102	1	210
Hourly Total	180	70	0	0	250	5	1	57	121	0	179	3	0	0	0	0	0	4	198	1	219	0	418	2	847
4:00PM	70	25	0	0	95	4	2	35	64	0	101	6	0	0	0	0	0	13	55	0	53	0	108	4	304
4:15PM	44	20	0	0	64	3	0	29	42	0	71	3	0	1	0	0	1	7	49	0	56	0	105	2	241
4:30PM	60	24	0	0	84	4	0	28	54	0	82	2	0	0	0	0	0	7	53	0	48	0	101	1	267
4:45PM	60	24	0	0	84	1	0	27	62	0	89	0	0	0	0	0	0	10	47	0	38	0	85	0	258
Hourly Total	234	93	0	0	327	12	2	119	222	0	343	11	0	1	0	0	1	37	204	0	195	0	399	7	1070
5:00PM	61	17	0	0	78	4	0	28	43	0	71	2	0	2	0	0	2	8	48	0	31	0	79	6	230
5:15PM	69	27	0	0	96	3	0	31	55	0	86	3	0	1	0	0	1	5	38	0	50	0	88	2	271
5:30PM	59	23	0	0	82	11	0	25	54	0	79	5	0	0	0	0	0	18	63	0	60	0	123	7	284
5:45PM	54	28	0	0	82	4	0	34	51	0	85	5	0	0	0	0	0	6	63	0	72	0	135	5	302
Hourly Total	243	95	0	0	338	22	0	118	203	0	321	15	0	3	0	0	3	37	212	0	213	0	425	20	1087
Total	794	294	0	0	1088	39	3	334	656	0	993	32	0	4	0	0	4	83	733	1	803	0	1537	29	3622
% Approach	73.0%	27.0%	0%	0%	-	-	0.3%	33.6%	66.1%	0%	-	-	0%	100%	0%	0%	-	-	47.7%	0.1%	52.2%	0%	-	-	-
% Total	21.9%	8.1%	0%	0%	30.0%	-	0.1%	9.2%	18.1%	0%	27.4%	-	0%	0.1%	0%	0%	0.1%	-	20.2%	0%	22.2%	0%	42.4%	-	-
Lights	783	290	0	0	1073	-	0	330	647	0	977	-	0	0	0	0	0	-	723	0	797	0	1520	-	3570
% Lights	98.6%	98.6%	0%	0%	98.6%	-	0%	98.8%	98.6%	0%	98.4%	-	0%	0%	0%	0%	0%	-	98.6%	0%	99.3%	0%	98.9%	-	98.6%
Single-Unit Trucks	8	1	0	0	9	-	0	2	5	0	7	-	0	0	0	0	0	-	4	0	3	0	7	-	23
% Single-Unit Trucks	1.0%	0.3%	0%	0%	0.8%	-	0%	0.6%	0.8%	0%	0.7%	-	0%	0%	0%	0%	0%	-	0.5%	0%	0.4%	0%	0.5%	-	0.6%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses	3	0	0	0	3	-	0	0	1	0	1	-	0	0	0	0	0	-	4	0	1	0	5	-	9
% Buses	0.4%	0%	0%	0%	0.3%	-	0%	0%	0.2%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0.5%	0%	0.1%	0%	0.3%	-	0.2%
Bicycles on Road	0	3	0	0	3	-	3	2	3	0	8	-	0	4	0	0	4	-	2	1	2	0	5	-	20
% Bicycles on Road	0%	1.0%	0%	0%	0.3%	-	100%	0.6%	0.5%	0%	0.8%	-	0%	100%	0%	0%	100%	-	0.3%	100%	0.2%	0%	0.3%	-	0.6%
Pedestrians	-	-	-	-	-	35	-	-	-	-	-	31	-	-	-	-	-	71	-	-	-	-	-	24	-
% Pedestrians	-	-	-	-	-	89.7%	-	-	-	-	-	96.9%	-	-	-	-	-	85.5%	-	-	-	-	-	82.8%	-
Bicycles on Crosswalk	-	-	-	-	-	4	-	-	-	-	-	1	-	-	-	-	-	12	-	-	-	-	-	5	-
% Bicycles on Crosswalk	-	-	-	-	-	10.3%	-	-	-	-	-	3.1%	-	-	-	-	-	14.5%	-	-	-	-	-	17.2%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Dunlap & Center - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

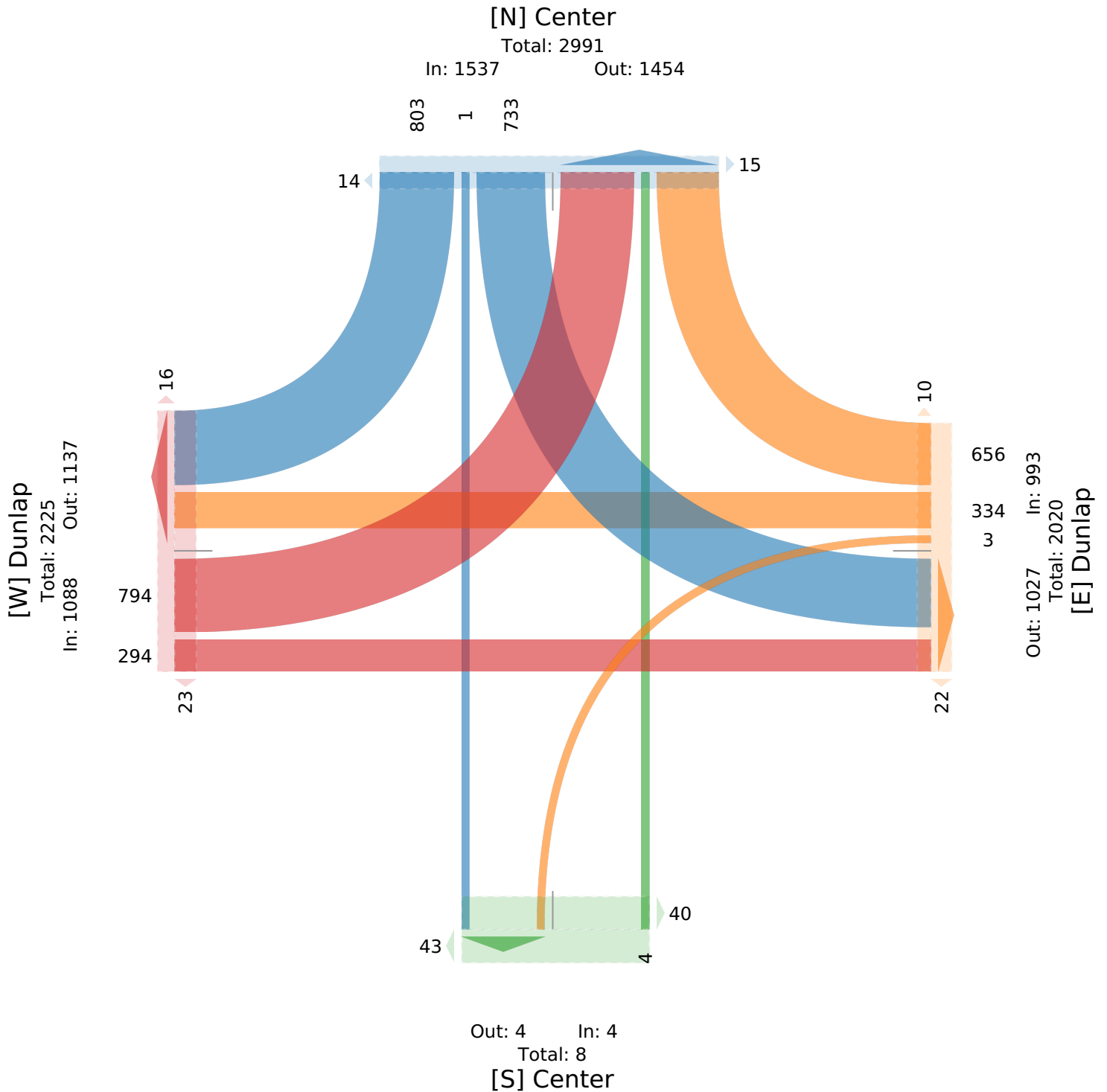
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886944, Location: 42.432191, -83.483249



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Dunlap & Center - TMC

Tue Oct 19, 2021

AM Peak (7:45 AM - 8:45 AM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886944, Location: 42.432191, -83.483249



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Dunlap Eastbound						Dunlap Westbound						Center Northbound						Center Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 7:45AM	60	14	0	0	74	0	0	9	31	0	40	1	0	0	0	0	0	1	47	0	84	0	131	0	245
8:00AM	50	17	0	0	67	1	0	10	31	0	41	1	0	0	0	0	0	0	54	0	89	0	143	0	251
8:15AM	61	16	0	0	77	1	0	9	26	0	35	1	0	0	0	0	0	2	46	1	50	0	97	0	209
8:30AM	35	18	0	0	53	1	0	18	30	0	48	1	0	0	0	0	0	1	44	0	32	0	76	1	177
Total	206	65	0	0	271	3	0	46	118	0	164	4	0	0	0	0	0	4	191	1	255	0	447	1	882
% Approach	76.0%	24.0%	0%	0%	-	-	0%	28.0%	72.0%	0%	-	-	0%	0%	0%	0%	-	-	42.7%	0.2%	57.0%	0%	-	-	-
% Total	23.4%	7.4%	0%	0%	30.7%	-	0%	5.2%	13.4%	0%	18.6%	-	0%	0%	0%	0%	0%	-	21.7%	0.1%	28.9%	0%	50.7%	-	-
PHF	0.844	0.903	-	-	0.880	-	-	0.639	0.952	-	0.854	-	-	-	-	-	-	-	0.884	-	0.716	-	0.780	-	0.877
Lights	203	64	0	0	267	-	0	46	114	0	160	-	0	0	0	0	0	-	184	0	254	0	438	-	865
% Lights	98.5%	98.5%	0%	0%	98.5%	-	0%	100%	96.6%	0%	97.6%	-	0%	0%	0%	0%	-	-	96.3%	0%	99.6%	0%	98.0%	-	98.1%
Single-Unit Trucks	3	1	0	0	4	-	0	0	3	0	3	-	0	0	0	0	0	-	3	0	1	0	4	-	11
% Single-Unit Trucks	1.5%	1.5%	0%	0%	1.5%	-	0%	0%	2.5%	0%	1.8%	-	0%	0%	0%	0%	-	-	1.6%	0%	0.4%	0%	0.9%	-	1.2%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	-	-	0%	0%	0%	0%	0%	-	0%
Buses	0	0	0	0	0	-	0	0	1	0	1	-	0	0	0	0	0	-	4	0	0	0	4	-	5
% Buses	0%	0%	0%	0%	0%	-	0%	0%	0.8%	0%	0.6%	-	0%	0%	0%	0%	-	-	2.1%	0%	0%	0%	0.9%	-	0.6%
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	1	-	1
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	-	-	0%	100%	0%	0%	0.2%	-	0.1%
Pedestrians	-	-	-	-	-	3	-	-	-	-	-	4	-	-	-	-	-	3	-	-	-	-	-	1	-
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	75.0%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	25.0%	-	-	-	-	-	0%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Dunlap & Center - TMC

Tue Oct 19, 2021

AM Peak (7:45 AM - 8:45 AM)

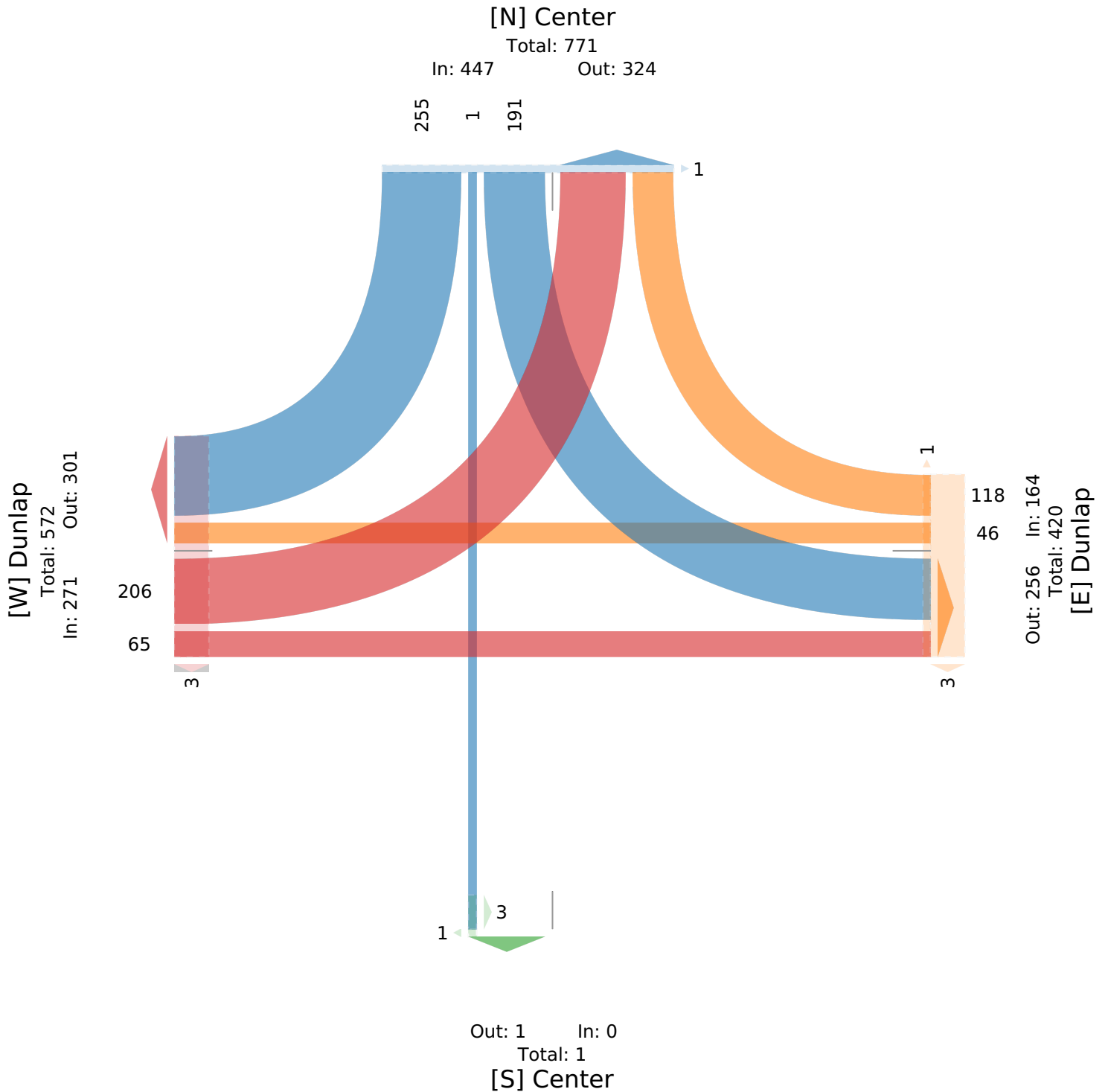
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886944, Location: 42.432191, -83.483249



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Dunlap & Center - TMC

Tue Oct 19, 2021

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886944, Location: 42.432191, -83.483249



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Dunlap Eastbound						Dunlap Westbound						Center Northbound						Center Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 5:00PM	61	17	0	0	78	4	0	28	43	0	71	2	0	2	0	0	2	8	48	0	31	0	79	6	230
5:15PM	69	27	0	0	96	3	0	31	55	0	86	3	0	1	0	0	1	5	38	0	50	0	88	2	271
5:30PM	59	23	0	0	82	11	0	25	54	0	79	5	0	0	0	0	0	18	63	0	60	0	123	7	284
5:45PM	54	28	0	0	82	4	0	34	51	0	85	5	0	0	0	0	0	6	63	0	72	0	135	5	302
Total	243	95	0	0	338	22	0	118	203	0	321	15	0	3	0	0	3	37	212	0	213	0	425	20	1087
% Approach	71.9%	28.1%	0%	0%	-	-	0%	36.8%	63.2%	0%	-	-	0%	100%	0%	0%	-	-	49.9%	0%	50.1%	0%	-	-	-
% Total	22.4%	8.7%	0%	0%	31.1%	-	0%	10.9%	18.7%	0%	29.5%	-	0%	0.3%	0%	0%	0.3%	-	19.5%	0%	19.6%	0%	39.1%	-	-
PHF	0.880	0.848	-	-	0.880	-	-	0.860	0.909	-	0.922	-	-	-	-	-	-	-	0.837	-	0.733	-	0.781	-	0.892
Lights	243	95	0	0	338	-	0	117	200	0	317	-	0	0	0	0	0	-	211	0	210	0	421	-	1076
% Lights	100%	100%	0%	0%	100%	-	0%	99.2%	98.5%	0%	98.8%	-	0%	0%	0%	0%	0%	-	99.5%	0%	98.6%	0%	99.1%	-	99.0%
Single-Unit Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	1	-	1
% Single-Unit Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0.5%	0%	0.2%	-	0.1%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Bicycles on Road	0	0	0	0	0	-	0	1	3	0	4	-	0	3	0	0	3	-	1	0	2	0	3	-	10
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0.8%	1.5%	0%	1.2%	-	0%	100%	0%	0%	100%	-	0.5%	0%	0.9%	0%	0.7%	-	0.9%
Pedestrians	-	-	-	-	-	21	-	-	-	-	-	15	-	-	-	-	-	32	-	-	-	-	-	15	
% Pedestrians	-	-	-	-	-	95.5%	-	-	-	-	-	100%	-	-	-	-	-	86.5%	-	-	-	-	-	75.0%	-
Bicycles on Crosswalk	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	5	-	-	-	-	-	5	
% Bicycles on Crosswalk	-	-	-	-	-	4.5%	-	-	-	-	-	0%	-	-	-	-	-	13.5%	-	-	-	-	-	25.0%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Dunlap & Center - TMC

Tue Oct 19, 2021

PM Peak (5 PM - 6 PM) - Overall Peak Hour

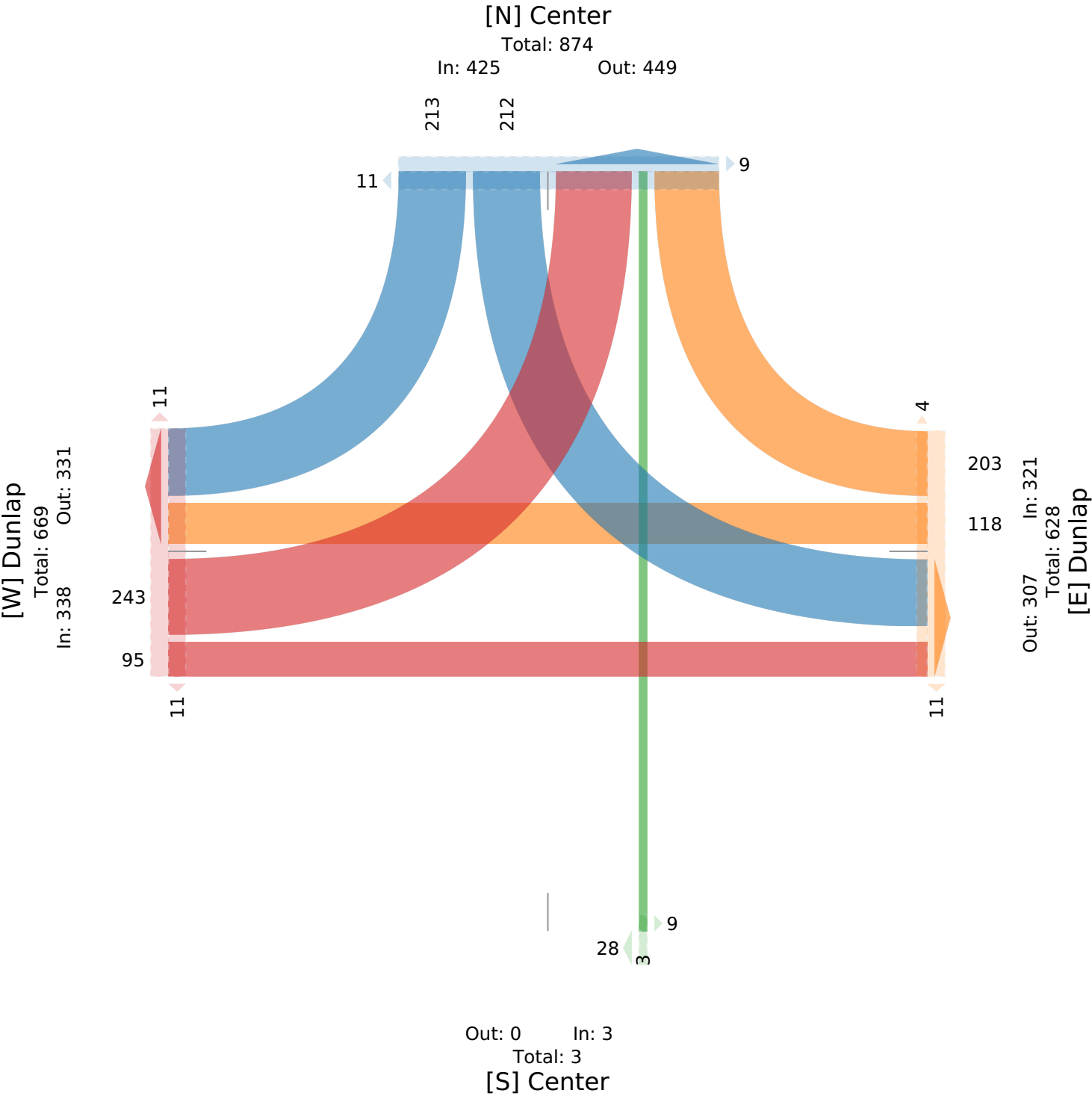
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886944, Location: 42.432191, -83.483249



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Hutton & Dunlap - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886949, Location: 42.432251, -83.48131



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Dunlap Eastbound					Dunlap Westbound					Hutton Southbound					
Time	L	T	U	App	Ped*	T	R	U	App	Ped*	L	R	U	App	Ped*	Int
2021-10-19 7:00AM	0	19	0	19	0	25	5	0	30	0	5	0	0	5	0	54
7:15AM	1	30	0	31	0	33	7	0	40	0	10	2	0	12	1	83
7:30AM	1	35	0	36	1	39	15	0	54	0	5	0	0	5	1	95
7:45AM	0	50	0	50	0	40	13	0	53	1	11	0	0	11	1	114
Hourly Total	2	134	0	136	1	137	40	0	177	1	31	2	0	33	3	346
8:00AM	2	59	0	61	0	40	14	0	54	0	10	0	0	10	0	125
8:15AM	1	60	0	61	2	33	12	0	45	2	9	2	0	11	0	117
8:30AM	1	54	0	55	2	54	10	0	64	2	13	2	0	15	0	134
8:45AM	0	65	0	65	1	48	21	0	69	1	16	3	0	19	0	153
Hourly Total	4	238	0	242	5	175	57	0	232	5	48	7	0	55	0	529
4:00PM	4	67	0	71	14	93	21	0	114	2	18	3	0	21	14	206
4:15PM	1	61	0	62	3	64	17	0	81	2	19	3	0	22	1	165
4:30PM	6	65	0	71	2	91	22	0	113	3	20	1	0	21	2	205
4:45PM	3	59	0	62	1	85	25	0	110	3	22	4	0	26	2	198
Hourly Total	14	252	0	266	20	333	85	0	418	10	79	11	0	90	19	774
5:00PM	3	54	0	57	0	69	33	0	102	1	16	4	0	20	8	179
5:15PM	2	57	0	59	4	82	27	0	109	4	17	2	0	19	2	187
5:30PM	1	70	0	71	11	74	19	0	93	3	27	6	0	33	4	197
5:45PM	4	76	0	80	8	83	18	0	101	0	17	2	0	19	6	200
Hourly Total	10	257	0	267	23	308	97	0	405	8	77	14	0	91	20	763
Total	30	881	0	911	49	953	279	0	1232	24	235	34	0	269	42	2412
% Approach	3.3%	96.7%	0%	-	-	77.4%	22.6%	0%	-	-	87.4%	12.6%	0%	-	-	-
% Total	1.2%	36.5%	0%	37.8%	-	39.5%	11.6%	0%	51.1%	-	9.7%	1.4%	0%	11.2%	-	-
Lights	28	869	0	897	-	941	276	0	1217	-	232	32	0	264	-	2378
% Lights	93.3%	98.6%	0%	98.5%	-	98.7%	98.9%	0%	98.8%	-	98.7%	94.1%	0%	98.1%	-	98.6%
Single-Unit Trucks	0	4	0	4	-	7	2	0	9	-	1	0	0	1	-	14
% Single-Unit Trucks	0%	0.5%	0%	0.4%	-	0.7%	0.7%	0%	0.7%	-	0.4%	0%	0%	0.4%	-	0.6%
Articulated Trucks	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Buses	0	4	0	4	-	1	0	0	1	-	0	0	0	0	-	5
% Buses	0%	0.5%	0%	0.4%	-	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	-	0.2%
Bicycles on Road	2	4	0	6	-	4	1	0	5	-	2	2	0	4	-	15
% Bicycles on Road	6.7%	0.5%	0%	0.7%	-	0.4%	0.4%	0%	0.4%	-	0.9%	5.9%	0%	1.5%	-	0.6%
Pedestrians	-	-	-	-	42	-	-	-	-	20	-	-	-	-	36	-
% Pedestrians	-	-	-	-	85.7%	-	-	-	-	83.3%	-	-	-	-	85.7%	-
Bicycles on Crosswalk	-	-	-	-	7	-	-	-	-	4	-	-	-	-	6	-
% Bicycles on Crosswalk	-	-	-	-	14.3%	-	-	-	-	16.7%	-	-	-	-	14.3%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Hutton & Dunlap - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

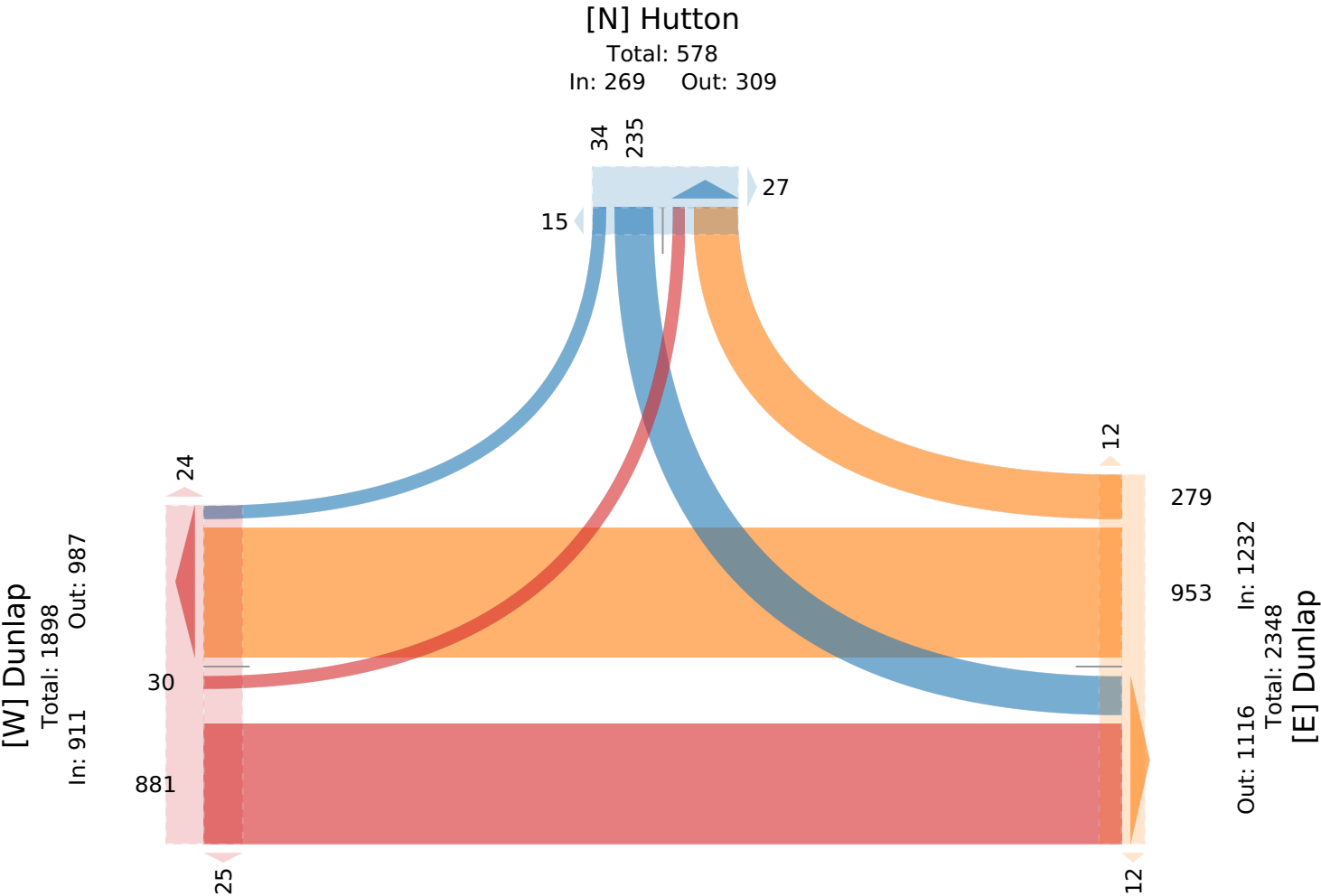
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886949, Location: 42.432251, -83.48131



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Hutton & Dunlap - TMC

Tue Oct 19, 2021

AM Peak (8 AM - 9 AM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886949, Location: 42.432251, -83.48131



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Dunlap Eastbound					Dunlap Westbound					Hutton Southbound					
Time	L	T	U	App	Ped*	T	R	U	App	Ped*	L	R	U	App	Ped*	Int
2021-10-19 8:00AM	2	59	0	61	0	40	14	0	54	0	10	0	0	10	0	125
8:15AM	1	60	0	61	2	33	12	0	45	2	9	2	0	11	0	117
8:30AM	1	54	0	55	2	54	10	0	64	2	13	2	0	15	0	134
8:45AM	0	65	0	65	1	48	21	0	69	1	16	3	0	19	0	153
Total	4	238	0	242	5	175	57	0	232	5	48	7	0	55	0	529
% Approach	1.7%	98.3%	0%	-	-	75.4%	24.6%	0%	-	-	87.3%	12.7%	0%	-	-	-
% Total	0.8%	45.0%	0%	45.7%	-	33.1%	10.8%	0%	43.9%	-	9.1%	1.3%	0%	10.4%	-	-
PHF	0.500	0.915	-	0.931	-	0.810	0.679	-	0.841	-	0.750	0.625	-	0.736	-	0.867
Lights	4	231	0	235	-	170	57	0	227	-	48	5	0	53	-	515
% Lights	100%	97.1%	0%	97.1%	-	97.1%	100%	0%	97.8%	-	100%	71.4%	0%	96.4%	-	97.4%
Single-Unit Trucks	0	3	0	3	-	4	0	0	4	-	0	0	0	0	-	7
% Single-Unit Trucks	0%	1.3%	0%	1.2%	-	2.3%	0%	0%	1.7%	-	0%	0%	0%	0%	-	1.3%
Articulated Trucks	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Buses	0	4	0	4	-	1	0	0	1	-	0	0	0	0	-	5
% Buses	0%	1.7%	0%	1.7%	-	0.6%	0%	0%	0.4%	-	0%	0%	0%	0%	-	0.9%
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	2	0	2	-	2
% Bicycles on Road	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	28.6%	0%	3.6%	-	0.4%
Pedestrians	-	-	-	-	4	-	-	-	-	5	-	-	-	-	0	-
% Pedestrians	-	-	-	-	80.0%	-	-	-	-	100%	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	20.0%	-	-	-	-	0%	-	-	-	-	-	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Hutton & Dunlap - TMC

Tue Oct 19, 2021

AM Peak (8 AM - 9 AM)

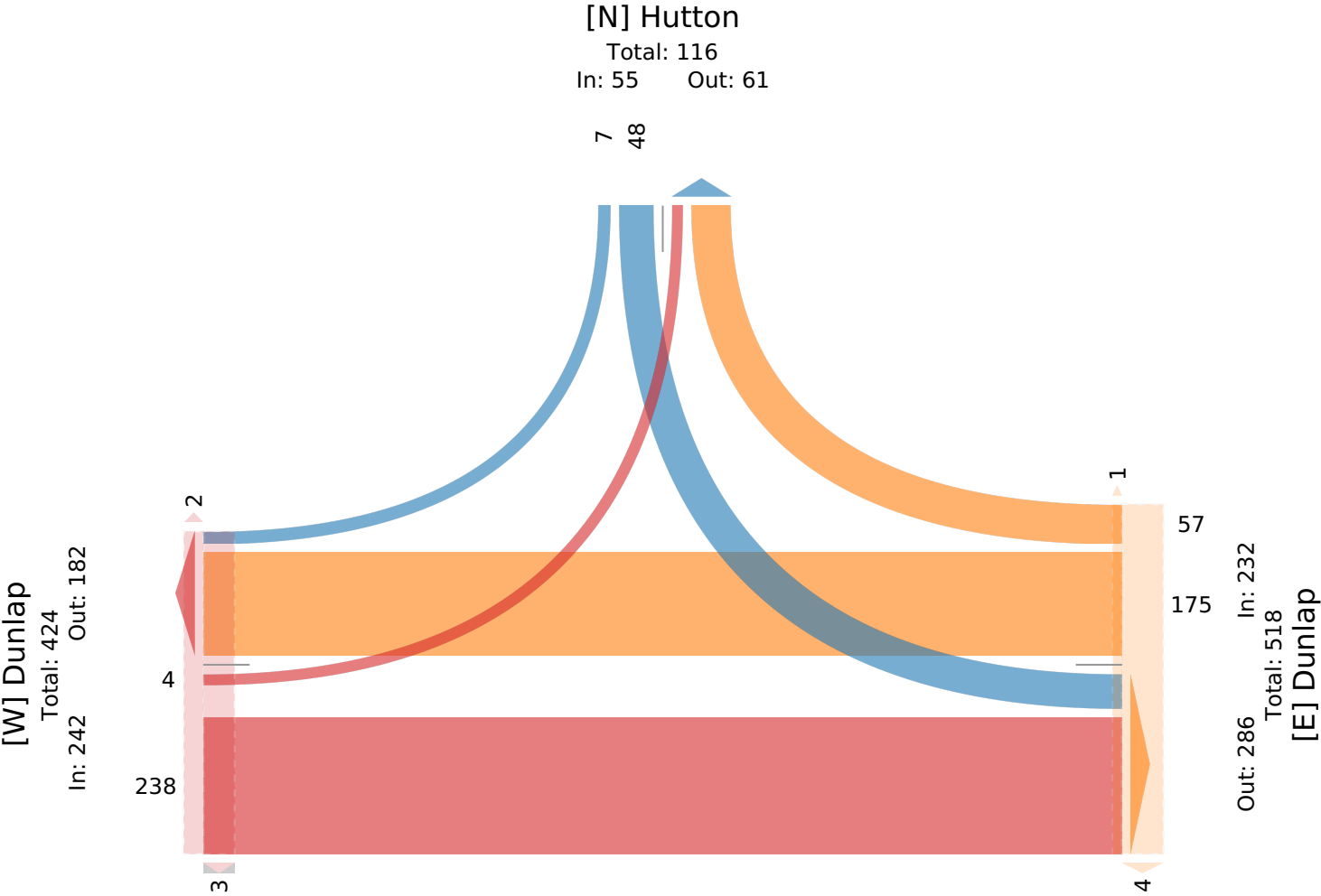
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886949, Location: 42.432251, -83.48131



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Hutton & Dunlap - TMC

Tue Oct 19, 2021

PM Peak (4 PM - 5 PM) - Overall Peak Hour

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886949, Location: 42.432251, -83.48131



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Dunlap Eastbound					Dunlap Westbound					Hutton Southbound					
Time	L	T	U	App	Ped*	T	R	U	App	Ped*	L	R	U	App	Ped*	Int
2021-10-19 4:00PM	4	67	0	71	14	93	21	0	114	2	18	3	0	21	14	206
4:15PM	1	61	0	62	3	64	17	0	81	2	19	3	0	22	1	165
4:30PM	6	65	0	71	2	91	22	0	113	3	20	1	0	21	2	205
4:45PM	3	59	0	62	1	85	25	0	110	3	22	4	0	26	2	198
Total	14	252	0	266	20	333	85	0	418	10	79	11	0	90	19	774
% Approach	5.3%	94.7%	0%	-	-	79.7%	20.3%	0%	-	-	87.8%	12.2%	0%	-	-	-
% Total	1.8%	32.6%	0%	34.4%	-	43.0%	11.0%	0%	54.0%	-	10.2%	1.4%	0%	11.6%	-	-
PHF	0.500	0.947	-	0.923	-	0.895	0.850	-	0.917	-	0.929	0.688	-	0.890	-	0.938
Lights	12	249	0	261	-	332	83	0	415	-	77	11	0	88	-	764
% Lights	85.7%	98.8%	0%	98.1%	-	99.7%	97.6%	0%	99.3%	-	97.5%	100%	0%	97.8%	-	98.7%
Single-Unit Trucks	0	1	0	1	-	1	2	0	3	-	1	0	0	1	-	5
% Single-Unit Trucks	0%	0.4%	0%	0.4%	-	0.3%	2.4%	0%	0.7%	-	1.3%	0%	0%	1.1%	-	0.6%
Articulated Trucks	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Buses	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Bicycles on Road	2	2	0	4	-	0	0	0	0	-	1	0	0	1	-	5
% Bicycles on Road	14.3%	0.8%	0%	1.5%	-	0%	0%	0%	0%	-	1.3%	0%	0%	1.1%	-	0.6%
Pedestrians	-	-	-	-	19	-	-	-	-	7	-	-	-	-	18	-
% Pedestrians	-	-	-	-	95.0%	-	-	-	-	70.0%	-	-	-	-	94.7%	-
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	3	-	-	-	-	1	-
% Bicycles on Crosswalk	-	-	-	-	5.0%	-	-	-	-	30.0%	-	-	-	-	5.3%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Hutton & Dunlap - TMC

Tue Oct 19, 2021

PM Peak (4 PM - 5 PM) - Overall Peak Hour

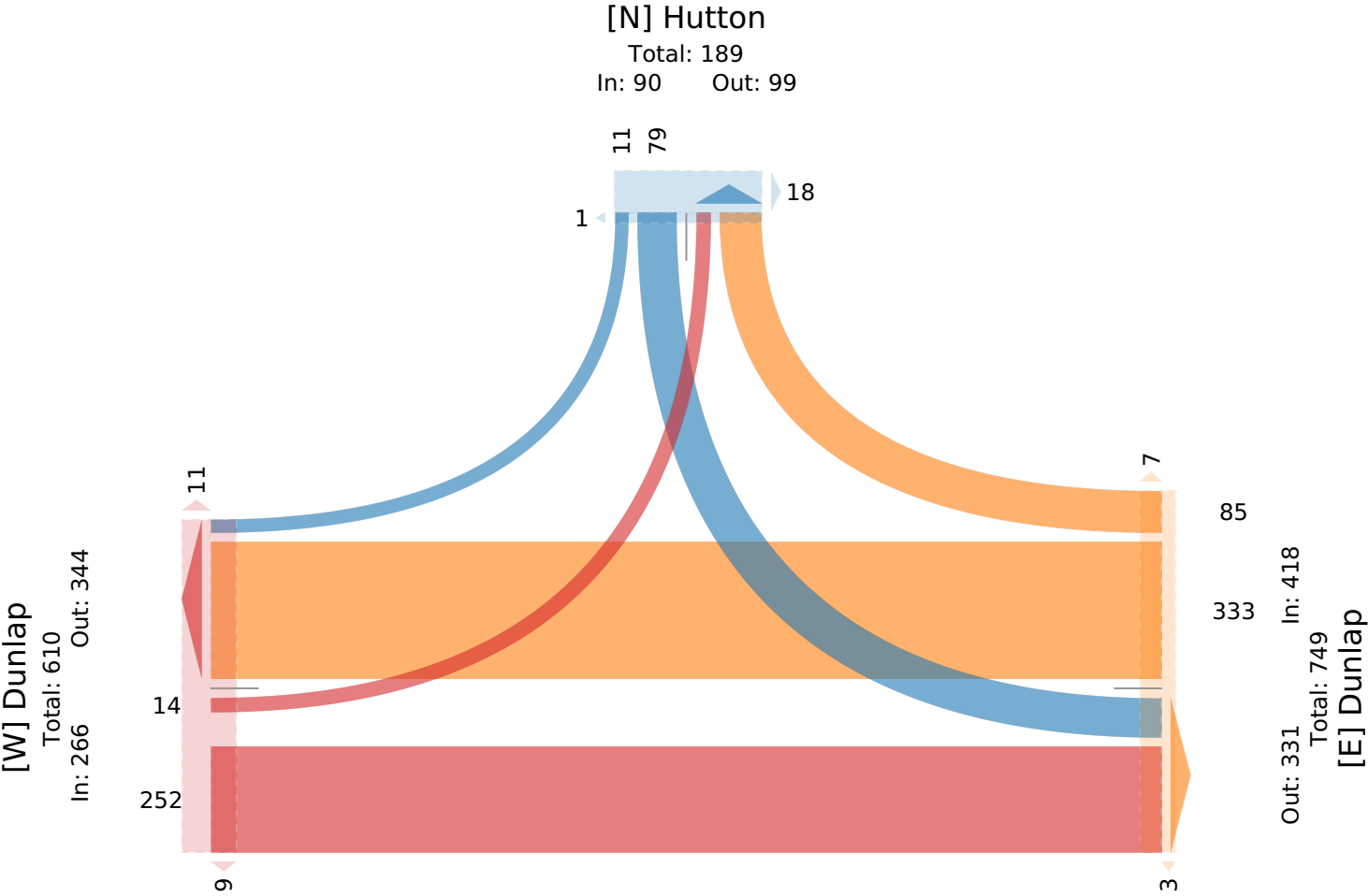
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886949, Location: 42.432251, -83.48131



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Wing & Center - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886940, Location: 42.431021, -83.484685



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Main Eastbound						Main Westbound						Wing Northbound						Wing Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 7:00AM	4	10	4	0	18	0	0	2	8	0	10	1	2	24	1	0	27	1	6	33	4	0	43	2	98
7:15AM	6	5	2	0	13	1	0	4	8	0	12	0	2	33	2	0	37	2	4	36	2	0	42	3	104
7:30AM	9	4	3	0	16	0	2	8	10	0	20	1	5	30	1	0	36	4	6	41	4	0	51	2	123
7:45AM	18	7	10	0	35	0	1	5	25	0	31	0	2	38	2	0	42	4	15	71	14	0	100	0	208
Hourly Total	37	26	19	0	82	1	3	19	51	0	73	2	11	125	6	0	142	11	31	181	24	0	236	7	533
8:00AM	24	15	16	0	55	0	0	13	12	0	25	0	1	33	0	0	34	3	13	72	16	0	101	0	215
8:15AM	21	17	10	0	48	1	0	7	18	0	25	0	4	33	1	0	38	3	11	49	7	0	67	2	178
8:30AM	14	14	13	0	41	2	1	4	8	0	13	0	7	34	1	0	42	1	7	38	1	0	46	7	142
8:45AM	11	9	13	0	33	0	0	4	20	0	24	3	5	29	1	0	35	3	9	45	9	0	63	2	155
Hourly Total	70	55	52	0	177	3	1	28	58	0	87	3	17	129	3	0	149	10	40	204	33	0	277	11	690
4:00PM	16	8	11	0	35	0	2	7	22	0	31	5	10	52	3	0	65	7	10	57	3	0	70	4	201
4:15PM	7	12	10	0	29	2	4	9	22	0	35	4	6	48	2	0	56	5	11	56	7	0	74	1	194
4:30PM	16	9	16	0	41	1	5	8	19	0	32	2	10	81	1	0	92	2	8	38	8	0	54	3	219
4:45PM	13	9	20	0	42	1	1	5	35	0	41	3	8	73	1	0	82	9	5	58	11	0	74	8	239
Hourly Total	52	38	57	0	147	4	12	29	98	0	139	14	34	254	7	0	295	23	34	209	29	0	272	16	853
5:00PM	16	15	25	0	56	1	3	10	18	0	31	9	6	63	4	0	73	8	9	48	5	0	62	3	222
5:15PM	19	10	10	0	39	2	4	14	30	0	48	6	13	70	0	0	83	8	11	77	8	0	96	10	266
5:30PM	17	10	14	0	41	3	1	13	14	0	28	4	6	56	5	0	67	13	18	42	14	0	74	16	210
5:45PM	11	10	11	0	32	0	2	8	25	0	35	15	13	55	0	0	68	10	12	68	11	0	91	8	226
Hourly Total	63	45	60	0	168	6	10	45	87	0	142	34	38	244	9	0	291	39	50	235	38	0	323	37	924
Total	222	164	188	0	574	14	26	121	294	0	441	53	100	752	25	0	877	83	155	829	124	0	1108	71	3000
% Approach	38.7%	28.6%	32.8%	0%	-	-	5.9%	27.4%	66.7%	0%	-	-	11.4%	85.7%	2.9%	0%	-	-	14.0%	74.8%	11.2%	0%	-	-	-
% Total	7.4%	5.5%	6.3%	0%	19.1%	-	0.9%	4.0%	9.8%	0%	14.7%	-	3.3%	25.1%	0.8%	0%	29.2%	-	5.2%	27.6%	4.1%	0%	36.9%	-	-
Lights	220	156	185	0	561	-	26	115	290	0	431	-	99	732	24	0	855	-	153	814	122	0	1089	-	2936
% Lights	99.1%	95.1%	98.4%	0%	97.7%	-	100%	95.0%	98.6%	0%	97.7%	-	99.0%	97.3%	96.0%	0%	97.5%	-	98.7%	98.2%	98.4%	0%	98.3%	-	97.9%
Single-Unit Trucks	1	0	0	0	1	-	0	2	3	0	5	-	0	6	0	0	6	-	1	2	2	0	5	-	17
% Single-Unit Trucks	0.5%	0%	0%	0%	0.2%	-	0%	1.7%	1.0%	0%	1.1%	-	0%	0.8%	0%	0%	0.7%	-	0.6%	0.2%	1.6%	0%	0.5%	-	0.6%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	1
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0%
Buses	0	5	1	0	6	-	0	2	1	0	3	-	1	7	0	0	8	-	0	6	0	0	6	-	23
% Buses	0%	3.0%	0.5%	0%	1.0%	-	0%	1.7%	0.3%	0%	0.7%	-	1.0%	0.9%	0%	0%	0.9%	-	0%	0.7%	0%	0%	0.5%	-	0.8%
Bicycles on Road	1	3	2	0	6	-	0	2	0	0	2	-	0	6	1	0	7	-	1	7	0	0	8	-	23
% Bicycles on Road	0.5%	1.8%	1.1%	0%	1.0%	-	0%	1.7%	0%	0%	0.5%	-	0%	0.8%	4.0%	0%	0.8%	-	0.6%	0.8%	0%	0%	0.7%	-	0.8%
Pedestrians	-	-	-	-	-	14	-	-	-	-	-	46	-	-	-	-	-	77	-	-	-	-	-	69	-
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	86.8%	-	-	-	-	-	92.8%	-	-	-	-	-	97.2%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	7	-	-	-	-	-	6	-	-	-	-	-	2	-
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	13.2%	-	-	-	-	-	7.2%	-	-	-	-	-	2.8%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Wing & Center - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

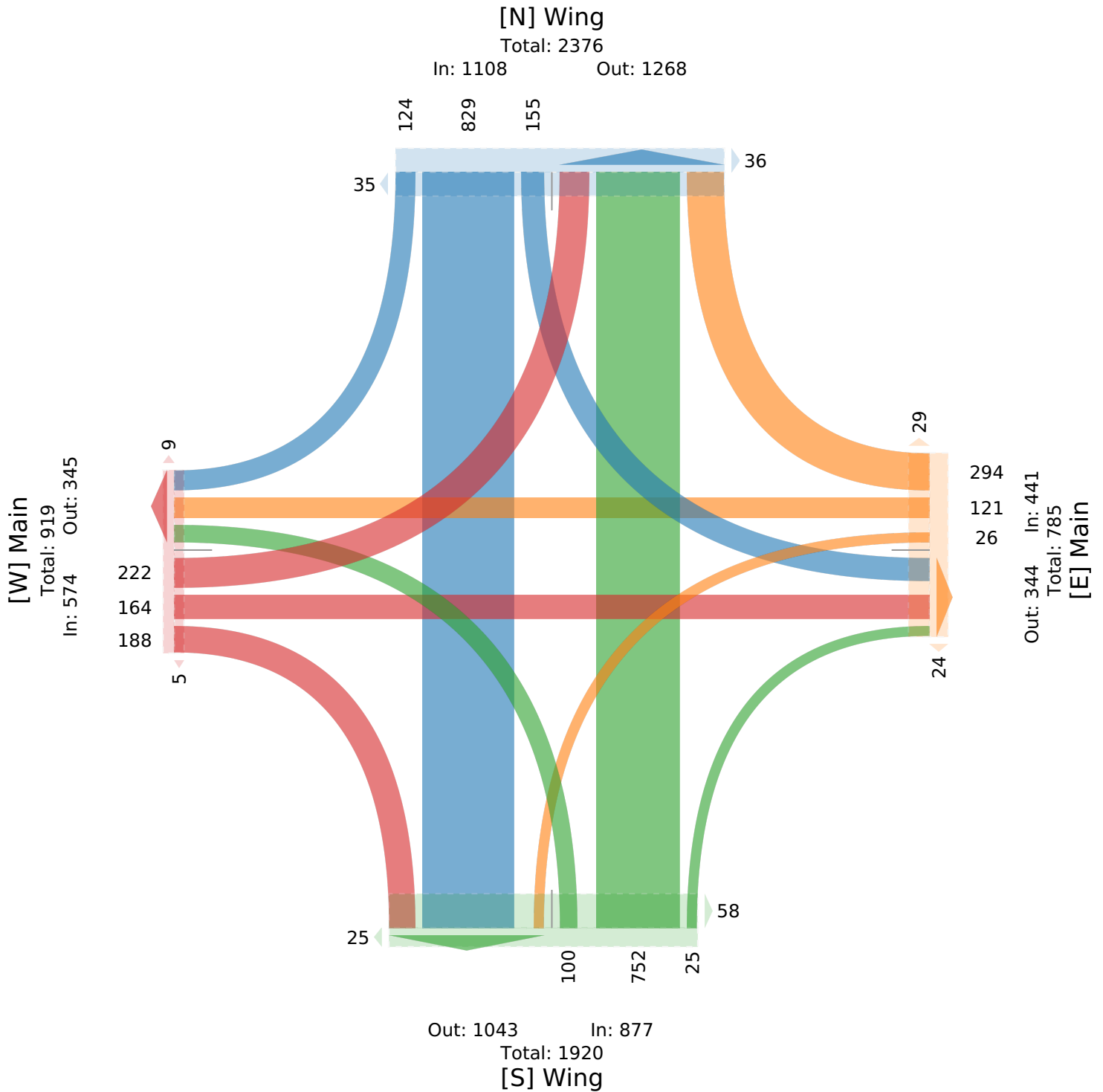
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886940, Location: 42.431021, -83.484685



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Wing & Center - TMC

Tue Oct 19, 2021

AM Peak (7:45 AM - 8:45 AM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886940, Location: 42.431021, -83.484685



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Main Eastbound						Main Westbound						Wing Northbound						Wing Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 7:45AM	18	7	10	0	35	0	1	5	25	0	31	0	2	38	2	0	42	4	15	71	14	0	100	0	208
8:00AM	24	15	16	0	55	0	0	13	12	0	25	0	1	33	0	0	34	3	13	72	16	0	101	0	215
8:15AM	21	17	10	0	48	1	0	7	18	0	25	0	4	33	1	0	38	3	11	49	7	0	67	2	178
8:30AM	14	14	13	0	41	2	1	4	8	0	13	0	7	34	1	0	42	1	7	38	1	0	46	7	142
Total	77	53	49	0	179	3	2	29	63	0	94	0	14	138	4	0	156	11	46	230	38	0	314	9	743
% Approach	43.0%	29.6%	27.4%	0%	-	-	2.1%	30.9%	67.0%	0%	-	-	9.0%	88.5%	2.6%	0%	-	-	14.6%	73.2%	12.1%	0%	-	-	-
% Total	10.4%	7.1%	6.6%	0%	24.1%	-	0.3%	3.9%	8.5%	0%	12.7%	-	1.9%	18.6%	0.5%	0%	21.0%	-	6.2%	31.0%	5.1%	0%	42.3%	-	-
PHF	0.802	0.779	0.766	-	0.814	-	0.500	0.558	0.630	-	0.758	-	0.500	0.908	0.500	-	0.929	-	0.767	0.799	0.594	-	0.777	-	0.864
Lights	77	51	48	0	176	-	2	28	62	0	92	-	13	132	4	0	149	-	46	225	38	0	309	-	726
% Lights	100%	96.2%	98.0%	0%	98.3%	-	100%	96.6%	98.4%	0%	97.9%	-	92.9%	95.7%	100%	0%	95.5%	-	100%	97.8%	100%	0%	98.4%	-	97.7%
Single-Unit Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	3	0	0	3	-	0	0	0	0	0	-	3
% Single-Unit Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	2.2%	0%	0%	1.9%	-	0%	0%	0%	0%	0%	-	0.4%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	1
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0.7%	0%	0%	0.6%	-	0%	0%	0%	0%	0%	-	0.1%
Buses	0	2	1	0	3	-	0	1	1	0	2	-	1	2	0	0	3	-	0	5	0	0	5	-	13
% Buses	0%	3.8%	2.0%	0%	1.7%	-	0%	3.4%	1.6%	0%	2.1%	-	7.1%	1.4%	0%	0%	1.9%	-	0%	2.2%	0%	0%	1.6%	-	1.7%
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	11	-	-	-	-	-	9	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	0%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Wing & Center - TMC

Tue Oct 19, 2021

AM Peak (7:45 AM - 8:45 AM)

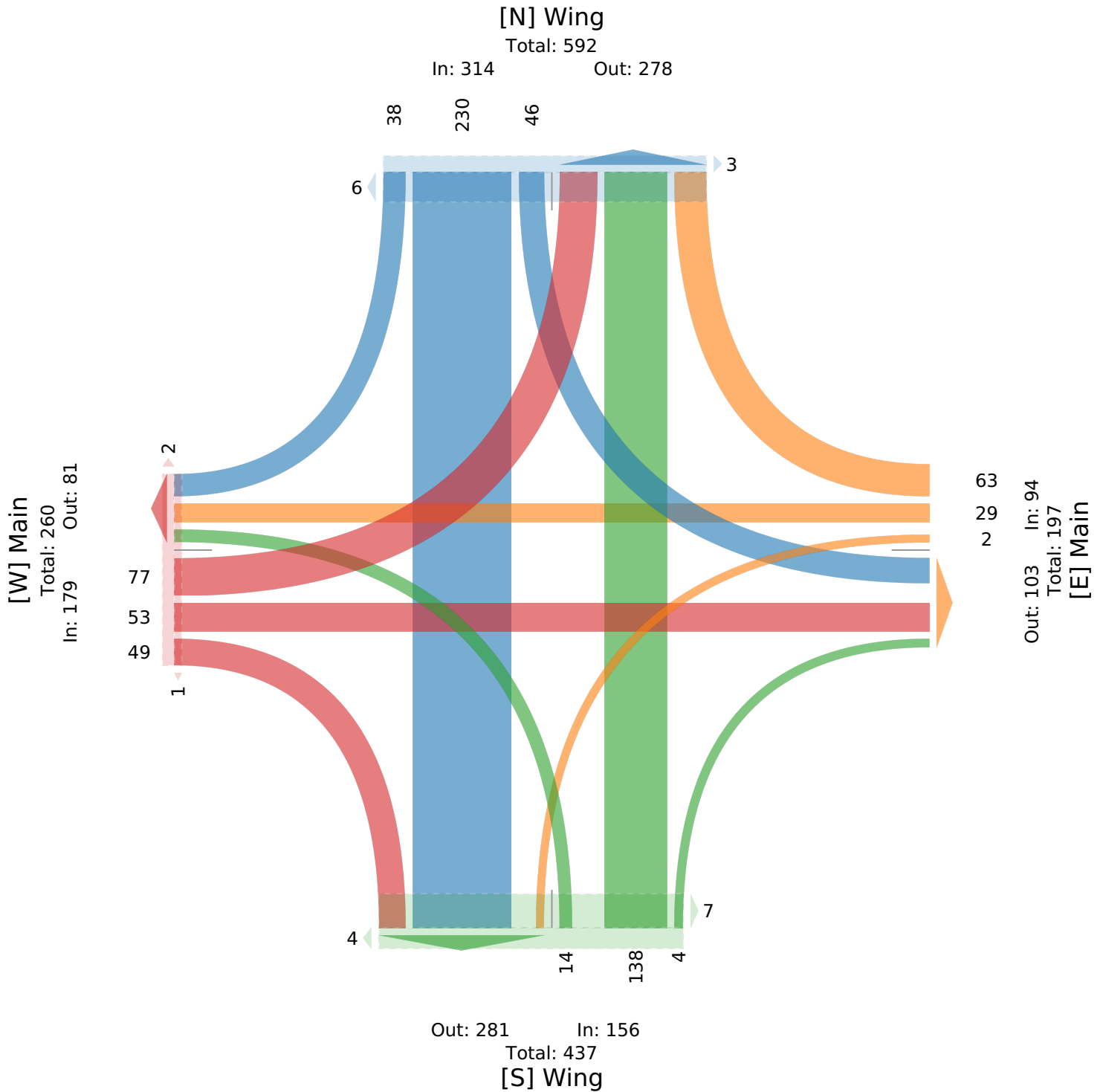
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886940, Location: 42.431021, -83.484685



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Wing & Center - TMC

Tue Oct 19, 2021

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886940, Location: 42.431021, -83.484685



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Main Eastbound						Main Westbound						Wing Northbound						Wing Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 4:30PM	16	9	16	0	41	1	5	8	19	0	32	2	10	81	1	0	92	2	8	38	8	0	54	3	219
4:45PM	13	9	20	0	42	1	1	5	35	0	41	3	8	73	1	0	82	9	5	58	11	0	74	8	239
5:00PM	16	15	25	0	56	1	3	10	18	0	31	9	6	63	4	0	73	8	9	48	5	0	62	3	222
5:15PM	19	10	10	0	39	2	4	14	30	0	48	6	13	70	0	0	83	8	11	77	8	0	96	10	266
Total	64	43	71	0	178	5	13	37	102	0	152	20	37	287	6	0	330	27	33	221	32	0	286	24	946
% Approach	36.0%	24.2%	39.9%	0%	-	-	8.6%	24.3%	67.1%	0%	-	-	11.2%	87.0%	1.8%	0%	-	-	11.5%	77.3%	11.2%	0%	-	-	-
% Total	6.8%	4.5%	7.5%	0%	18.8%	-	1.4%	3.9%	10.8%	0%	16.1%	-	3.9%	30.3%	0.6%	0%	34.9%	-	3.5%	23.4%	3.4%	0%	30.2%	-	-
PHF	0.829	0.769	0.729	-	0.816	-	0.650	0.692	0.729	-	0.803	-	0.712	0.899	0.375	-	0.908	-	0.750	0.733	0.727	-	0.758	-	0.894
Lights	62	39	70	0	171	-	13	36	100	0	149	-	37	282	6	0	325	-	33	216	32	0	281	-	926
% Lights	96.9%	90.7%	98.6%	0%	96.1%	-	100%	97.3%	98.0%	0%	98.0%	-	100%	98.3%	100%	0%	98.5%	-	100%	97.7%	100%	0%	98.3%	-	97.9%
Single-Unit Trucks	1	0	0	0	1	-	0	0	2	0	2	-	0	0	0	0	0	-	0	1	0	0	1	-	4
% Single-Unit Trucks	1.6%	0%	0%	0%	0.6%	-	0%	0%	2.0%	0%	1.3%	-	0%	0%	0%	0%	0%	-	0%	0.5%	0%	0%	0.3%	-	0.4%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses	0	1	0	0	1	-	0	0	0	0	0	-	0	2	0	0	2	-	0	0	0	0	0	-	3
% Buses	0%	2.3%	0%	0%	0.6%	-	0%	0%	0%	0%	0%	-	0%	0.7%	0%	0%	0.6%	-	0%	0%	0%	0%	0%	-	0.3%
Bicycles on Road	1	3	1	0	5	-	0	1	0	0	1	-	0	3	0	0	3	-	0	4	0	0	4	-	13
% Bicycles on Road	1.6%	7.0%	1.4%	0%	2.8%	-	0%	2.7%	0%	0%	0.7%	-	0%	1.0%	0%	0%	0.9%	-	0%	1.8%	0%	0%	1.4%	-	1.4%
Pedestrians	-	-	-	-	-	5	-	-	-	-	-	17	-	-	-	-	-	25	-	-	-	-	-	24	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	85.0%	-	-	-	-	-	92.6%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	2	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	15.0%	-	-	-	-	-	7.4%	-	-	-	-	-	0%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Wing & Center - TMC

Tue Oct 19, 2021

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

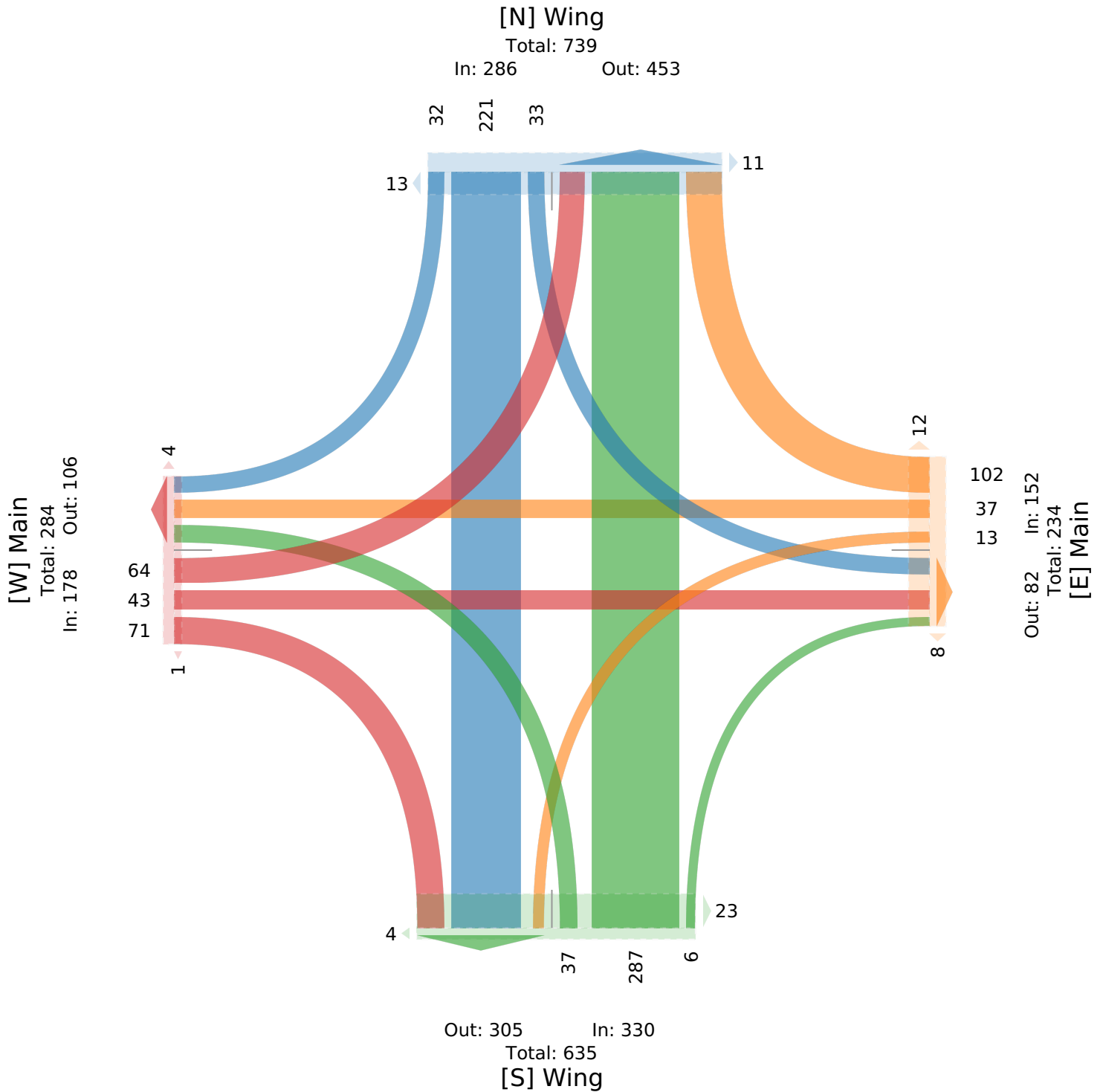
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886940, Location: 42.431021, -83.484685



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Main & Center - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886935, Location: 42.431075, -83.483227



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Main Eastbound						Main Westbound						Center Northbound						Center Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 7:00AM	0	0	16	0	16	1	0	0	0	0	0	0	12	0	0	0	12	1	0	0	0	0	0	2	28
7:15AM	0	0	9	1	10	0	0	0	0	0	0	0	18	0	0	0	18	2	0	0	0	0	0	5	28
7:30AM	0	1	8	0	9	2	0	1	0	0	1	1	21	0	0	0	21	4	0	0	0	0	0	3	31
7:45AM	0	0	25	0	25	0	0	0	2	0	2	0	36	1	0	0	37	5	0	0	0	0	0	3	64
Hourly Total	0	1	58	1	60	3	0	1	2	0	3	1	87	1	0	0	88	12	0	0	0	0	0	13	151
8:00AM	0	0	34	0	34	1	0	0	0	0	0	1	30	0	0	0	30	3	0	0	0	0	0	1	64
8:15AM	0	0	32	0	32	1	0	0	0	0	0	3	31	0	0	0	31	1	0	1	0	0	1	4	64
8:30AM	0	0	22	0	22	1	0	0	0	0	0	2	14	0	0	0	14	7	0	0	0	0	0	8	36
8:45AM	0	0	19	0	19	1	0	0	0	0	0	4	31	0	0	0	31	4	0	1	0	0	1	5	51
Hourly Total	0	0	107	0	107	4	0	0	0	0	0	10	106	0	0	0	106	15	0	2	0	0	2	18	215
4:00PM	0	0	22	1	23	2	0	0	0	0	0	26	31	1	0	0	32	2	0	2	0	0	2	27	57
4:15PM	0	0	26	0	26	7	0	0	1	0	1	20	43	1	0	0	44	15	0	0	0	0	0	20	71
4:30PM	1	1	14	0	16	4	0	0	0	0	0	14	35	0	0	0	35	17	0	0	0	0	0	17	51
4:45PM	0	0	18	0	18	8	0	0	0	0	0	21	49	2	0	0	51	13	0	0	0	0	0	16	69
Hourly Total	1	1	80	1	83	21	0	0	1	0	1	81	158	4	0	0	162	47	0	2	0	0	2	80	248
5:00PM	0	0	27	0	27	13	0	0	0	0	0	21	33	0	0	0	33	12	0	0	0	0	0	28	60
5:15PM	1	0	24	0	25	5	0	1	0	0	1	48	52	0	0	0	52	32	0	0	0	0	0	28	78
5:30PM	0	0	30	0	30	11	0	0	0	0	0	35	38	0	0	0	38	24	0	0	0	0	0	26	68
5:45PM	0	0	29	0	29	6	0	1	0	0	1	38	39	0	0	0	39	16	0	0	0	0	0	55	69
Hourly Total	1	0	110	0	111	35	0	2	0	0	2	142	162	0	0	0	162	84	0	0	0	0	0	137	275
Total	2	2	355	2	361	63	0	3	3	0	6	234	513	5	0	0	518	158	0	4	0	0	4	248	889
% Approach	0.6%	0.6%	98.3%	0.6%	-	-	0%	50.0%	50.0%	0%	-	-	99.0%	1.0%	0%	0%	-	-	0%	100%	0%	0%	-	-	-
% Total	0.2%	0.2%	39.9%	0.2%	40.6%	-	0%	0.3%	0.3%	0%	0.7%	-	57.7%	0.6%	0%	0%	58.3%	-	0%	0.4%	0%	0%	0.4%	-	-
Lights	0	0	346	2	348	-	0	0	0	0	0	-	505	0	0	0	505	-	0	0	0	0	0	-	853
% Lights	0%	0%	97.5%	100%	96.4%	-	0%	0%	0%	0%	0%	-	98.4%	0%	0%	0%	97.5%	-	0%	0%	0%	0%	0%	-	96.0%
Single-Unit Trucks	0	0	2	0	2	-	0	0	0	0	0	-	4	0	0	0	4	-	0	0	0	0	0	-	6
% Single-Unit Trucks	0%	0%	0.6%	0%	0.6%	-	0%	0%	0%	0%	0%	-	0.8%	0%	0%	0%	0.8%	-	0%	0%	0%	0%	0%	-	0.7%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	1	0	0	0	1	-	0	0	0	0	0	-	1
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.2%	0%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0.1%
Buses	0	0	4	0	4	-	0	0	0	0	0	-	3	0	0	0	3	-	0	0	0	0	0	-	7
% Buses	0%	0%	1.1%	0%	1.1%	-	0%	0%	0%	0%	0%	-	0.6%	0%	0%	0%	0.6%	-	0%	0%	0%	0%	0%	-	0.8%
Bicycles on Road	2	2	3	0	7	-	0	3	3	0	6	-	0	5	0	0	5	-	0	4	0	0	4	-	22
% Bicycles on Road	100%	100%	0.8%	0%	1.9%	-	0%	100%	100%	0%	100%	-	0%	100%	0%	0%	1.0%	-	0%	100%	0%	0%	100%	-	2.5%
Pedestrians	-	-	-	-	-	63	-	-	-	-	-	229	-	-	-	-	-	156	-	-	-	-	-	245	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	97.9%	-	-	-	-	-	98.7%	-	-	-	-	-	98.8%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	5	-	-	-	-	-	2	-	-	-	-	-	3	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	2.1%	-	-	-	-	-	1.3%	-	-	-	-	-	1.2%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Main & Center - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886935, Location: 42.431075, -83.483227

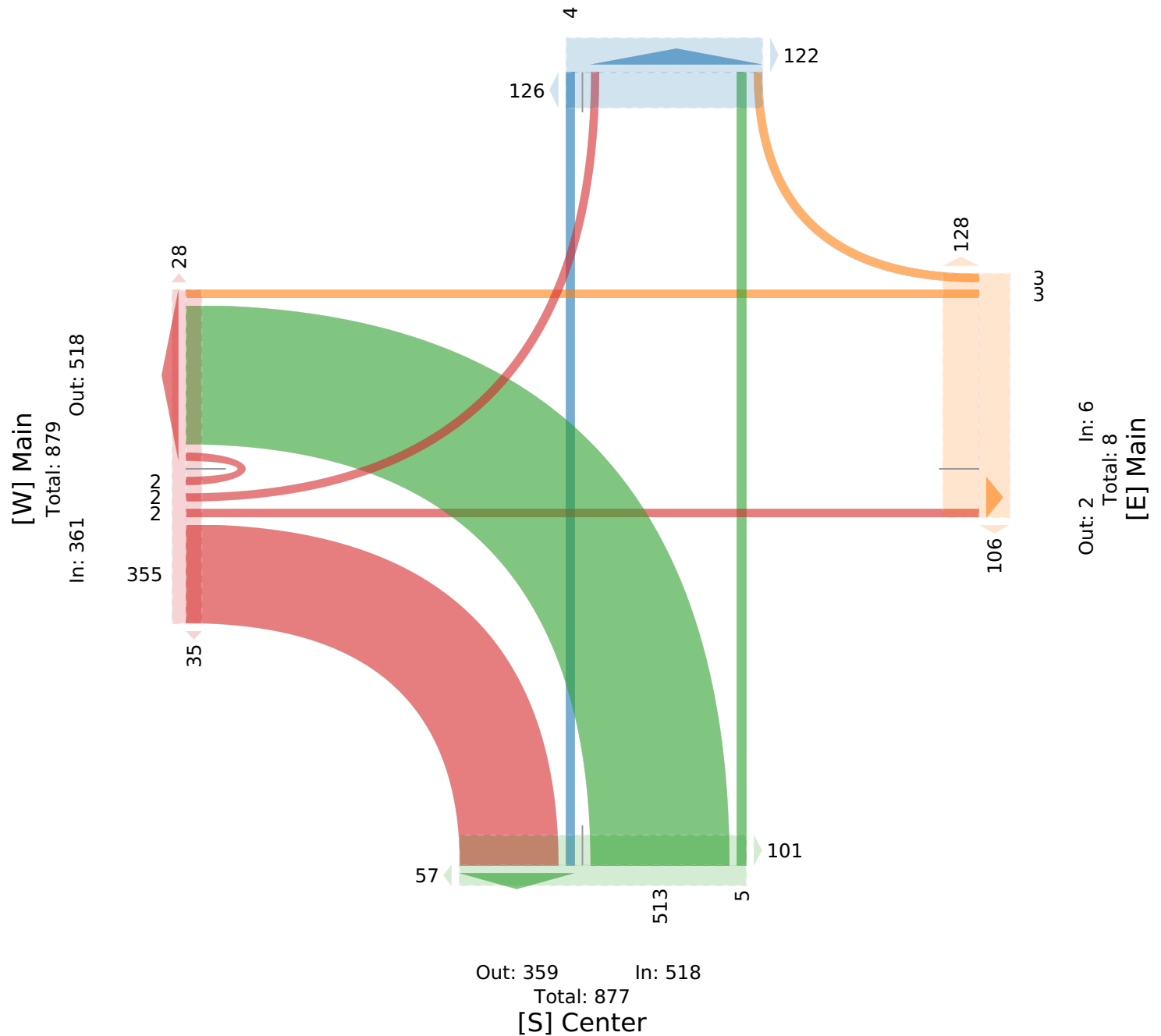


Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

[N] Center

Total: 14

In: 4 Out: 10



Main & Center - TMC

Tue Oct 19, 2021

AM Peak (7:45 AM - 8:45 AM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886935, Location: 42.431075, -83.483227



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Main Eastbound						Main Westbound						Center Northbound						Center Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 7:45AM	0	0	25	0	25	0	0	0	2	0	2	0	36	1	0	0	37	5	0	0	0	0	0	3	64
8:00AM	0	0	34	0	34	1	0	0	0	0	0	1	30	0	0	0	30	3	0	0	0	0	0	1	64
8:15AM	0	0	32	0	32	1	0	0	0	0	0	3	31	0	0	0	31	1	0	1	0	0	1	4	64
8:30AM	0	0	22	0	22	1	0	0	0	0	0	2	14	0	0	0	14	7	0	0	0	0	0	8	36
Total	0	0	113	0	113	3	0	0	2	0	2	6	111	1	0	0	112	16	0	1	0	0	1	16	228
% Approach	0%	0%	100%	0%	-	-	0%	0%	100%	0%	-	-	99.1%	0.9%	0%	0%	-	-	0%	100%	0%	0%	-	-	-
% Total	0%	0%	49.6%	0%	49.6%	-	0%	0%	0.9%	0%	0.9%	-	48.7%	0.4%	0%	0%	49.1%	-	0%	0.4%	0%	0%	0.4%	-	-
PHF	-	-	0.831	-	0.831	-	-	-	-	-	-	-	0.771	-	-	-	0.771	-	-	-	-	-	-	-	0.875
Lights	0	0	110	0	110	-	0	0	0	0	0	-	109	0	0	0	109	-	0	0	0	0	0	-	219
% Lights	0%	0%	97.3%	0%	97.3%	-	0%	0%	0%	0%	0%	-	98.2%	0%	0%	0%	97.3%	-	0%	0%	0%	0%	0%	-	96.1%
Single-Unit Trucks	0	0	1	0	1	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	1
% Single-Unit Trucks	0%	0%	0.9%	0%	0.9%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.4%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses	0	0	2	0	2	-	0	0	0	0	0	-	2	0	0	0	2	-	0	0	0	0	0	-	4
% Buses	0%	0%	1.8%	0%	1.8%	-	0%	0%	0%	0%	0%	-	1.8%	0%	0%	0%	1.8%	-	0%	0%	0%	0%	0%	-	1.8%
Bicycles on Road	0	0	0	0	0	-	0	0	2	0	2	-	0	1	0	0	1	-	0	1	0	0	1	-	4
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0%	100%	0%	100%	-	0%	100%	0%	0%	0.9%	-	0%	100%	0%	0%	100%	-	1.8%
Pedestrians	-	-	-	-	-	3	-	-	-	-	-	6	-	-	-	-	-	15	-	-	-	-	-	14	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	93.8%	-	-	-	-	-	87.5%	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	2	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	6.3%	-	-	-	-	-	12.5%	

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Main & Center - TMC

Tue Oct 19, 2021

AM Peak (7:45 AM - 8:45 AM)

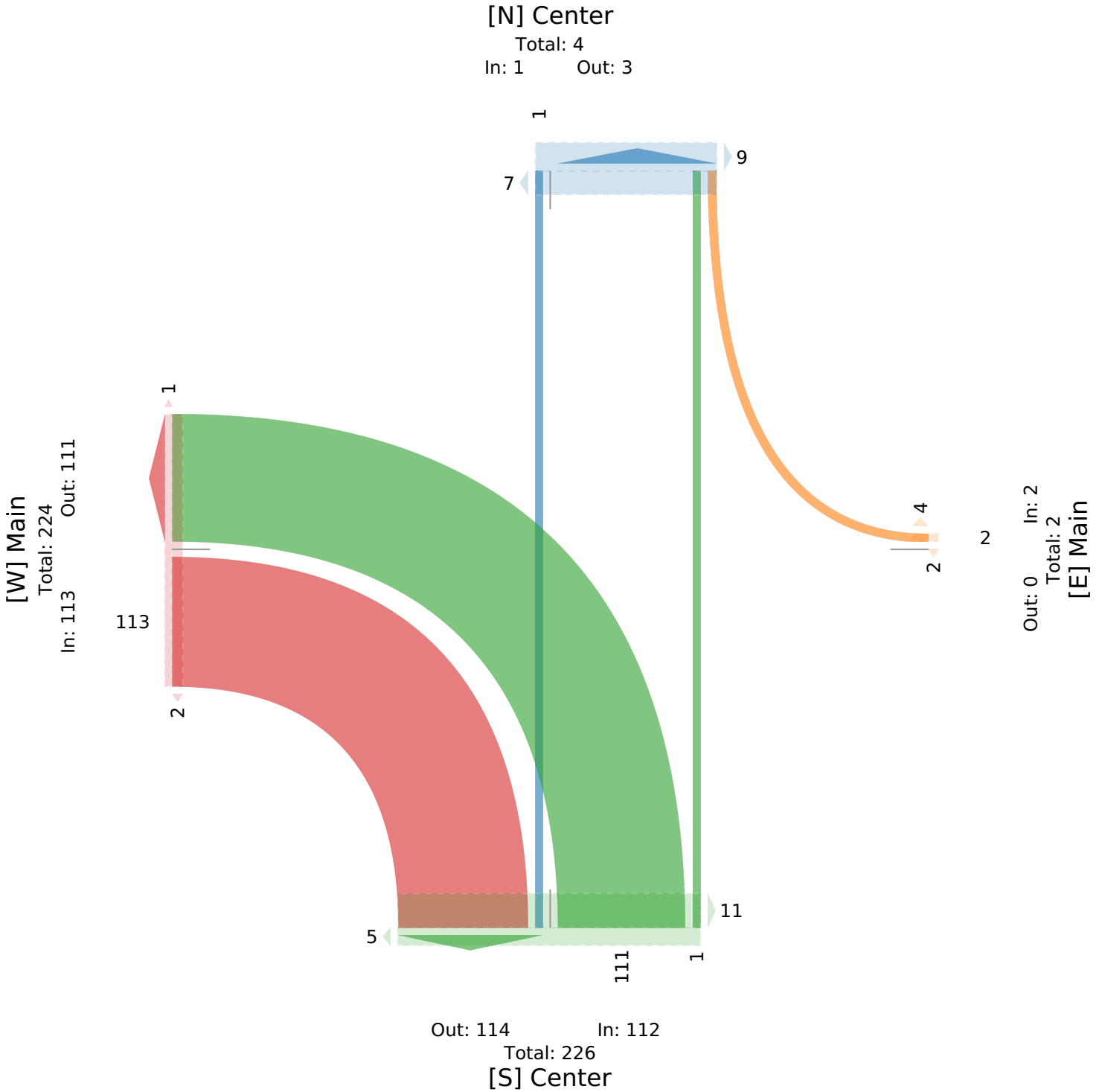
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886935, Location: 42.431075, -83.483227



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Main & Center - TMC

Tue Oct 19, 2021

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886935, Location: 42.431075, -83.483227



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Main Eastbound						Main Westbound						Center Northbound						Center Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 5:00PM	0	0	27	0	27	13	0	0	0	0	0	21	33	0	0	0	33	12	0	0	0	0	0	28	60
5:15PM	1	0	24	0	25	5	0	1	0	0	1	48	52	0	0	0	52	32	0	0	0	0	0	28	78
5:30PM	0	0	30	0	30	11	0	0	0	0	0	35	38	0	0	0	38	24	0	0	0	0	0	26	68
5:45PM	0	0	29	0	29	6	0	1	0	0	1	38	39	0	0	0	39	16	0	0	0	0	0	55	69
Total	1	0	110	0	111	35	0	2	0	0	2	142	162	0	0	0	162	84	0	0	0	0	0	137	275
% Approach	0.9%	0%	99.1%	0%	-	-	0%	100%	0%	0%	-	-	100%	0%	0%	0%	-	-	0%	0%	0%	0%	-	-	-
% Total	0.4%	0%	40.0%	0%	40.4%	-	0%	0.7%	0%	0%	0.7%	-	58.9%	0%	0%	0%	58.9%	-	0%	0%	0%	0%	0%	-	-
PHF	-	-	0.900	-	0.900	-	-	-	-	-	-	-	0.779	-	-	-	0.779	-	-	-	-	-	-	-	0.912
Lights	0	0	107	0	107	-	0	0	0	0	0	-	160	0	0	0	160	-	0	0	0	0	0	-	267
% Lights	0%	0%	97.3%	0%	96.4%	-	0%	0%	0%	0%	0%	-	98.8%	0%	0%	0%	98.8%	-	0%	0%	0%	0%	-	-	97.1%
Single-Unit Trucks	0	0	1	0	1	-	0	0	0	0	0	-	2	0	0	0	2	-	0	0	0	0	0	-	3
% Single-Unit Trucks	0%	0%	0.9%	0%	0.9%	-	0%	0%	0%	0%	0%	-	1.2%	0%	0%	0%	1.2%	-	0%	0%	0%	0%	-	-	1.1%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	-	-	0%
Buses	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	-	-	0%
Bicycles on Road	1	0	2	0	3	-	0	2	0	0	2	-	0	0	0	0	0	-	0	0	0	0	0	-	5
% Bicycles on Road	100%	0%	1.8%	0%	2.7%	-	0%	100%	0%	0%	100%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	-	-	1.8%
Pedestrians	-	-	-	-	-	35	-	-	-	-	-	140	-	-	-	-	-	83	-	-	-	-	-	136	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	98.6%	-	-	-	-	-	98.8%	-	-	-	-	-	99.3%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	1	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	1.4%	-	-	-	-	-	1.2%	-	-	-	-	-	0.7%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Main & Center - TMC

Tue Oct 19, 2021

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886935, Location: 42.431075, -83.483227

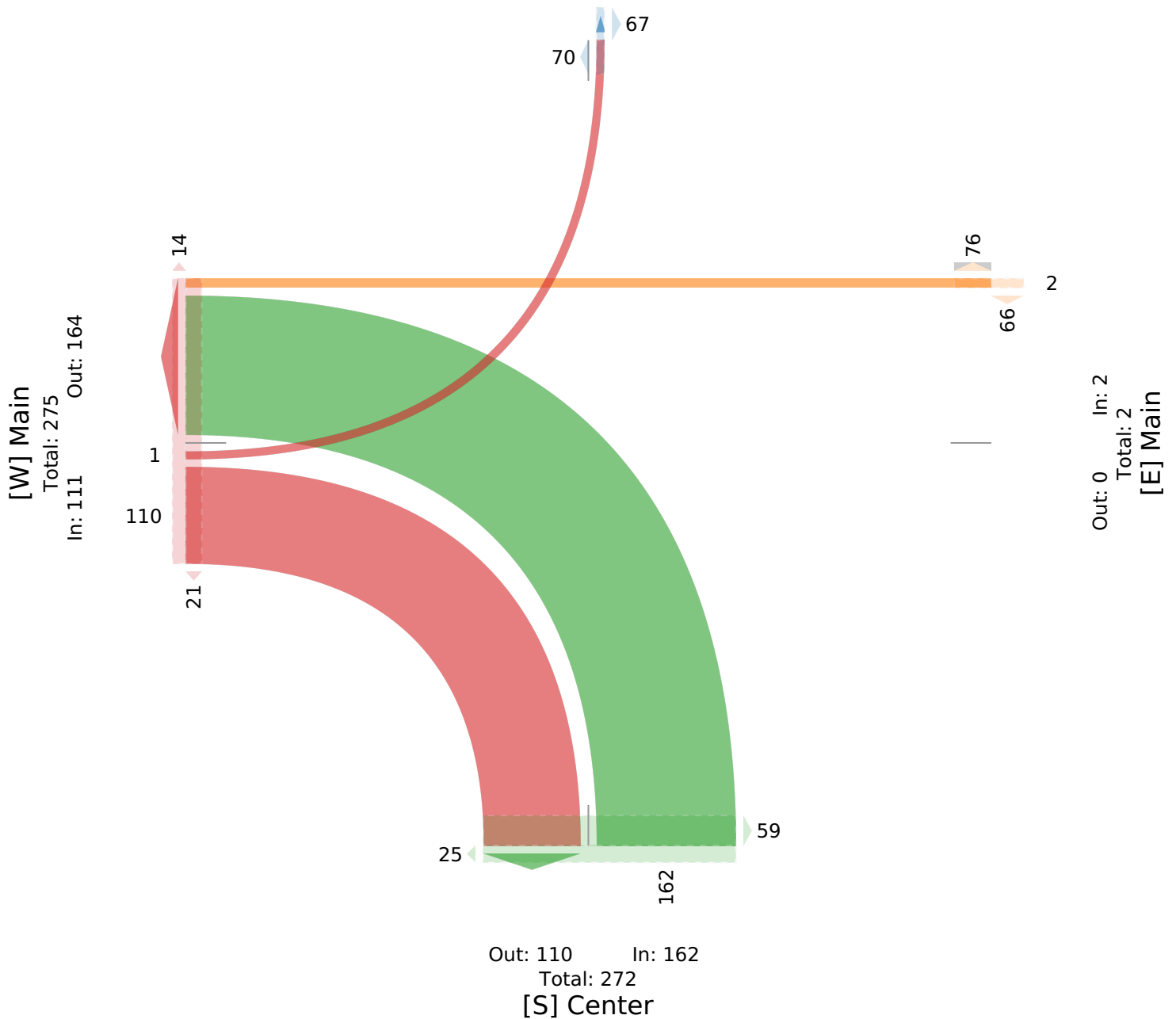


Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

[N] Center

Total: 1

In: 0 Out: 1



Main & Northville - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886934, Location: 42.431204, -83.481005



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Main Eastbound						Main Westbound						Hutton Northbound						Hutton Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 7:00AM	0	0	0	0	0	1	3	0	19	0	22	0	0	15	8	0	23	1	20	4	0	0	24	5	69
7:15AM	0	0	0	0	0	4	2	1	25	0	28	0	0	24	12	0	36	1	24	18	0	0	42	7	106
7:30AM	0	1	0	0	1	0	1	0	30	0	31	0	0	28	7	0	35	4	32	12	0	0	44	1	111
7:45AM	0	0	0	0	0	1	5	0	39	0	44	2	0	25	12	0	37	3	38	18	0	0	56	3	137
Hourly Total	0	1	0	0	1	6	11	1	113	0	125	2	0	92	39	0	131	9	114	52	0	0	166	16	423
8:00AM	0	0	0	0	0	1	7	0	44	0	51	0	0	22	12	0	34	3	55	23	0	0	78	1	163
8:15AM	0	0	0	0	0	1	5	0	24	0	29	1	0	29	23	0	52	5	61	11	0	0	72	3	153
8:30AM	0	0	0	0	0	2	5	0	43	0	48	0	0	28	15	0	43	6	54	16	1	0	71	5	162
8:45AM	0	0	0	0	0	0	6	0	56	0	62	0	0	31	7	0	38	3	63	17	0	0	80	2	180
Hourly Total	0	0	0	0	0	4	23	0	167	0	190	1	0	110	57	0	167	17	233	67	1	0	301	11	658
4:00PM	0	0	0	0	0	17	7	0	70	0	77	1	0	38	6	0	44	21	67	20	0	0	87	11	208
4:15PM	0	0	0	0	0	14	7	0	62	0	69	1	0	32	4	0	36	17	61	22	0	0	83	9	188
4:30PM	0	1	0	0	1	22	14	0	87	0	101	0	0	34	6	0	40	10	74	22	0	0	96	15	238
4:45PM	0	0	0	0	0	12	13	0	85	0	98	2	0	31	12	0	43	22	61	34	0	0	95	11	236
Hourly Total	0	1	0	0	1	65	41	0	304	0	345	4	0	135	28	0	163	70	263	98	0	0	361	46	870
5:00PM	0	0	0	0	0	3	13	0	74	0	87	2	0	42	5	0	47	10	57	18	1	0	76	6	210
5:15PM	0	0	0	0	0	17	6	1	80	0	87	5	0	34	1	0	35	12	66	22	0	0	88	5	210
5:30PM	0	1	0	0	1	29	16	0	71	0	87	2	0	32	10	0	42	21	74	34	0	0	108	24	238
5:45PM	0	0	0	0	0	15	16	0	82	0	98	4	0	36	9	0	45	18	74	19	0	0	93	13	236
Hourly Total	0	1	0	0	1	64	51	1	307	0	359	13	0	144	25	0	169	61	271	93	1	0	365	48	894
Total	0	3	0	0	3	139	126	2	891	0	1019	20	0	481	149	0	630	157	881	310	2	0	1193	121	2845
% Approach	0%	100%	0%	0%	-	-	12.4%	0.2%	87.4%	0%	-	-	0%	76.3%	23.7%	0%	-	-	73.8%	26.0%	0.2%	0%	-	-	-
% Total	0%	0.1%	0%	0%	0.1%	-	4.4%	0.1%	31.3%	0%	35.8%	-	0%	16.9%	5.2%	0%	22.1%	-	31.0%	10.9%	0.1%	0%	41.9%	-	-
Lights	0	0	0	0	0	-	123	0	879	0	1002	-	0	478	148	0	626	-	872	299	0	0	1171	-	2799
% Lights	0%	0%	0%	0%	0%	-	97.6%	0%	98.7%	0%	98.3%	-	0%	99.4%	99.3%	0%	99.4%	-	99.0%	96.5%	0%	0%	98.2%	-	98.4%
Single-Unit Trucks	0	0	0	0	0	-	1	0	6	0	7	-	0	0	0	0	0	-	3	5	0	0	8	-	15
% Single-Unit Trucks	0%	0%	0%	0%	0%	-	0.8%	0%	0.7%	0%	0.7%	-	0%	0%	0%	0%	0%	-	0.3%	1.6%	0%	0%	0.7%	-	0.5%
Articulated Trucks	0	0	0	0	0	-	2	0	2	0	4	-	0	1	0	0	1	-	3	0	0	0	3	-	8
% Articulated Trucks	0%	0%	0%	0%	0%	-	1.6%	0%	0.2%	0%	0.4%	-	0%	0.2%	0%	0%	0.2%	-	0.3%	0%	0%	0%	0.3%	-	0.3%
Buses	0	0	0	0	0	-	0	0	2	0	2	-	0	0	0	0	0	-	3	1	0	0	4	-	6
% Buses	0%	0%	0%	0%	0%	-	0%	0%	0.2%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0.3%	0.3%	0%	0%	0.3%	-	0.2%
Bicycles on Road	0	3	0	0	3	-	0	2	2	0	4	-	0	2	1	0	3	-	0	5	2	0	7	-	17
% Bicycles on Road	0%	100%	0%	0%	100%	-	0%	100%	0.2%	0%	0.4%	-	0%	0.4%	0.7%	0%	0.5%	-	0%	1.6%	100%	0%	0.6%	-	0.6%
Pedestrians	-	-	-	-	-	139	-	-	-	-	-	18	-	-	-	-	-	154	-	-	-	-	-	118	-
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	90.0%	-	-	-	-	-	98.1%	-	-	-	-	-	97.5%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	3	-	-	-	-	-	3	-
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	10.0%	-	-	-	-	-	1.9%	-	-	-	-	-	2.5%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Main & Northville - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

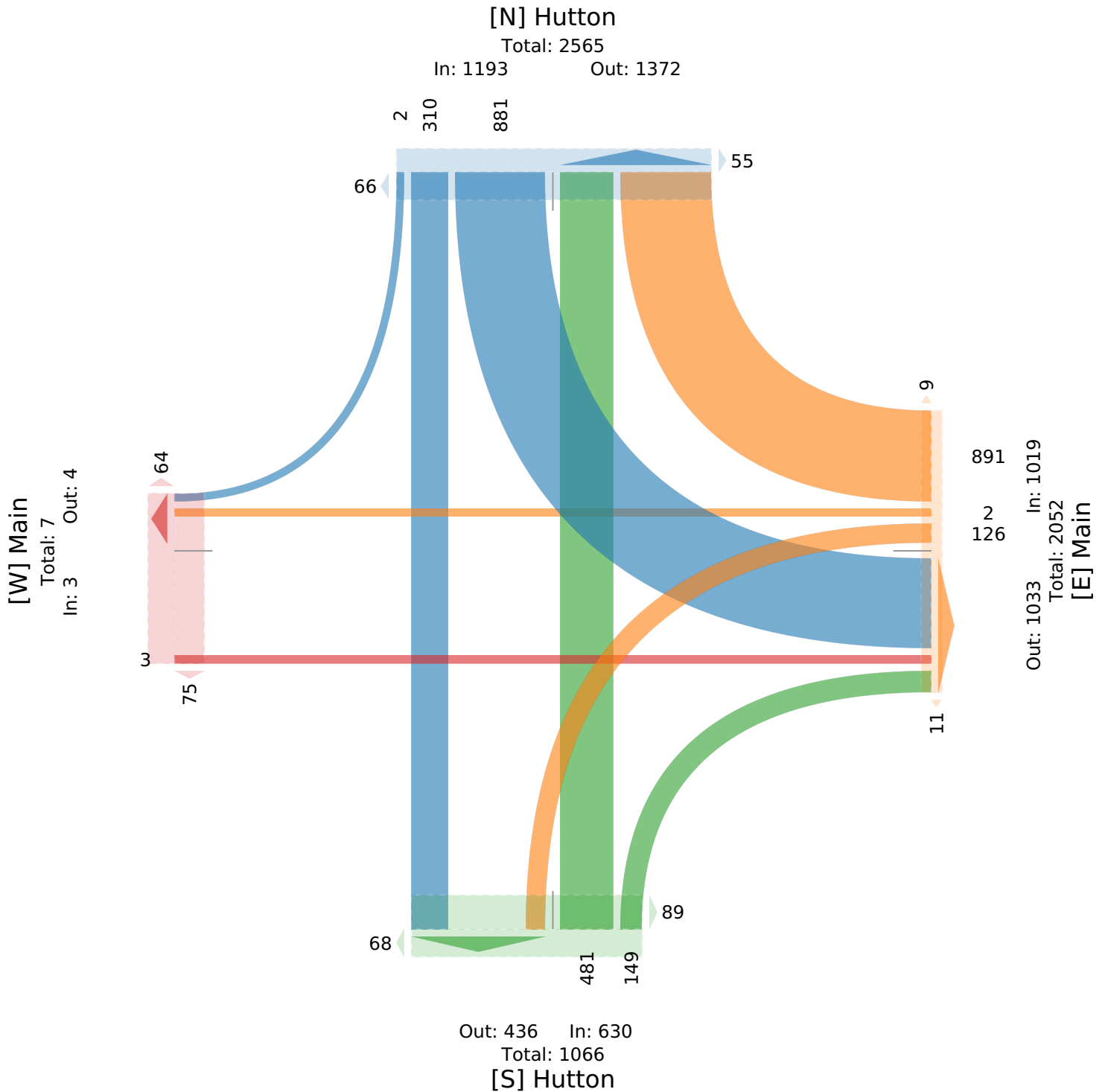
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886934, Location: 42.431204, -83.481005



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Main & Northville - TMC

Tue Oct 19, 2021

AM Peak (8 AM - 9 AM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886934, Location: 42.431204, -83.481005



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Main Eastbound							Main Westbound							Hutton Northbound							Hutton Southbound							
Time	L	T	R	U	App	Ped*		L	T	R	U	App	Ped*		L	T	R	U	App	Ped*		L	T	R	U	App	Ped*		Int
2021-10-19 8:00AM	0	0	0	0	0	0	1	7	0	44	0	51	0		0	22	12	0	34	3		55	23	0	0	78	1		163
8:15AM	0	0	0	0	0	0	1	5	0	24	0	29	1		0	29	23	0	52	5		61	11	0	0	72	3		153
8:30AM	0	0	0	0	0	0	2	5	0	43	0	48	0		0	28	15	0	43	6		54	16	1	0	71	5		162
8:45AM	0	0	0	0	0	0	0	6	0	56	0	62	0		0	31	7	0	38	3		63	17	0	0	80	2		180
Total	0	0	0	0	0	0	4	23	0	167	0	190	1		0	110	57	0	167	17		233	67	1	0	301	11		658
% Approach	0%	0%	0%	0%	0%	-	-	12.1%	0%	87.9%	0%	-	-		0%	65.9%	34.1%	0%	-	-		77.4%	22.3%	0.3%	0%	-	-		-
% Total	0%	0%	0%	0%	0%	0%	-	3.5%	0%	25.4%	0%	28.9%	-		0%	16.7%	8.7%	0%	25.4%	-		35.4%	10.2%	0.2%	0%	45.7%	-		-
PHF	-	-	-	-	-	-	-	0.821	-	0.746	-	0.766	-		-	0.887	0.620	-	0.803	-		0.925	0.728	-	-	0.938	-		0.913
Lights	0	0	0	0	0	0	-	23	0	163	0	186	-		0	110	57	0	167	-		228	62	0	0	290	-		643
% Lights	0%	0%	0%	0%	0%	-	-	100%	0%	97.6%	0%	97.9%	-		0%	100%	100%	0%	100%	-		97.9%	92.5%	0%	0%	96.3%	-		97.7%
Single-Unit Trucks	0	0	0	0	0	0	-	0	0	2	0	2	-		0	0	0	0	0	-		0	4	0	0	4	-		6
% Single-Unit Trucks	0%	0%	0%	0%	0%	-	-	0%	0%	1.2%	0%	1.1%	-		0%	0%	0%	0%	0%	-		0%	6.0%	0%	0%	1.3%	-		0.9%
Articulated Trucks	0	0	0	0	0	0	-	0	0	0	0	0	-		0	0	0	0	0	-		2	0	0	0	2	-		2
% Articulated Trucks	0%	0%	0%	0%	0%	-	-	0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0.9%	0%	0%	0%	0.7%	-		0.3%
Buses	0	0	0	0	0	0	-	0	0	2	0	2	-		0	0	0	0	0	-		3	1	0	0	4	-		6
% Buses	0%	0%	0%	0%	0%	-	-	0%	0%	1.2%	0%	1.1%	-		0%	0%	0%	0%	0%	-		1.3%	1.5%	0%	0%	1.3%	-		0.9%
Bicycles on Road	0	0	0	0	0	0	-	0	0	0	0	0	-		0	0	0	0	0	-		0	0	1	0	1	-		1
% Bicycles on Road	0%	0%	0%	0%	0%	-	-	0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0%	100%	0%	0.3%	-		0.2%
Pedestrians	-	-	-	-	-	-	4	-	-	-	-	-	1		-	-	-	-	-	17		-	-	-	-	-	10		
% Pedestrians	-	-	-	-	-	-	100%	-	-	-	-	-	100%		-	-	-	-	-	100%		-	-	-	-	-	90.9%		-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	0		-	-	-	-	-	0		-	-	-	-	-	1		
% Bicycles on Crosswalk	-	-	-	-	-	-	0%	-	-	-	-	-	0%		-	-	-	-	-	0%		-	-	-	-	-	9.1%		-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Main & Northville - TMC

Tue Oct 19, 2021

AM Peak (8 AM - 9 AM)

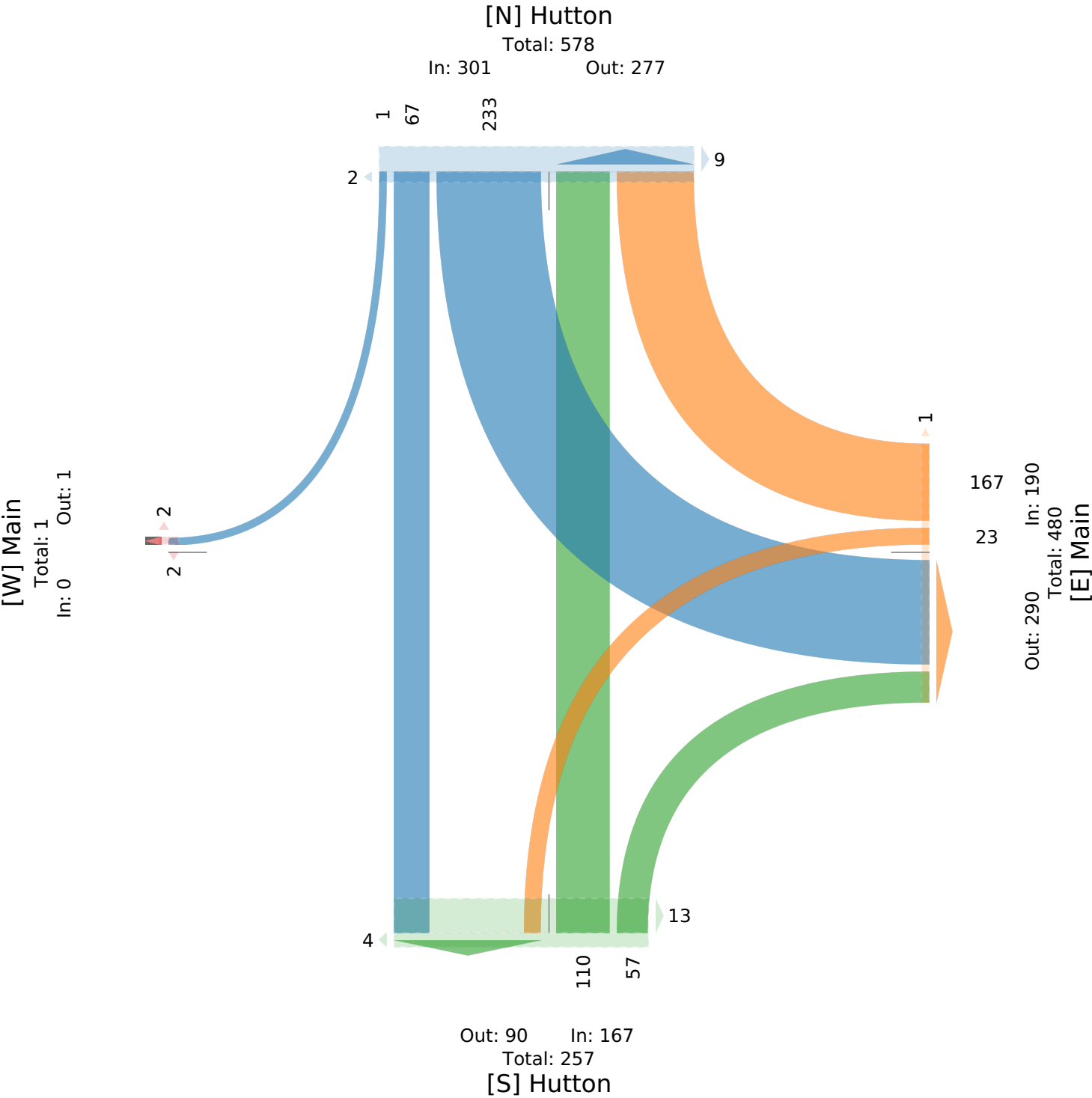
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886934, Location: 42.431204, -83.481005



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Main & Northville - TMC

Tue Oct 19, 2021

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886934, Location: 42.431204, -83.481005



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Main Eastbound						Main Westbound						Hutton Northbound						Hutton Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 4:30PM	0	1	0	0	1	22	14	0	87	0	101	0	0	34	6	0	40	10	74	22	0	0	96	15	238
4:45PM	0	0	0	0	0	12	13	0	85	0	98	2	0	31	12	0	43	22	61	34	0	0	95	11	236
5:00PM	0	0	0	0	0	3	13	0	74	0	87	2	0	42	5	0	47	10	57	18	1	0	76	6	210
5:15PM	0	0	0	0	0	17	6	1	80	0	87	5	0	34	1	0	35	12	66	22	0	0	88	5	210
Total	0	1	0	0	1	54	46	1	326	0	373	9	0	141	24	0	165	54	258	96	1	0	355	37	894
% Approach	0%	100%	0%	0%	-	-	12.3%	0.3%	87.4%	0%	-	-	0%	85.5%	14.5%	0%	-	-	72.7%	27.0%	0.3%	0%	-	-	-
% Total	0%	0.1%	0%	0%	0.1%	-	5.1%	0.1%	36.5%	0%	41.7%	-	0%	15.8%	2.7%	0%	18.5%	-	28.9%	10.7%	0.1%	0%	39.7%	-	-
PHF	-	-	-	-	-	-	0.821	-	0.934	-	0.918	-	-	0.854	0.500	-	0.891	-	0.872	0.705	-	-	0.914	-	0.935
Lights	0	0	0	0	0	-	44	0	325	0	369	-	0	140	24	0	164	-	256	93	0	0	349	-	882
% Lights	0%	0%	0%	0%	0%	-	95.7%	0%	99.7%	0%	98.9%	-	0%	99.3%	100%	0%	99.4%	-	99.2%	96.9%	0%	0%	98.3%	-	98.7%
Single-Unit Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	2	0	0	0	2	-	2
% Single-Unit Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.8%	0%	0%	0%	0.6%	-	0.2%
Articulated Trucks	0	0	0	0	0	-	2	0	0	0	2	-	0	0	0	0	0	-	0	0	0	0	0	-	2
% Articulated Trucks	0%	0%	0%	0%	0%	-	4.3%	0%	0%	0%	0.5%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.2%
Buses	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Bicycles on Road	0	1	0	0	1	-	0	1	1	0	2	-	0	1	0	0	1	-	0	3	1	0	4	-	8
% Bicycles on Road	0%	100%	0%	0%	100%	-	0%	100%	0.3%	0%	0.5%	-	0%	0.7%	0%	0%	0.6%	-	0%	3.1%	100%	0%	1.1%	-	0.9%
Pedestrians	-	-	-	-	-	54	-	-	-	-	-	9	-	-	-	-	-	54	-	-	-	-	-	36	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	97.3%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	2.7%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Main & Northville - TMC

Tue Oct 19, 2021

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

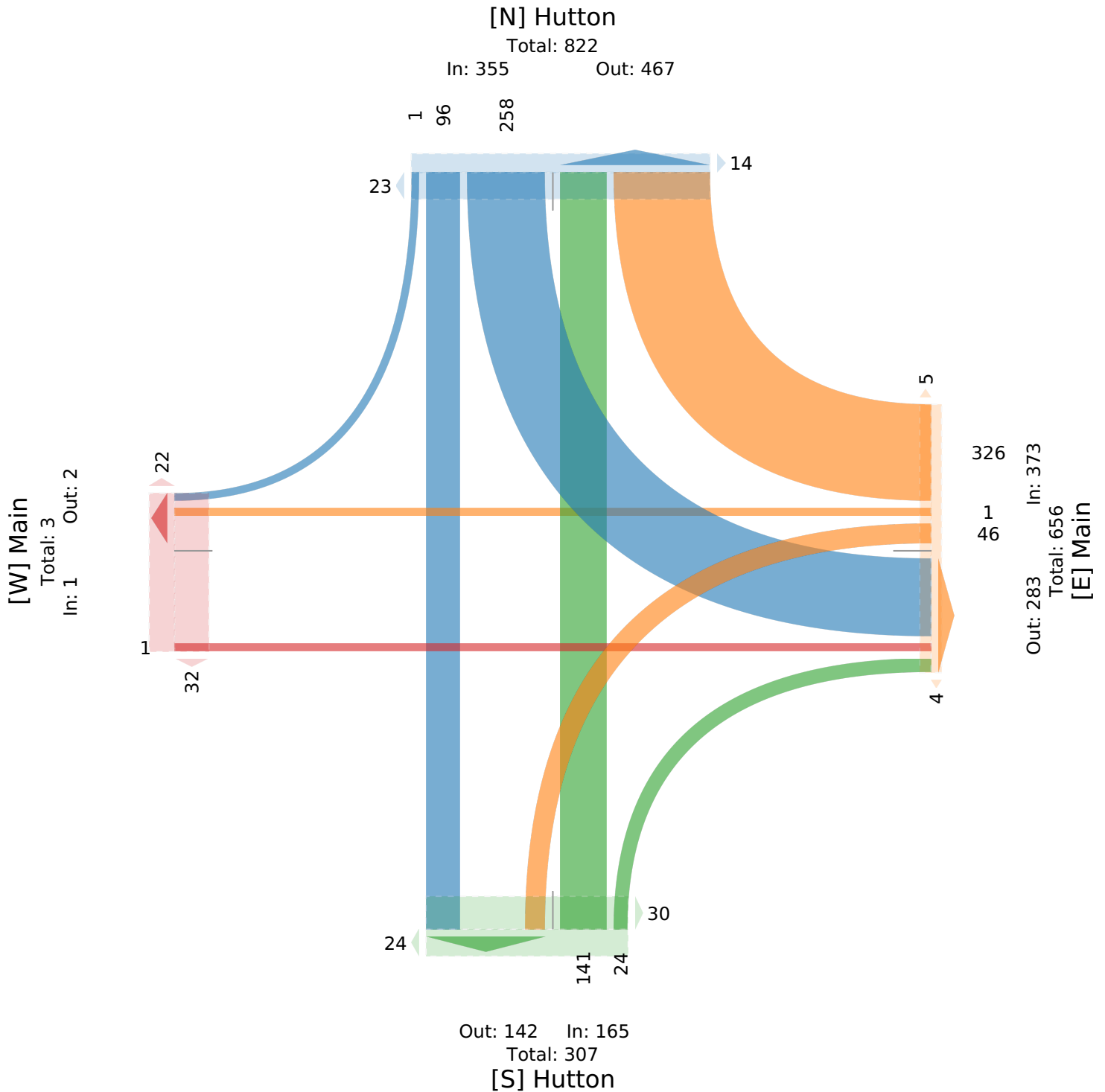
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886934, Location: 42.431204, -83.481005



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Main & Griswold - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886933, Location: 42.431332, -83.478768



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Main Eastbound						Main Westbound						Griswold Northbound						Griswold Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 7:00AM	1	11	1	0	13	1	1	21	15	0	37	0	1	23	4	0	28	0	16	11	11	0	38	0	116
7:15AM	1	19	0	0	20	1	0	31	16	0	47	0	2	20	3	0	25	0	8	18	9	0	35	0	127
7:30AM	5	27	0	0	32	0	3	28	19	0	50	0	4	20	1	0	25	1	14	18	5	0	37	2	144
7:45AM	1	31	2	0	34	0	0	43	22	0	65	0	4	32	4	0	40	0	24	18	19	0	61	1	200
Hourly Total	8	88	3	0	99	2	4	123	72	0	199	0	11	95	12	0	118	1	62	65	44	0	171	3	587
8:00AM	4	37	2	0	43	1	1	52	22	0	75	0	2	44	0	0	46	0	16	31	18	0	65	0	229
8:15AM	7	48	1	0	56	0	2	34	29	0	65	0	3	40	4	0	47	4	15	20	14	0	49	2	217
8:30AM	9	44	3	0	56	4	3	46	22	0	71	2	5	53	5	0	63	2	20	28	12	0	60	1	250
8:45AM	5	43	3	0	51	1	3	60	43	0	106	2	6	31	5	0	42	2	14	40	20	0	74	0	273
Hourly Total	25	172	9	0	206	6	9	192	116	0	317	4	16	168	14	0	198	8	65	119	64	0	248	3	969
4:00PM	11	46	7	0	64	4	4	55	41	0	100	1	12	45	10	0	67	2	38	35	21	0	94	0	325
4:15PM	11	52	4	0	67	0	4	54	36	0	94	1	6	43	5	0	54	1	31	35	25	0	91	0	306
4:30PM	9	56	7	0	72	6	2	83	49	0	134	0	4	54	5	0	63	2	41	40	18	0	99	1	368
4:45PM	8	54	1	0	63	4	6	78	53	0	137	1	6	49	3	0	58	0	39	42	20	0	101	1	359
Hourly Total	39	208	19	0	266	14	16	270	179	0	465	3	28	191	23	0	242	5	149	152	84	0	385	2	1358
5:00PM	12	47	4	0	63	8	3	67	61	0	131	1	2	68	4	0	74	1	46	38	25	0	109	3	377
5:15PM	7	55	3	0	65	3	5	69	62	0	136	0	6	53	7	0	66	4	46	53	13	0	112	0	379
5:30PM	15	55	5	0	75	3	0	71	51	0	122	2	3	51	3	0	57	2	36	59	22	0	117	3	371
5:45PM	14	58	5	0	77	3	2	71	68	0	141	2	4	56	3	0	63	1	36	41	25	0	102	4	383
Hourly Total	48	215	17	0	280	17	10	278	242	0	530	5	15	228	17	0	260	8	164	191	85	0	440	10	1510
Total	120	683	48	0	851	39	39	863	609	0	1511	12	70	682	66	0	818	22	440	527	277	0	1244	18	4424
% Approach	14.1%	80.3%	5.6%	0%	-	-	2.6%	57.1%	40.3%	0%	-	-	8.6%	83.4%	8.1%	0%	-	-	35.4%	42.4%	22.3%	0%	-	-	-
% Total	2.7%	15.4%	1.1%	0%	19.2%	-	0.9%	19.5%	13.8%	0%	34.2%	-	1.6%	15.4%	1.5%	0%	18.5%	-	9.9%	11.9%	6.3%	0%	28.1%	-	-
Lights	119	672	47	0	838	-	38	854	590	0	1482	-	70	675	66	0	811	-	430	520	272	0	1222	-	4353
% Lights	99.2%	98.4%	97.9%	0%	98.5%	-	97.4%	99.0%	96.9%	0%	98.1%	-	100%	99.0%	100%	0%	99.1%	-	97.7%	98.7%	98.2%	0%	98.2%	-	98.4%
Single-Unit Trucks	0	3	0	0	3	-	1	4	9	0	14	-	0	3	0	0	3	-	4	4	5	0	13	-	33
% Single-Unit Trucks	0%	0.4%	0%	0%	0.4%	-	2.6%	0.5%	1.5%	0%	0.9%	-	0%	0.4%	0%	0%	0.4%	-	0.9%	0.8%	1.8%	0%	1.0%	-	0.7%
Articulated Trucks	0	2	0	0	2	-	0	2	3	0	5	-	0	0	0	0	0	-	1	0	0	0	1	-	8
% Articulated Trucks	0%	0.3%	0%	0%	0.2%	-	0%	0.2%	0.5%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0.2%	0%	0%	0%	0.1%	-	0.2%
Buses	0	3	0	0	3	-	0	1	7	0	8	-	0	1	0	0	1	-	5	1	0	0	6	-	18
% Buses	0%	0.4%	0%	0%	0.4%	-	0%	0.1%	1.1%	0%	0.5%	-	0%	0.1%	0%	0%	0.1%	-	1.1%	0.2%	0%	0%	0.5%	-	0.4%
Bicycles on Road	1	3	1	0	5	-	0	2	0	0	2	-	0	3	0	0	3	-	0	2	0	0	2	-	12
% Bicycles on Road	0.8%	0.4%	2.1%	0%	0.6%	-	0%	0.2%	0%	0%	0.1%	-	0%	0.4%	0%	0%	0.4%	-	0%	0.4%	0%	0%	0.2%	-	0.3%
Pedestrians	-	-	-	-	-	35	-	-	-	-	-	9	-	-	-	-	-	19	-	-	-	-	-	15	
% Pedestrians	-	-	-	-	-	89.7%	-	-	-	-	-	75.0%	-	-	-	-	-	86.4%	-	-	-	-	-	83.3%	-
Bicycles on Crosswalk	-	-	-	-	-	4	-	-	-	-	-	3	-	-	-	-	-	3	-	-	-	-	-	3	
% Bicycles on Crosswalk	-	-	-	-	-	10.3%	-	-	-	-	-	25.0%	-	-	-	-	-	13.6%	-	-	-	-	-	16.7%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Main & Griswold - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

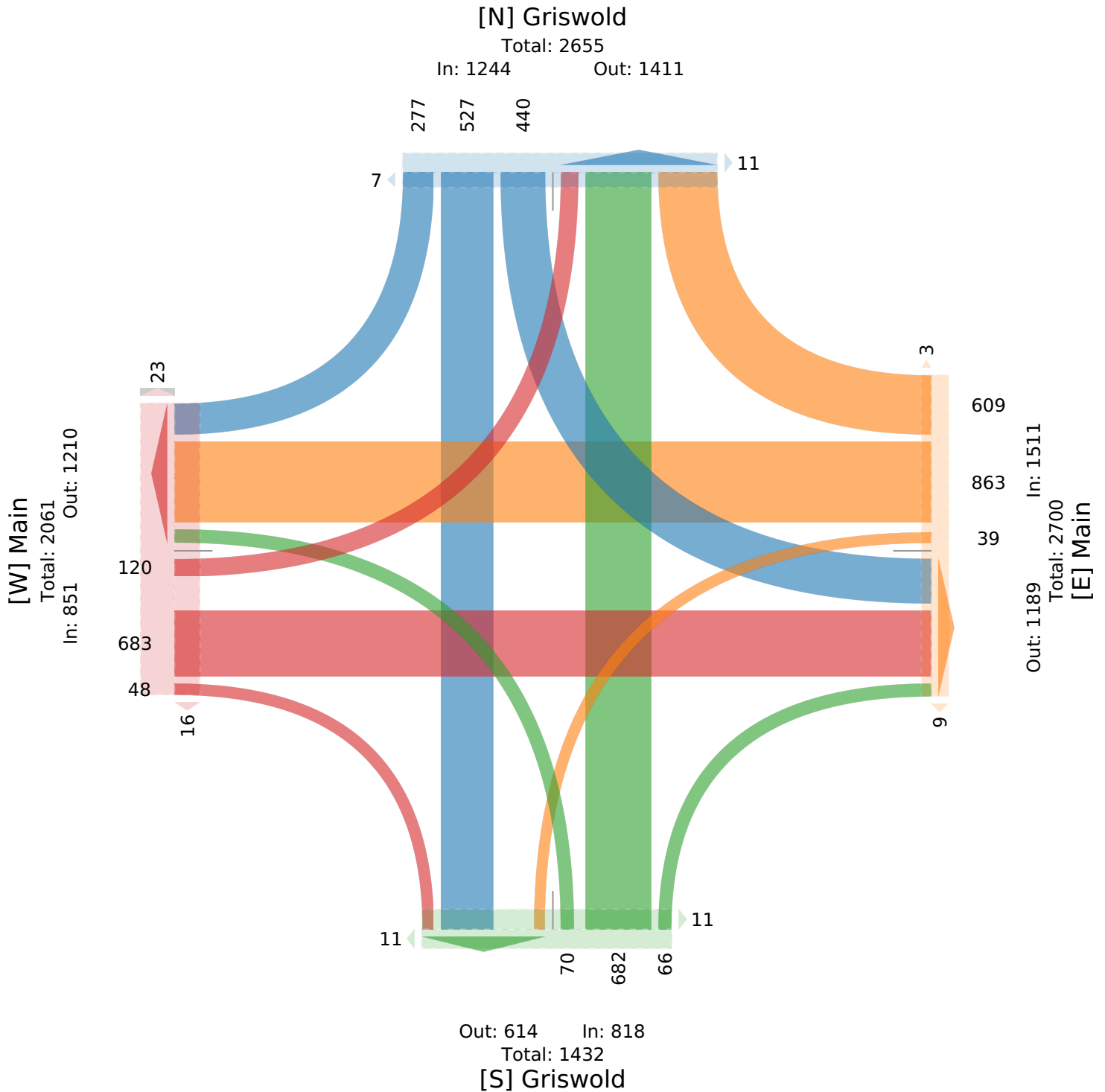
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886933, Location: 42.431332, -83.478768



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Main & Griswold - TMC

Tue Oct 19, 2021

AM Peak (8 AM - 9 AM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886933, Location: 42.431332, -83.478768



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Main Eastbound						Main Westbound						Griswold Northbound						Griswold Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 8:00AM	4	37	2	0	43	1	1	52	22	0	75	0	2	44	0	0	46	0	16	31	18	0	65	0	229
8:15AM	7	48	1	0	56	0	2	34	29	0	65	0	3	40	4	0	47	4	15	20	14	0	49	2	217
8:30AM	9	44	3	0	56	4	3	46	22	0	71	2	5	53	5	0	63	2	20	28	12	0	60	1	250
8:45AM	5	43	3	0	51	1	3	60	43	0	106	2	6	31	5	0	42	2	14	40	20	0	74	0	273
Total	25	172	9	0	206	6	9	192	116	0	317	4	16	168	14	0	198	8	65	119	64	0	248	3	969
% Approach	12.1%	83.5%	4.4%	0%	-	-	2.8%	60.6%	36.6%	0%	-	-	8.1%	84.8%	7.1%	0%	-	-	26.2%	48.0%	25.8%	0%	-	-	-
% Total	2.6%	17.8%	0.9%	0%	21.3%	-	0.9%	19.8%	12.0%	0%	32.7%	-	1.7%	17.3%	1.4%	0%	20.4%	-	6.7%	12.3%	6.6%	0%	25.6%	-	-
PHF	0.694	0.896	0.750	-	0.920	-	0.750	0.800	0.674	-	0.748	-	0.667	0.792	0.700	-	0.786	-	0.813	0.744	0.800	-	0.838	-	0.887
Lights	25	166	9	0	200	-	9	189	105	0	303	-	16	165	14	0	195	-	60	118	64	0	242	-	940
% Lights	100%	96.5%	100%	0%	97.1%	-	100%	98.4%	90.5%	0%	95.6%	-	100%	98.2%	100%	0%	98.5%	-	92.3%	99.2%	100%	0%	97.6%	-	97.0%
Single-Unit Trucks	0	1	0	0	1	-	0	2	5	0	7	-	0	2	0	0	2	-	2	1	0	0	3	-	13
% Single-Unit Trucks	0%	0.6%	0%	0%	0.5%	-	0%	1.0%	4.3%	0%	2.2%	-	0%	1.2%	0%	0%	1.0%	-	3.1%	0.8%	0%	0%	1.2%	-	1.3%
Articulated Trucks	0	2	0	0	2	-	0	0	3	0	3	-	0	0	0	0	0	-	0	0	0	0	0	-	5
% Articulated Trucks	0%	1.2%	0%	0%	1.0%	-	0%	0%	2.6%	0%	0.9%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.5%
Buses	0	3	0	0	3	-	0	1	3	0	4	-	0	1	0	0	1	-	3	0	0	0	3	-	11
% Buses	0%	1.7%	0%	0%	1.5%	-	0%	0.5%	2.6%	0%	1.3%	-	0%	0.6%	0%	0%	0.5%	-	4.6%	0%	0%	0%	1.2%	-	1.1%
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	-	6	-	-	-	-	-	4	-	-	-	-	-	8	-	-	-	-	-	3	-
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	100%
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Main & Griswold - TMC

Tue Oct 19, 2021

AM Peak (8 AM - 9 AM)

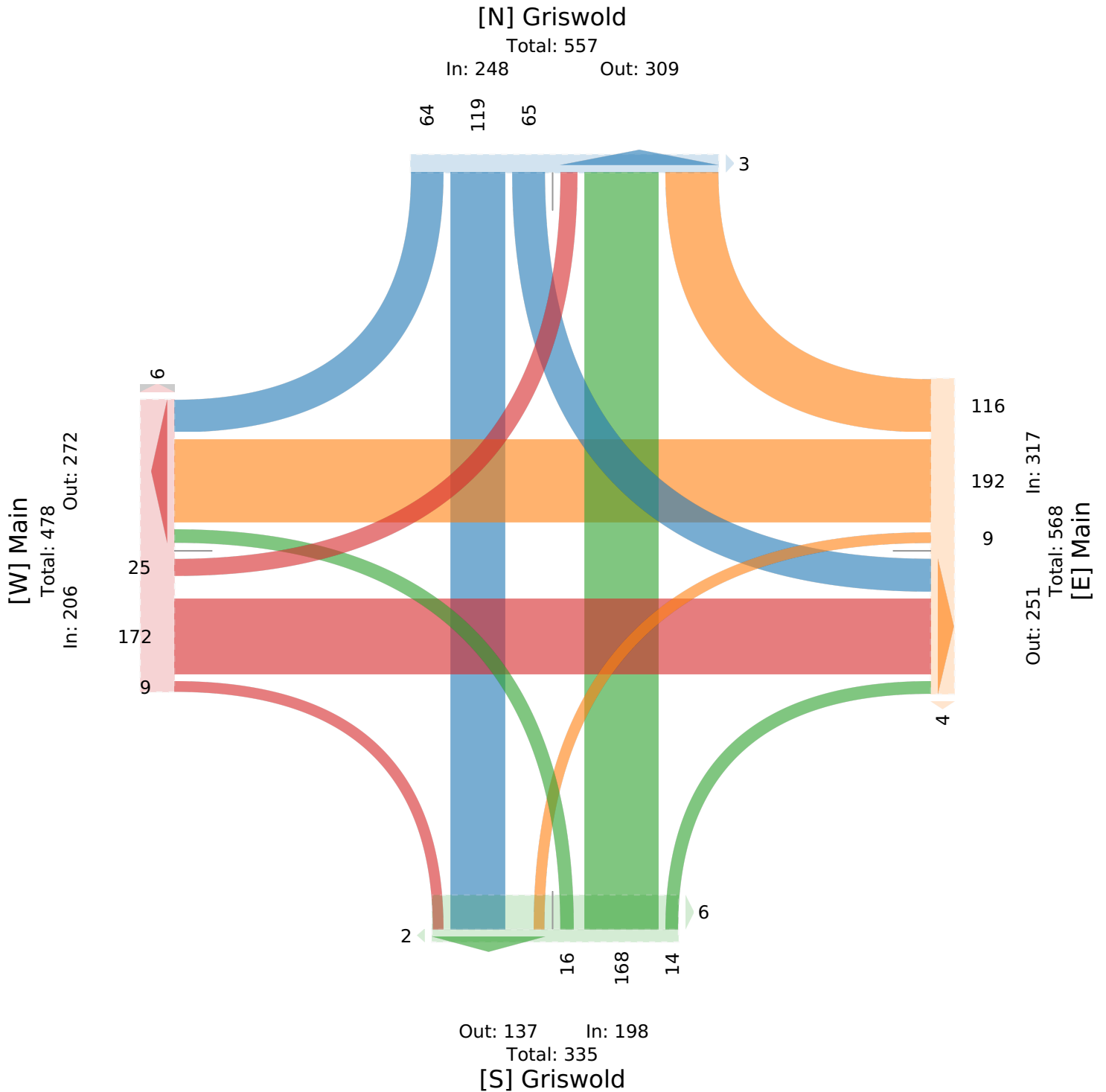
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886933, Location: 42.431332, -83.478768



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Main & Griswold - TMC

Tue Oct 19, 2021

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886933, Location: 42.431332, -83.478768



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Main Eastbound						Main Westbound						Griswold Northbound						Griswold Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 5:00PM	12	47	4	0	63	8	3	67	61	0	131	1	2	68	4	0	74	1	46	38	25	0	109	3	377
5:15PM	7	55	3	0	65	3	5	69	62	0	136	0	6	53	7	0	66	4	46	53	13	0	112	0	379
5:30PM	15	55	5	0	75	3	0	71	51	0	122	2	3	51	3	0	57	2	36	59	22	0	117	3	371
5:45PM	14	58	5	0	77	3	2	71	68	0	141	2	4	56	3	0	63	1	36	41	25	0	102	4	383
Total	48	215	17	0	280	17	10	278	242	0	530	5	15	228	17	0	260	8	164	191	85	0	440	10	1510
% Approach	17.1%	76.8%	6.1%	0%	-	-	1.9%	52.5%	45.7%	0%	-	-	5.8%	87.7%	6.5%	0%	-	-	37.3%	43.4%	19.3%	0%	-	-	-
% Total	3.2%	14.2%	1.1%	0%	18.5%	-	0.7%	18.4%	16.0%	0%	35.1%	-	1.0%	15.1%	1.1%	0%	17.2%	-	10.9%	12.6%	5.6%	0%	29.1%	-	-
PHF	0.800	0.927	0.800	-	0.918	-	0.500	0.972	0.890	-	0.936	-	0.625	0.835	0.607	-	0.875	-	0.891	0.819	0.850	-	0.946	-	0.988
Lights	48	215	16	0	279	-	9	275	239	0	523	-	15	226	17	0	258	-	164	190	85	0	439	-	1499
% Lights	100%	100%	94.1%	0%	99.6%	-	90.0%	98.9%	98.8%	0%	98.7%	-	100%	99.1%	100%	0%	99.2%	-	100%	99.5%	100%	0%	99.8%	-	99.3%
Single-Unit Trucks	0	0	0	0	0	-	1	0	3	0	4	-	0	1	0	0	1	-	0	0	0	0	0	-	5
% Single-Unit Trucks	0%	0%	0%	0%	0%	-	10.0%	0%	1.2%	0%	0.8%	-	0%	0.4%	0%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0.3%
Articulated Trucks	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	0	0	0	0	0	-	1
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0.4%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.1%
Buses	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Bicycles on Road	0	0	1	0	1	-	0	2	0	0	2	-	0	1	0	0	1	-	0	1	0	0	1	-	5
% Bicycles on Road	0%	0%	5.9%	0%	0.4%	-	0%	0.7%	0%	0%	0.4%	-	0%	0.4%	0%	0%	0.4%	-	0%	0.5%	0%	0%	0.2%	-	0.3%
Pedestrians	-	-	-	-	-	14	-	-	-	-	-	3	-	-	-	-	-	5	-	-	-	-	-	8	
% Pedestrians	-	-	-	-	-	82.4%	-	-	-	-	-	60.0%	-	-	-	-	-	62.5%	-	-	-	-	-	80.0%	-
Bicycles on Crosswalk	-	-	-	-	-	3	-	-	-	-	-	2	-	-	-	-	-	3	-	-	-	-	-	2	
% Bicycles on Crosswalk	-	-	-	-	-	17.6%	-	-	-	-	-	40.0%	-	-	-	-	-	37.5%	-	-	-	-	-	20.0%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Cady & Main - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886950, Location: 42.431396, -83.477276



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Main Eastbound					Main Westbound					Cady Northbound					
Time	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	Int
2021-10-19 7:00AM	32	0	0	32	0	0	38	0	38	0	0	1	0	1	0	71
7:15AM	30	2	0	32	0	0	45	0	45	0	1	1	0	2	0	79
7:30AM	46	0	0	46	0	0	48	0	48	0	0	1	0	1	0	95
7:45AM	60	1	0	61	0	3	68	0	71	0	0	3	0	3	1	135
Hourly Total	168	3	0	171	0	3	199	0	202	0	1	6	0	7	1	380
8:00AM	54	2	0	56	0	1	71	0	72	0	0	3	0	3	0	131
8:15AM	61	8	0	69	0	2	68	0	70	0	0	3	0	3	4	142
8:30AM	67	8	0	75	0	4	75	0	79	0	3	8	0	11	2	165
8:45AM	62	10	0	72	0	6	101	0	107	0	2	3	0	5	2	184
Hourly Total	244	28	0	272	0	13	315	0	328	0	5	17	0	22	8	622
4:00PM	92	5	0	97	0	5	100	0	105	0	0	7	0	7	2	209
4:15PM	81	13	0	94	0	7	86	0	93	0	1	7	0	8	1	195
4:30PM	103	6	0	109	0	6	134	0	140	0	5	10	0	15	3	264
4:45PM	98	7	0	105	0	5	124	0	129	0	2	9	0	11	0	245
Hourly Total	374	31	0	405	0	23	444	0	467	0	8	33	0	41	6	913
5:00PM	91	13	0	104	0	6	124	0	130	0	5	5	0	10	1	244
5:15PM	103	16	0	119	0	4	129	0	133	0	2	10	0	12	6	264
5:30PM	98	5	0	103	0	4	124	0	128	0	2	4	0	6	2	237
5:45PM	98	7	0	105	0	4	127	0	131	0	2	3	0	5	3	241
Hourly Total	390	41	0	431	0	18	504	0	522	0	11	22	0	33	12	986
Total	1176	103	0	1279	0	57	1462	0	1519	0	25	78	0	103	27	2901
% Approach	91.9%	8.1%	0%	-	-	3.8%	96.2%	0%	-	-	24.3%	75.7%	0%	-	-	-
% Total	40.5%	3.6%	0%	44.1%	-	2.0%	50.4%	0%	52.4%	-	0.9%	2.7%	0%	3.6%	-	-
Lights	1151	103	0	1254	-	57	1431	0	1488	-	25	76	0	101	-	2843
% Lights	97.9%	100%	0%	98.0%	-	100%	97.9%	0%	98.0%	-	100%	97.4%	0%	98.1%	-	98.0%
Single-Unit Trucks	8	0	0	8	-	0	15	0	15	-	0	2	0	2	-	25
% Single-Unit Trucks	0.7%	0%	0%	0.6%	-	0%	1.0%	0%	1.0%	-	0%	2.6%	0%	1.9%	-	0.9%
Articulated Trucks	6	0	0	6	-	0	5	0	5	-	0	0	0	0	-	11
% Articulated Trucks	0.5%	0%	0%	0.5%	-	0%	0.3%	0%	0.3%	-	0%	0%	0%	0%	-	0.4%
Buses	8	0	0	8	-	0	9	0	9	-	0	0	0	0	-	17
% Buses	0.7%	0%	0%	0.6%	-	0%	0.6%	0%	0.6%	-	0%	0%	0%	0%	-	0.6%
Bicycles on Road	3	0	0	3	-	0	2	0	2	-	0	0	0	0	-	5
% Bicycles on Road	0.3%	0%	0%	0.2%	-	0%	0.1%	0%	0.1%	-	0%	0%	0%	0%	-	0.2%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	22	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	81.5%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	5	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.5%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Cady & Main - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

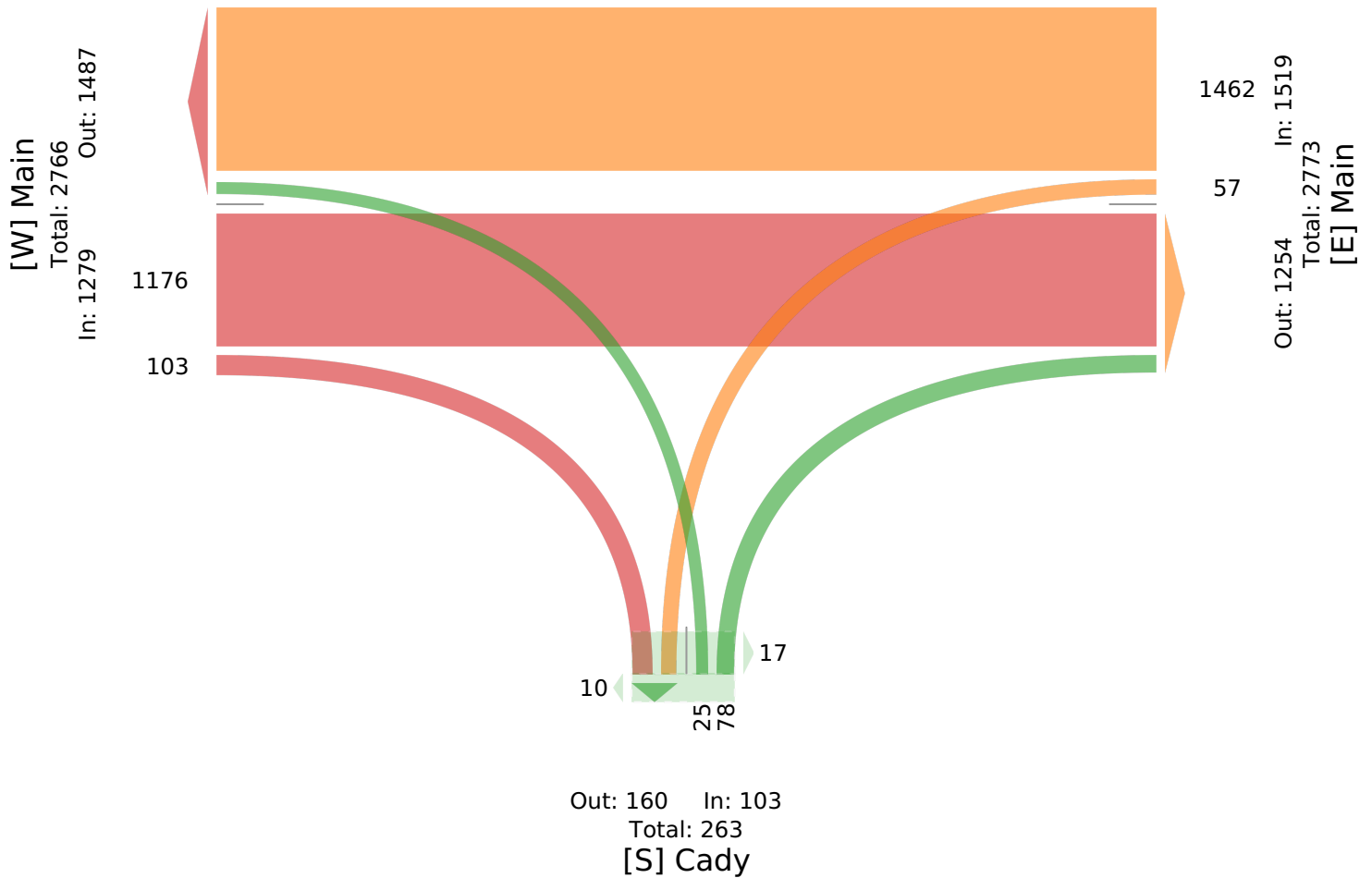
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886950, Location: 42.431396, -83.477276



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Cady & Main - TMC

Tue Oct 19, 2021

AM Peak (8 AM - 9 AM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886950, Location: 42.431396, -83.477276



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Main Eastbound					Main Westbound					Cady Northbound					
Time	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	Int
2021-10-19 8:00AM	54	2	0	56	0	1	71	0	72	0	0	3	0	3	0	131
8:15AM	61	8	0	69	0	2	68	0	70	0	0	3	0	3	4	142
8:30AM	67	8	0	75	0	4	75	0	79	0	3	8	0	11	2	165
8:45AM	62	10	0	72	0	6	101	0	107	0	2	3	0	5	2	184
Total	244	28	0	272	0	13	315	0	328	0	5	17	0	22	8	622
% Approach	89.7%	10.3%	0%	-	-	4.0%	96.0%	0%	-	-	22.7%	77.3%	0%	-	-	-
% Total	39.2%	4.5%	0%	43.7%	-	2.1%	50.6%	0%	52.7%	-	0.8%	2.7%	0%	3.5%	-	-
PHF	0.910	0.700	-	0.907	-	0.542	0.780	-	0.766	-	0.417	0.531	-	0.500	-	0.845
Lights	233	28	0	261	-	13	300	0	313	-	5	17	0	22	-	596
% Lights	95.5%	100%	0%	96.0%	-	100%	95.2%	0%	95.4%	-	100%	100%	0%	100%	-	95.8%
Single-Unit Trucks	3	0	0	3	-	0	7	0	7	-	0	0	0	0	-	10
% Single-Unit Trucks	1.2%	0%	0%	1.1%	-	0%	2.2%	0%	2.1%	-	0%	0%	0%	0%	-	1.6%
Articulated Trucks	2	0	0	2	-	0	3	0	3	-	0	0	0	0	-	5
% Articulated Trucks	0.8%	0%	0%	0.7%	-	0%	1.0%	0%	0.9%	-	0%	0%	0%	0%	-	0.8%
Buses	6	0	0	6	-	0	5	0	5	-	0	0	0	0	-	11
% Buses	2.5%	0%	0%	2.2%	-	0%	1.6%	0%	1.5%	-	0%	0%	0%	0%	-	1.8%
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Bicycles on Road	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	8	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Cady & Main - TMC

Tue Oct 19, 2021

AM Peak (8 AM - 9 AM)

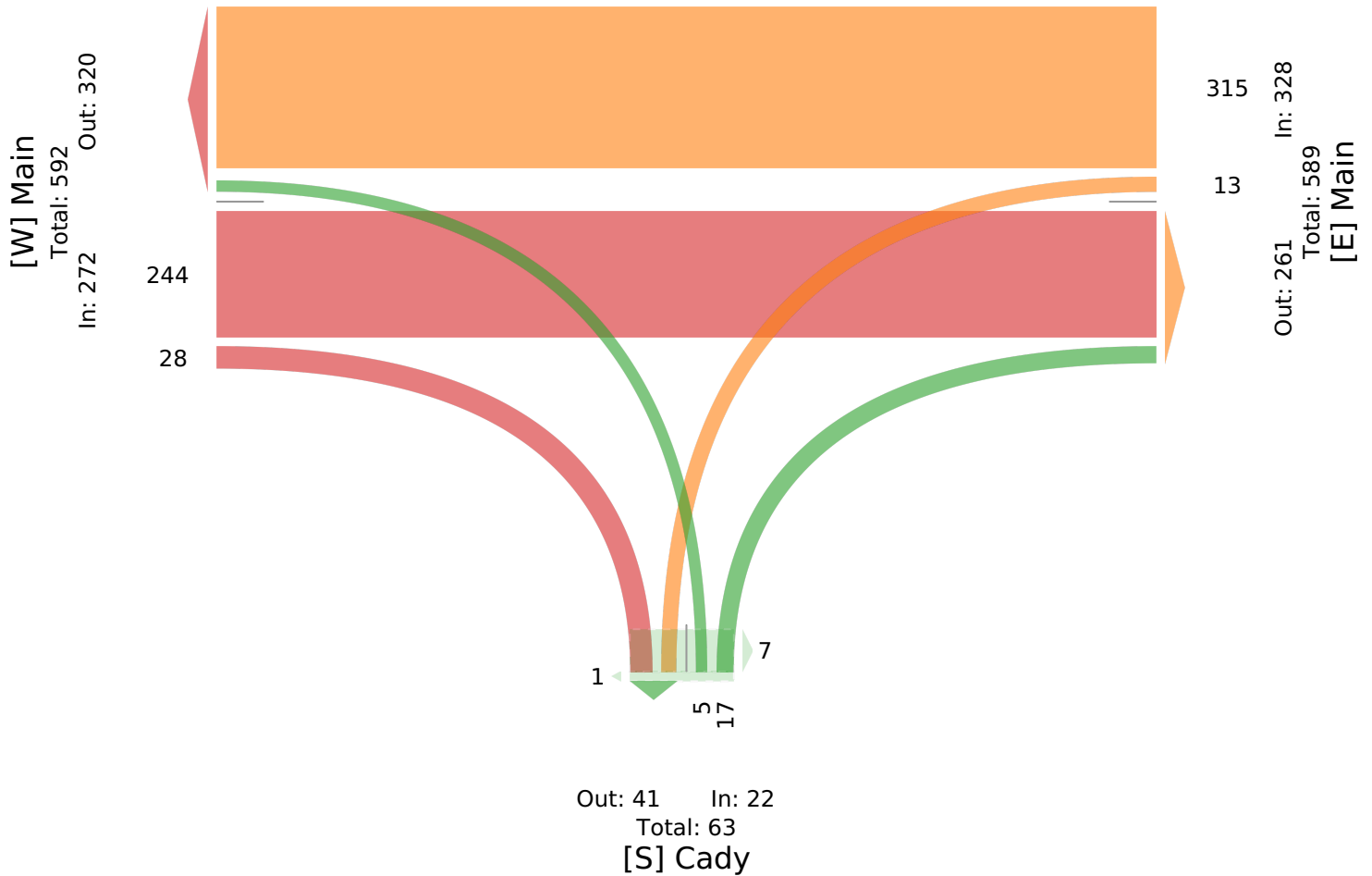
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886950, Location: 42.431396, -83.477276



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Cady & Main - TMC

Tue Oct 19, 2021

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886950, Location: 42.431396, -83.477276



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Main Eastbound					Main Westbound					Cady Northbound					
Time	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	Int
2021-10-19 4:30PM	103	6	0	109	0	6	134	0	140	0	5	10	0	15	3	264
4:45PM	98	7	0	105	0	5	124	0	129	0	2	9	0	11	0	245
5:00PM	91	13	0	104	0	6	124	0	130	0	5	5	0	10	1	244
5:15PM	103	16	0	119	0	4	129	0	133	0	2	10	0	12	6	264
Total	395	42	0	437	0	21	511	0	532	0	14	34	0	48	10	1017
% Approach	90.4%	9.6%	0%	-	-	3.9%	96.1%	0%	-	-	29.2%	70.8%	0%	-	-	-
% Total	38.8%	4.1%	0%	43.0%	-	2.1%	50.2%	0%	52.3%	-	1.4%	3.3%	0%	4.7%	-	-
PHF	0.956	0.656	-	0.916	-	0.875	0.950	-	0.946	-	0.700	0.850	-	0.800	-	0.964
Lights	389	42	0	431	-	21	507	0	528	-	14	34	0	48	-	1007
% Lights	98.5%	100%	0%	98.6%	-	100%	99.2%	0%	99.2%	-	100%	100%	0%	100%	-	99.0%
Single-Unit Trucks	2	0	0	2	-	0	1	0	1	-	0	0	0	0	-	3
% Single-Unit Trucks	0.5%	0%	0%	0.5%	-	0%	0.2%	0%	0.2%	-	0%	0%	0%	0%	-	0.3%
Articulated Trucks	3	0	0	3	-	0	1	0	1	-	0	0	0	0	-	4
% Articulated Trucks	0.8%	0%	0%	0.7%	-	0%	0.2%	0%	0.2%	-	0%	0%	0%	0%	-	0.4%
Buses	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Bicycles on Road	1	0	0	1	-	0	2	0	2	-	0	0	0	0	-	3
% Bicycles on Road	0.3%	0%	0%	0.2%	-	0%	0.4%	0%	0.4%	-	0%	0%	0%	0%	-	0.3%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	8	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80.0%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	2	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20.0%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Cady & Main - TMC

Tue Oct 19, 2021

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

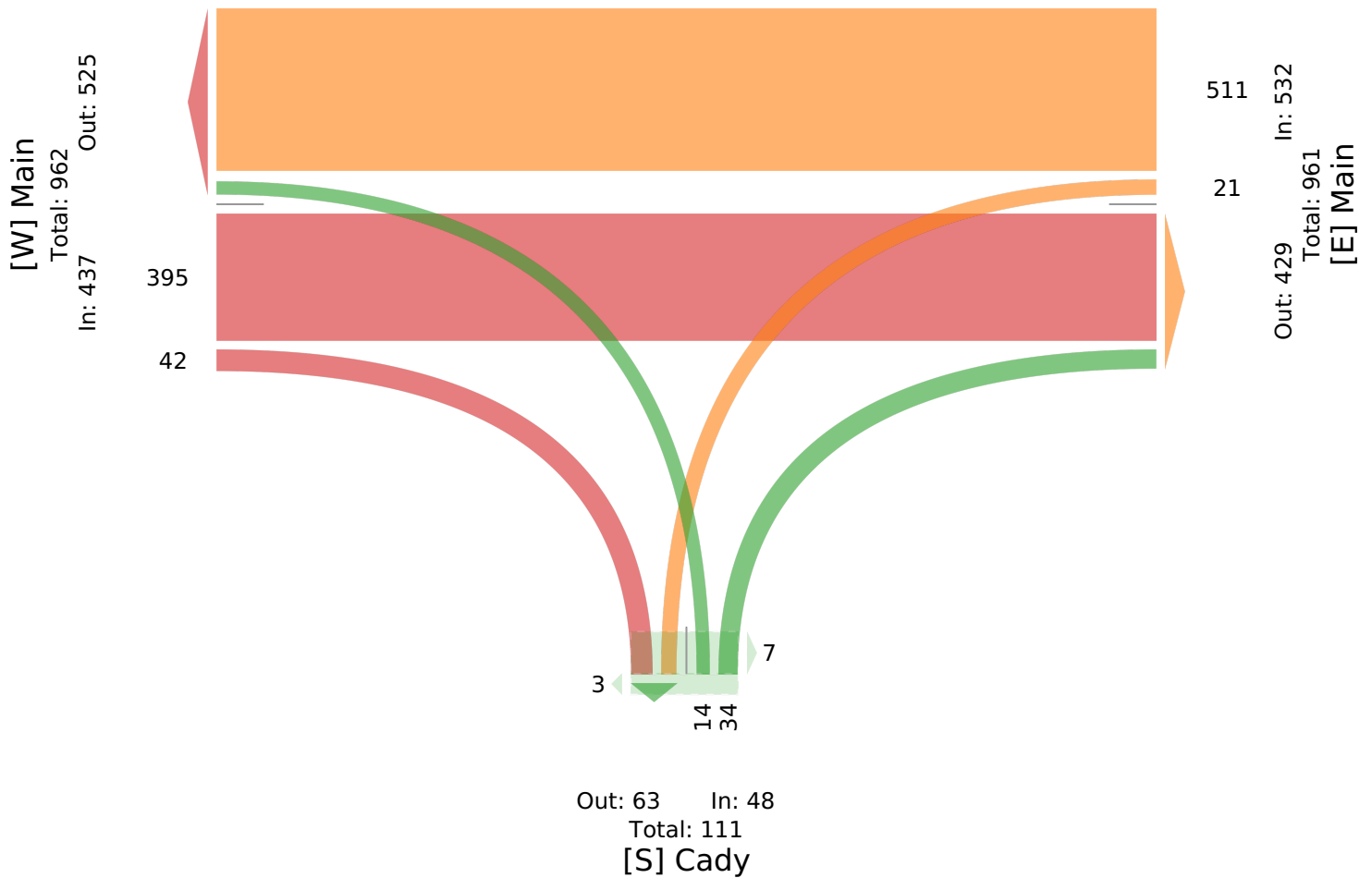
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886950, Location: 42.431396, -83.477276



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Cady & Wing - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886939, Location: 42.429981, -83.484583



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Cady Eastbound						Cady Westbound						Wing Northbound						Wing Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 7:00AM	0	2	0	0	2	0	1	3	11	0	15	0	2	14	1	0	17	1	13	24	0	0	37	1	71
7:15AM	0	7	0	0	7	0	1	1	14	0	16	0	0	25	0	0	25	0	11	22	4	0	37	1	85
7:30AM	2	5	1	0	8	0	1	5	9	0	15	0	3	25	2	0	30	2	14	28	2	0	44	1	97
7:45AM	1	4	0	0	5	0	1	7	14	0	22	0	3	29	2	0	34	1	34	43	1	0	78	0	139
Hourly Total	3	18	1	0	22	0	4	16	48	0	68	0	8	93	5	0	106	4	72	117	7	0	196	3	392
8:00AM	5	24	1	0	30	0	2	11	9	0	22	0	4	20	1	0	25	0	19	62	5	0	86	0	163
8:15AM	4	12	3	0	19	0	1	17	13	0	31	0	7	24	2	0	33	0	20	37	2	0	59	0	142
8:30AM	5	15	2	0	22	4	0	16	17	0	33	2	5	24	2	0	31	0	14	39	3	0	56	4	142
8:45AM	3	10	2	0	15	1	0	5	14	0	19	1	4	22	1	0	27	1	17	33	6	0	56	3	117
Hourly Total	17	61	8	0	86	5	3	49	53	0	105	3	20	90	6	0	116	1	70	171	16	0	257	7	564
4:00PM	6	19	4	0	29	2	3	12	18	0	33	0	4	41	7	0	52	2	22	44	8	0	74	0	188
4:15PM	8	9	2	0	19	6	2	18	15	0	35	1	3	32	5	0	40	3	17	44	7	0	68	0	162
4:30PM	9	11	3	0	23	4	7	10	25	0	42	1	2	58	0	0	60	2	11	44	4	0	59	3	184
4:45PM	6	10	5	0	21	1	2	8	23	0	33	2	2	55	3	0	60	4	17	64	4	0	85	4	199
Hourly Total	29	49	14	0	92	13	14	48	81	0	143	4	11	186	15	0	212	11	67	196	23	0	286	7	733
5:00PM	4	10	3	0	17	2	4	12	25	0	41	4	3	43	8	0	54	2	12	62	2	0	76	5	188
5:15PM	5	11	1	0	17	2	1	12	22	0	35	3	3	59	6	0	68	4	24	58	5	0	87	4	207
5:30PM	7	9	1	0	17	5	2	12	18	0	32	7	5	40	3	0	48	8	17	46	2	0	65	6	162
5:45PM	2	7	2	0	11	0	4	12	15	0	31	4	1	52	3	0	56	3	24	55	2	0	81	7	179
Hourly Total	18	37	7	0	62	9	11	48	80	0	139	18	12	194	20	0	226	17	77	221	11	0	309	22	736
Total	67	165	30	0	262	27	32	161	262	0	455	25	51	563	46	0	660	33	286	705	57	0	1048	39	2425
% Approach	25.6%	63.0%	11.5%	0%	-	-	7.0%	35.4%	57.6%	0%	-	-	7.7%	85.3%	7.0%	0%	-	-	27.3%	67.3%	5.4%	0%	-	-	-
% Total	2.8%	6.8%	1.2%	0%	10.8%	-	1.3%	6.6%	10.8%	0%	18.8%	-	2.1%	23.2%	1.9%	0%	27.2%	-	11.8%	29.1%	2.4%	0%	43.2%	-	-
Lights	67	159	30	0	256	-	31	159	259	0	449	-	51	545	43	0	639	-	285	689	56	0	1030	-	2374
% Lights	100%	96.4%	100%	0%	97.7%	-	96.9%	98.8%	98.9%	0%	98.7%	-	100%	96.8%	93.5%	0%	96.8%	-	99.7%	97.7%	98.2%	0%	98.3%	-	97.9%
Single-Unit Trucks	0	3	0	0	3	-	0	1	1	0	2	-	0	6	2	0	8	-	0	2	0	0	2	-	15
% Single-Unit Trucks	0%	1.8%	0%	0%	1.1%	-	0%	0.6%	0.4%	0%	0.4%	-	0%	1.1%	4.3%	0%	1.2%	-	0%	0.3%	0%	0%	0.2%	-	0.6%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses	0	1	0	0	1	-	1	0	1	0	2	-	0	7	0	0	7	-	0	6	0	0	6	-	16
% Buses	0%	0.6%	0%	0%	0.4%	-	3.1%	0%	0.4%	0%	0.4%	-	0%	1.2%	0%	0%	1.1%	-	0%	0.9%	0%	0%	0.6%	-	0.7%
Bicycles on Road	0	2	0	0	2	-	0	1	1	0	2	-	0	5	1	0	6	-	1	8	1	0	10	-	20
% Bicycles on Road	0%	1.2%	0%	0%	0.8%	-	0%	0.6%	0.4%	0%	0.4%	-	0%	0.9%	2.2%	0%	0.9%	-	0.3%	1.1%	1.8%	0%	1.0%	-	0.8%
Pedestrians	-	-	-	-	-	26	-	-	-	-	-	23	-	-	-	-	-	32	-	-	-	-	-	37	
% Pedestrians	-	-	-	-	-	96.3%	-	-	-	-	-	92.0%	-	-	-	-	-	97.0%	-	-	-	-	-	94.9%	
Bicycles on Crosswalk	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	2	
% Bicycles on Crosswalk	-	-	-	-	-	3.7%	-	-	-	-	-	8.0%	-	-	-	-	-	3.0%	-	-	-	-	-	5.1%	

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Cady & Wing - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

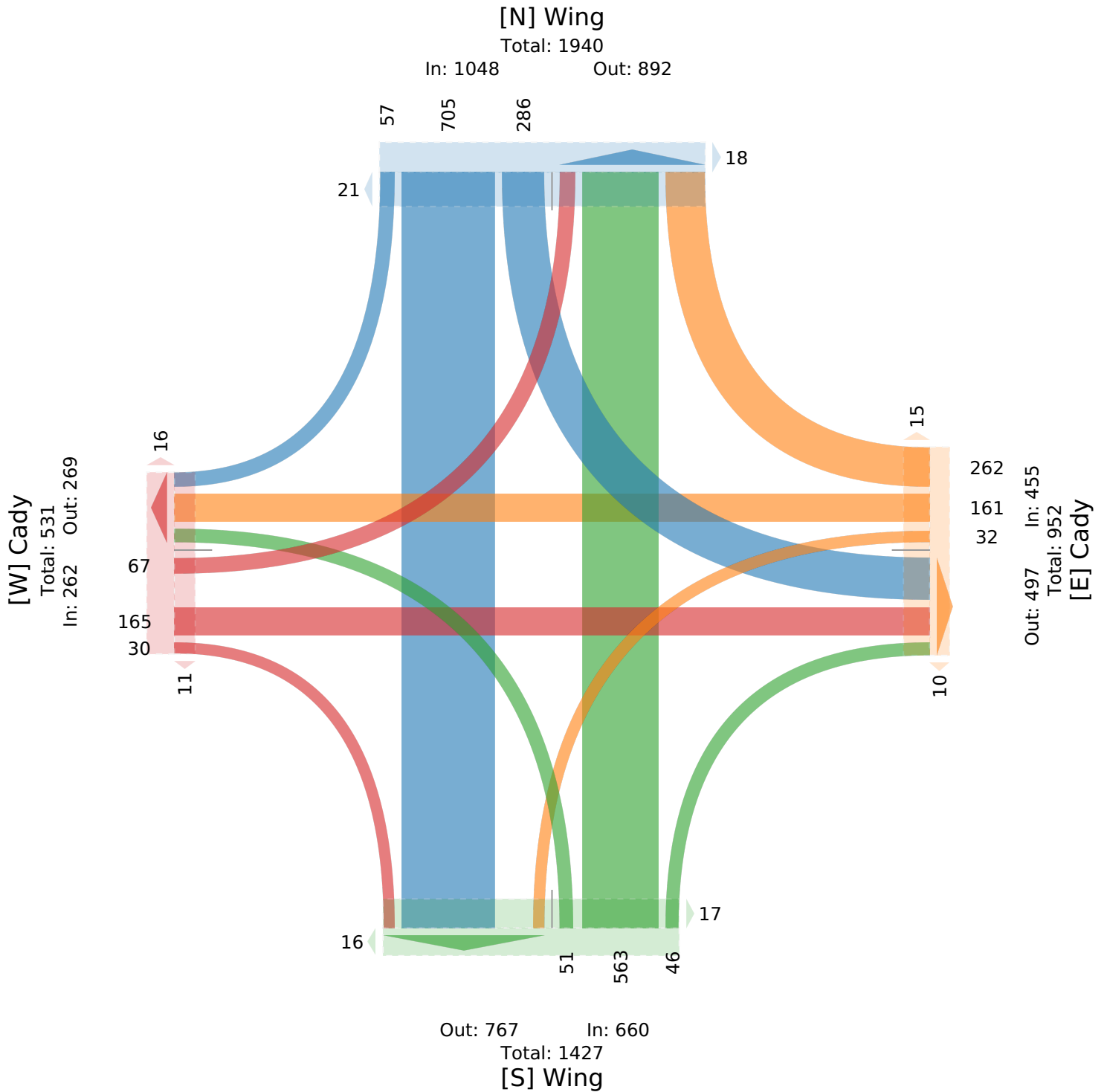
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886939, Location: 42.429981, -83.484583



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Cady & Wing - TMC

Tue Oct 19, 2021

AM Peak (7:45 AM - 8:45 AM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886939, Location: 42.429981, -83.484583



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Cady Eastbound						Cady Westbound						Wing Northbound						Wing Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 7:45AM	1	4	0	0	5	0	1	7	14	0	22	0	3	29	2	0	34	1	34	43	1	0	78	0	139
8:00AM	5	24	1	0	30	0	2	11	9	0	22	0	4	20	1	0	25	0	19	62	5	0	86	0	163
8:15AM	4	12	3	0	19	0	1	17	13	0	31	0	7	24	2	0	33	0	20	37	2	0	59	0	142
8:30AM	5	15	2	0	22	4	0	16	17	0	33	2	5	24	2	0	31	0	14	39	3	0	56	4	142
Total	15	55	6	0	76	4	4	51	53	0	108	2	19	97	7	0	123	1	87	181	11	0	279	4	586
% Approach	19.7%	72.4%	7.9%	0%	-	-	3.7%	47.2%	49.1%	0%	-	-	15.4%	78.9%	5.7%	0%	-	-	31.2%	64.9%	3.9%	0%	-	-	-
% Total	2.6%	9.4%	1.0%	0%	13.0%	-	0.7%	8.7%	9.0%	0%	18.4%	-	3.2%	16.6%	1.2%	0%	21.0%	-	14.8%	30.9%	1.9%	0%	47.6%	-	-
PHF	0.750	0.573	0.500	-	0.633	-	0.500	0.750	0.779	-	0.818	-	0.679	0.836	0.875	-	0.904	-	0.640	0.730	0.550	-	0.811	-	0.899
Lights	15	54	6	0	75	-	3	50	52	0	105	-	19	91	7	0	117	-	87	175	11	0	273	-	570
% Lights	100%	98.2%	100%	0%	98.7%	-	75.0%	98.0%	98.1%	0%	97.2%	-	100%	93.8%	100%	0%	95.1%	-	100%	96.7%	100%	0%	97.8%	-	97.3%
Single-Unit Trucks	0	0	0	0	0	-	0	1	0	0	1	-	0	4	0	0	4	-	0	0	0	0	0	-	5
% Single-Unit Trucks	0%	0%	0%	0%	0%	-	0%	2.0%	0%	0%	0.9%	-	0%	4.1%	0%	0%	3.3%	-	0%	0%	0%	0%	0%	-	0.9%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses	0	1	0	0	1	-	1	0	1	0	2	-	0	2	0	0	2	-	0	6	0	0	6	-	11
% Buses	0%	1.8%	0%	0%	1.3%	-	25.0%	0%	1.9%	0%	1.9%	-	0%	2.1%	0%	0%	1.6%	-	0%	3.3%	0%	0%	2.2%	-	1.9%
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	-	4	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	4	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	100%
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Cady & Wing - TMC

Tue Oct 19, 2021

AM Peak (7:45 AM - 8:45 AM)

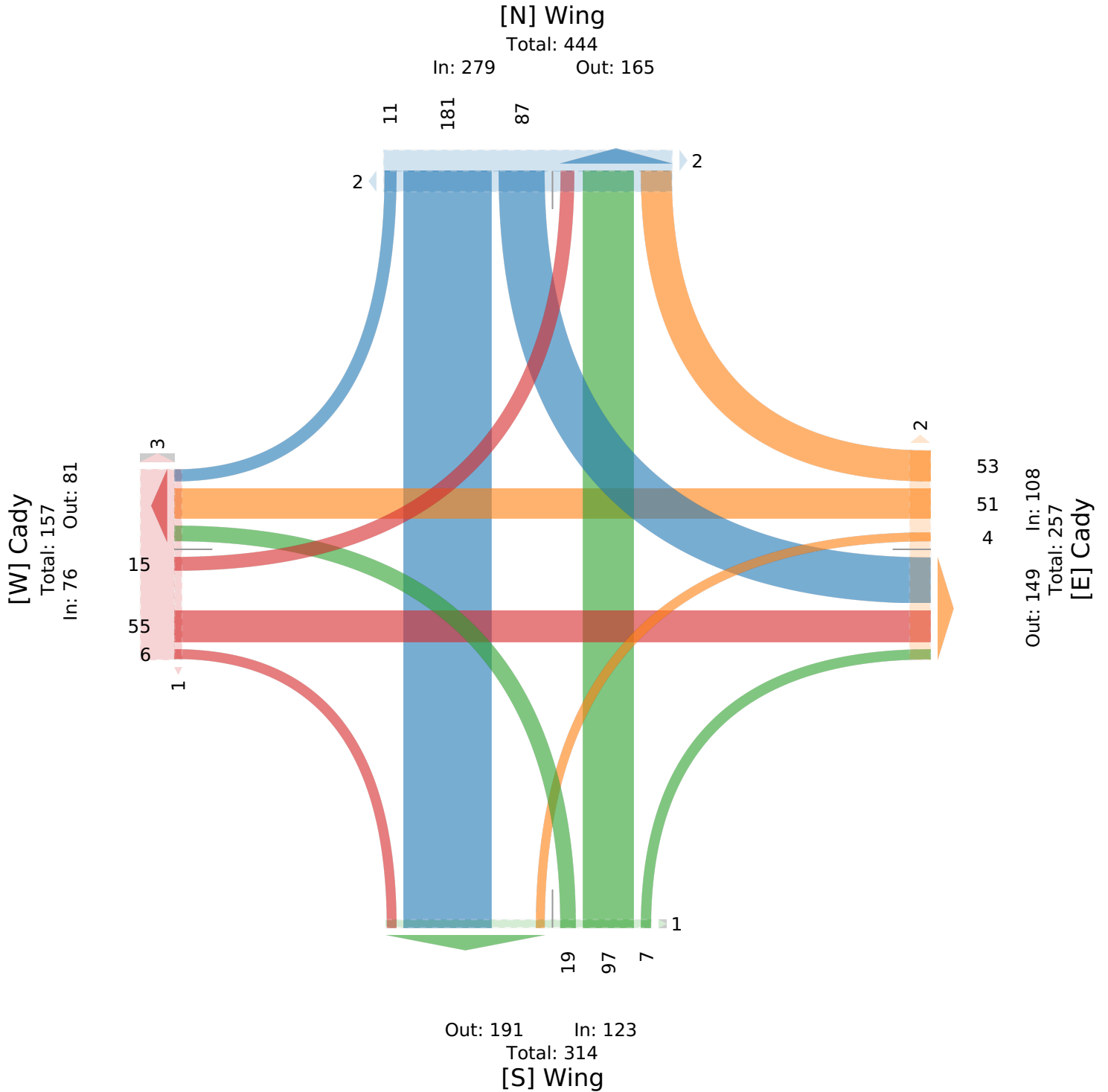
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886939, Location: 42.429981, -83.484583



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Cady & Wing - TMC

Tue Oct 19, 2021

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886939, Location: 42.429981, -83.484583



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Cady Eastbound						Cady Westbound						Wing Northbound						Wing Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 4:30PM	9	11	3	0	23	4	7	10	25	0	42	1	2	58	0	0	60	2	11	44	4	0	59	3	184
4:45PM	6	10	5	0	21	1	2	8	23	0	33	2	2	55	3	0	60	4	17	64	4	0	85	4	199
5:00PM	4	10	3	0	17	2	4	12	25	0	41	4	3	43	8	0	54	2	12	62	2	0	76	5	188
5:15PM	5	11	1	0	17	2	1	12	22	0	35	3	3	59	6	0	68	4	24	58	5	0	87	4	207
Total	24	42	12	0	78	9	14	42	95	0	151	10	10	215	17	0	242	12	64	228	15	0	307	16	778
% Approach	30.8%	53.8%	15.4%	0%	-	-	9.3%	27.8%	62.9%	0%	-	-	4.1%	88.8%	7.0%	0%	-	-	20.8%	74.3%	4.9%	0%	-	-	-
% Total	3.1%	5.4%	1.5%	0%	10.0%	-	1.8%	5.4%	12.2%	0%	19.4%	-	1.3%	27.6%	2.2%	0%	31.1%	-	8.2%	29.3%	1.9%	0%	39.5%	-	-
PHF	0.667	0.909	0.600	-	0.826	-	0.500	0.875	0.950	-	0.899	-	0.833	0.918	0.531	-	0.896	-	0.685	0.875	0.750	-	0.888	-	0.952
Lights	24	40	12	0	76	-	14	42	95	0	151	-	10	211	16	0	237	-	63	223	15	0	301	-	765
% Lights	100%	95.2%	100%	0%	97.4%	-	100%	100%	100%	0%	100%	-	100%	98.1%	94.1%	0%	97.9%	-	98.4%	97.8%	100%	0%	98.0%	-	98.3%
Single-Unit Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	1	-	0	1	0	0	1	-	2
% Single-Unit Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	5.9%	0%	0.4%	-	0%	0.4%	0%	0%	0.3%	-	0.3%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses	0	0	0	0	0	-	0	0	0	0	0	-	0	2	0	0	2	-	0	0	0	0	0	-	2
% Buses	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0.9%	0%	0%	0.8%	-	0%	0%	0%	0%	0%	-	0.3%
Bicycles on Road	0	2	0	0	2	-	0	0	0	0	0	-	0	2	0	0	2	-	1	4	0	0	5	-	9
% Bicycles on Road	0%	4.8%	0%	0%	2.6%	-	0%	0%	0%	0%	0%	-	0%	0.9%	0%	0%	0.8%	-	1.6%	1.8%	0%	0%	1.6%	-	1.2%
Pedestrians	-	-	-	-	-	9	-	-	-	-	-	9	-	-	-	-	-	12	-	-	-	-	-	16	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	90.0%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	10.0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Cady & Wing - TMC

Tue Oct 19, 2021

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

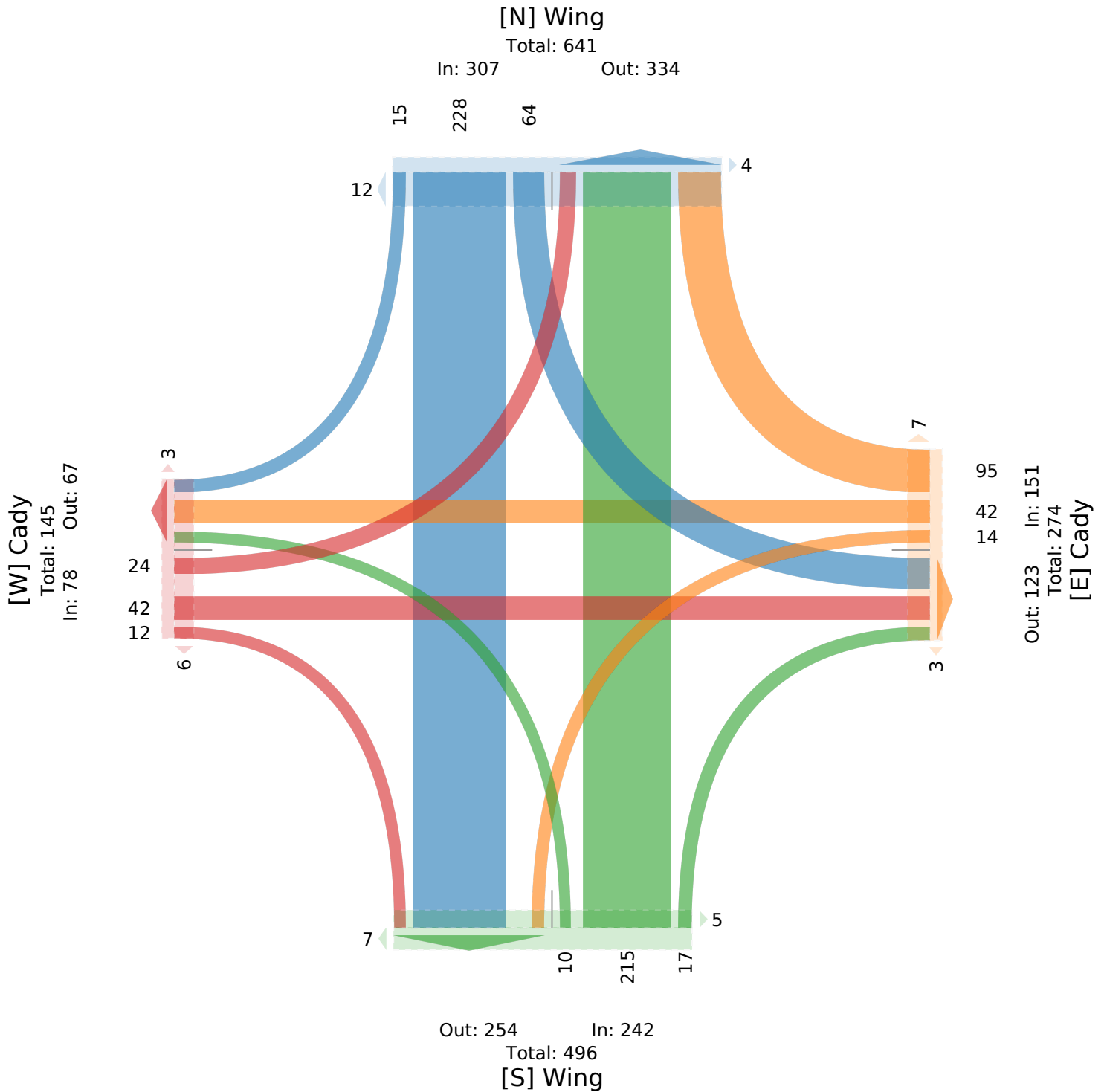
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886939, Location: 42.429981, -83.484583



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Cady Street & Center Street - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886927, Location: 42.430109, -83.483128



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Cady Eastbound						Cady Westbound						Center Northbound						Center Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 7:00AM	0	6	12	0	18	0	22	3	0	0	25	0	8	11	31	0	50	0	4	15	1	0	20	1	113
7:15AM	0	5	10	0	15	1	32	4	0	0	36	0	13	15	39	0	67	0	2	6	0	0	8	0	126
7:30AM	0	5	12	0	17	1	32	7	1	0	40	0	9	20	47	0	76	0	0	8	0	0	8	0	141
7:45AM	0	9	32	0	41	0	28	8	5	0	41	0	13	30	61	0	104	0	1	18	4	0	23	0	209
Hourly Total	0	25	66	0	91	2	114	22	6	0	142	0	43	76	178	0	297	0	7	47	5	0	59	1	589
8:00AM	0	23	18	0	41	0	45	16	2	0	63	0	6	26	57	0	89	0	5	32	1	0	38	0	231
8:15AM	0	16	16	0	32	3	31	17	2	0	50	2	11	28	69	0	108	0	8	23	2	0	33	0	223
8:30AM	1	16	14	0	31	0	23	17	1	0	41	0	20	15	74	0	109	0	8	12	1	0	21	2	202
8:45AM	0	10	8	0	18	1	38	20	5	0	63	2	12	22	63	0	97	0	6	15	1	0	22	1	200
Hourly Total	1	65	56	0	122	4	137	70	10	0	217	4	49	91	263	0	403	0	27	82	5	0	114	3	856
4:00PM	0	27	22	0	49	2	52	16	0	0	68	3	13	28	60	0	101	2	11	17	3	0	31	3	249
4:15PM	0	18	15	0	33	2	44	16	1	0	61	2	14	37	77	0	128	0	8	18	4	0	30	8	252
4:30PM	0	8	16	0	24	1	47	20	2	0	69	1	18	32	62	0	112	2	4	17	2	0	23	2	228
4:45PM	2	10	13	0	25	0	56	15	3	0	74	2	14	35	84	0	133	1	10	12	2	0	24	6	256
Hourly Total	2	63	66	0	131	5	199	67	6	0	272	8	59	132	283	0	474	5	33	64	11	0	108	19	985
5:00PM	1	23	14	0	38	5	62	19	2	0	83	0	15	25	59	0	99	0	11	28	1	0	40	6	260
5:15PM	2	21	24	0	47	4	48	11	1	0	60	2	20	44	69	0	133	0	6	22	6	0	34	7	274
5:30PM	2	15	16	0	33	6	64	17	1	0	82	0	13	29	79	0	121	2	12	22	4	0	38	7	274
5:45PM	0	11	17	0	28	6	51	11	1	0	63	1	10	33	85	0	128	2	16	29	5	0	50	5	269
Hourly Total	5	70	71	0	146	21	225	58	5	0	288	3	58	131	292	0	481	4	45	101	16	0	162	25	1077
Total	8	223	259	0	490	32	675	217	27	0	919	15	209	430	1016	0	1655	9	112	294	37	0	443	48	3507
% Approach	1.6%	45.5%	52.9%	0%	-	-	73.4%	23.6%	2.9%	0%	-	-	12.6%	26.0%	61.4%	0%	-	-	25.3%	66.4%	8.4%	0%	-	-	-
% Total	0.2%	6.4%	7.4%	0%	14.0%	-	19.2%	6.2%	0.8%	0%	26.2%	-	6.0%	12.3%	29.0%	0%	47.2%	-	3.2%	8.4%	1.1%	0%	12.6%	-	-
Lights	8	218	255	0	481	-	665	215	27	0	907	-	207	422	1011	0	1640	-	111	281	37	0	429	-	3457
% Lights	100%	97.8%	98.5%	0%	98.2%	-	98.5%	99.1%	100%	0%	98.7%	-	99.0%	98.1%	99.5%	0%	99.1%	-	99.1%	95.6%	100%	0%	96.8%	-	98.6%
Single-Unit Trucks	0	3	2	0	5	-	7	2	0	0	9	-	0	2	2	0	4	-	1	3	0	0	4	-	22
% Single-Unit Trucks	0%	1.3%	0.8%	0%	1.0%	-	1.0%	0.9%	0%	0%	1.0%	-	0%	0.5%	0.2%	0%	0.2%	-	0.9%	1.0%	0%	0%	0.9%	-	0.6%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	1	-	0	1	0	0	1	-	2
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0.1%	0%	0.1%	-	0%	0.3%	0%	0%	0.2%	-	0.1%
Buses	0	0	0	0	0	-	1	0	0	0	1	-	2	3	0	0	5	-	0	4	0	0	4	-	10
% Buses	0%	0%	0%	0%	0%	-	0.1%	0%	0%	0%	0.1%	-	1.0%	0.7%	0%	0%	0.3%	-	0%	1.4%	0%	0%	0.9%	-	0.3%
Bicycles on Road	0	2	2	0	4	-	2	0	0	0	2	-	0	3	2	0	5	-	0	5	0	0	5	-	16
% Bicycles on Road	0%	0.9%	0.8%	0%	0.8%	-	0.3%	0%	0%	0%	0.2%	-	0%	0.7%	0.2%	0%	0.3%	-	0%	1.7%	0%	0%	1.1%	-	0.5%
Pedestrians	-	-	-	-	-	30	-	-	-	-	-	13	-	-	-	-	-	8	-	-	-	-	-	48	
% Pedestrians	-	-	-	-	-	93.8%	-	-	-	-	-	86.7%	-	-	-	-	-	88.9%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	6.3%	-	-	-	-	-	13.3%	-	-	-	-	-	11.1%	-	-	-	-	-	0%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Cady Street & Center Street - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

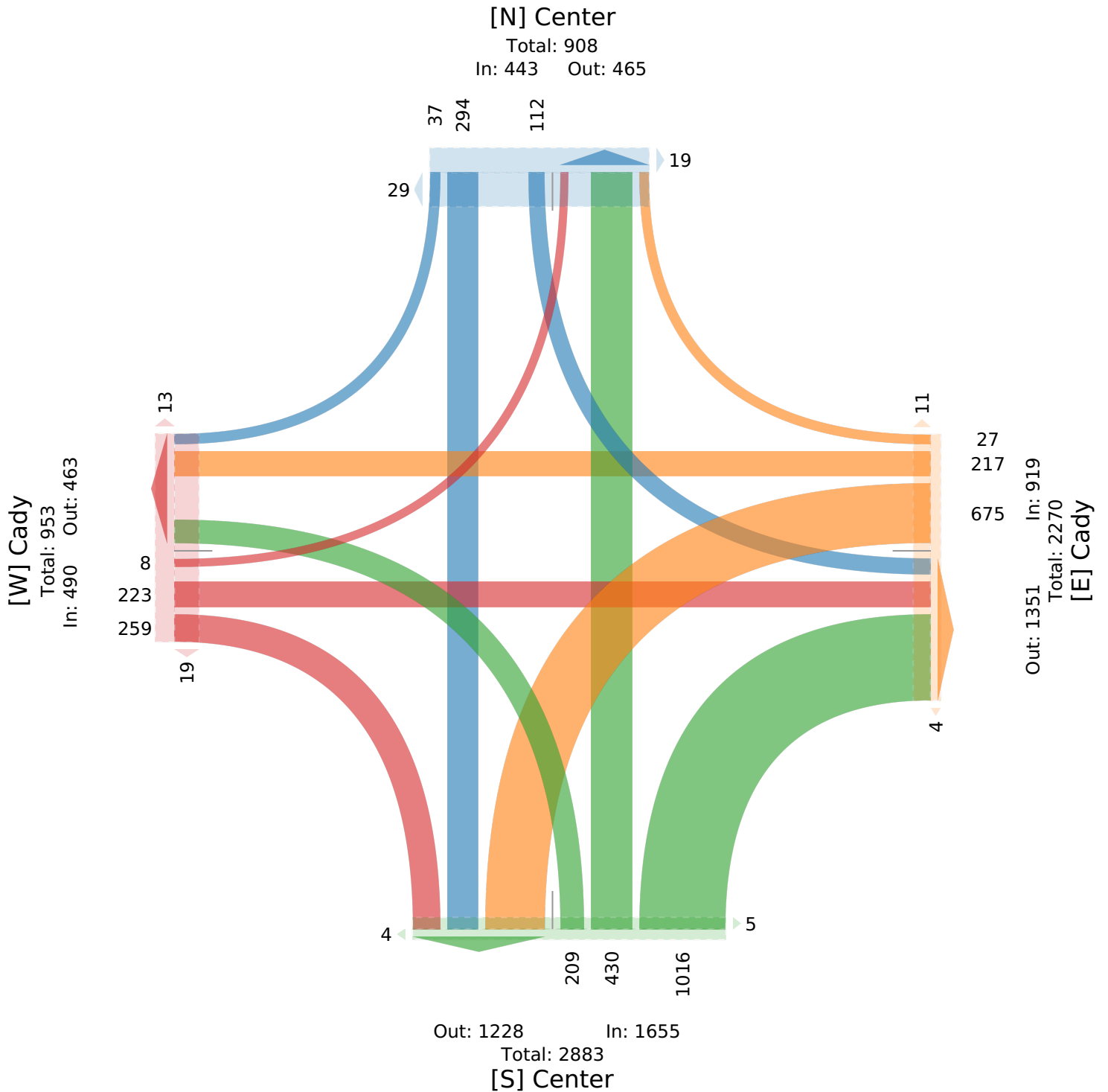
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886927, Location: 42.430109, -83.483128



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Cady Street & Center Street - TMC

Tue Oct 19, 2021

AM Peak (7:45 AM - 8:45 AM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886927, Location: 42.430109, -83.483128



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Cady Eastbound						Cady Westbound						Center Northbound						Center Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 7:45AM	0	9	32	0	41	0	28	8	5	0	41	0	13	30	61	0	104	0	1	18	4	0	23	0	209
8:00AM	0	23	18	0	41	0	45	16	2	0	63	0	6	26	57	0	89	0	5	32	1	0	38	0	231
8:15AM	0	16	16	0	32	3	31	17	2	0	50	2	11	28	69	0	108	0	8	23	2	0	33	0	223
8:30AM	1	16	14	0	31	0	23	17	1	0	41	0	20	15	74	0	109	0	8	12	1	0	21	2	202
Total	1	64	80	0	145	3	127	58	10	0	195	2	50	99	261	0	410	0	22	85	8	0	115	2	865
% Approach	0.7%	44.1%	55.2%	0%	-	-	65.1%	29.7%	5.1%	0%	-	-	12.2%	24.1%	63.7%	0%	-	-	19.1%	73.9%	7.0%	0%	-	-	-
% Total	0.1%	7.4%	9.2%	0%	16.8%	-	14.7%	6.7%	1.2%	0%	22.5%	-	5.8%	11.4%	30.2%	0%	47.4%	-	2.5%	9.8%	0.9%	0%	13.3%	-	-
PHF	0.250	0.696	0.625	-	0.884	-	0.706	0.853	0.500	-	0.774	-	0.625	0.825	0.882	-	0.940	-	0.688	0.656	0.500	-	0.750	-	0.935
Lights	1	64	80	0	145	-	123	57	10	0	190	-	48	97	260	0	405	-	22	81	8	0	111	-	851
% Lights	100%	100%	100%	0%	100%	-	96.9%	98.3%	100%	0%	97.4%	-	96.0%	98.0%	99.6%	0%	98.8%	-	100%	95.3%	100%	0%	96.5%	-	98.4%
Single-Unit Trucks	0	0	0	0	0	-	3	1	0	0	4	-	0	0	1	0	1	-	0	1	0	0	1	-	6
% Single-Unit Trucks	0%	0%	0%	0%	0%	-	2.4%	1.7%	0%	0%	2.1%	-	0%	0%	0.4%	0%	0.2%	-	0%	1.2%	0%	0%	0.9%	-	0.7%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses	0	0	0	0	0	-	1	0	0	0	1	-	2	2	0	0	4	-	0	2	0	0	2	-	7
% Buses	0%	0%	0%	0%	0%	-	0.8%	0%	0%	0%	0.5%	-	4.0%	2.0%	0%	0%	1.0%	-	0%	2.4%	0%	0%	1.7%	-	0.8%
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	1	-	1
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	1.2%	0%	0%	0.9%	-	0.1%
Pedestrians	-	-	-	-	-	3	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	2	-
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	100%
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Cady Street & Center Street - TMC

Tue Oct 19, 2021

AM Peak (7:45 AM - 8:45 AM)

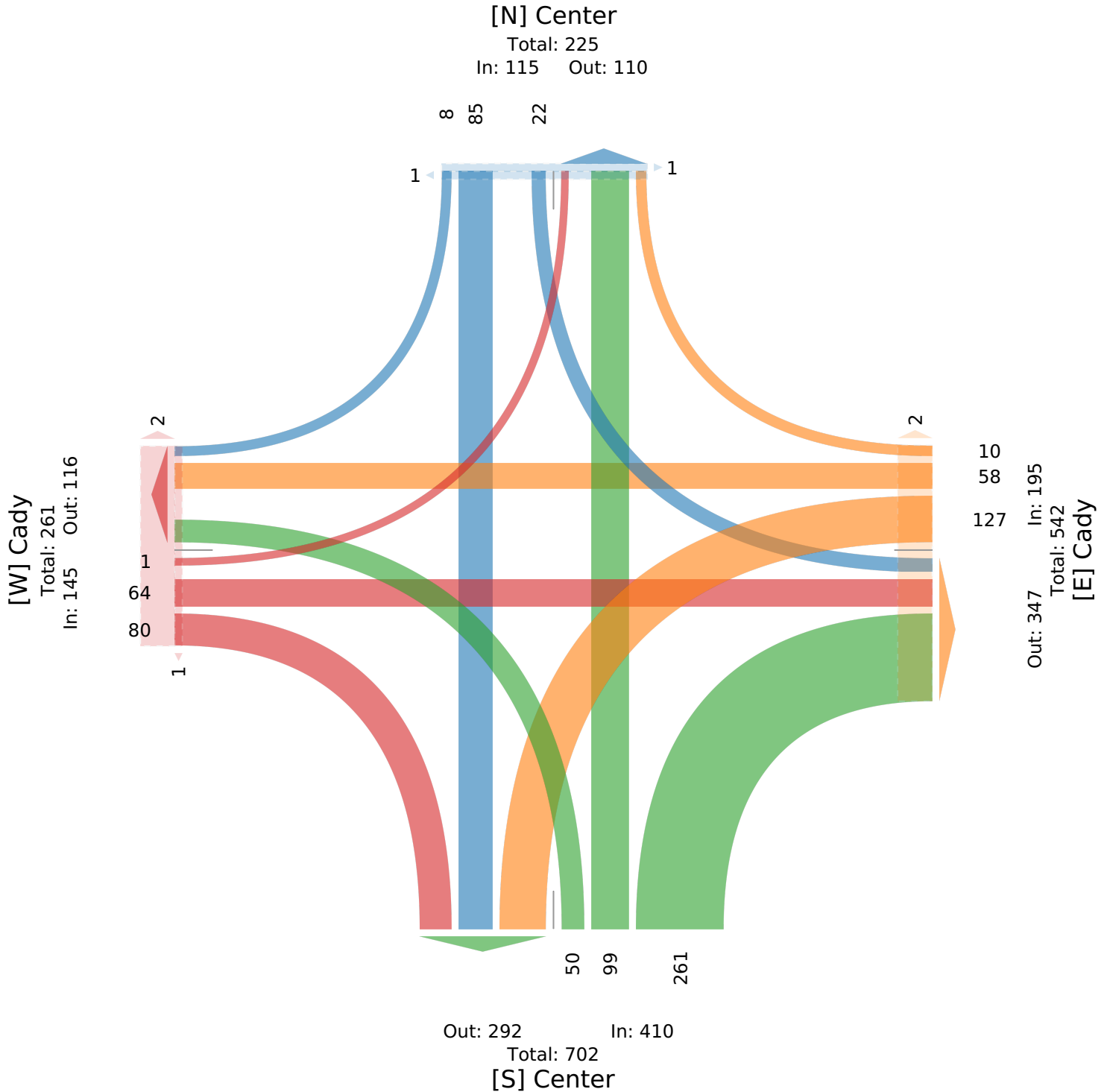
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886927, Location: 42.430109, -83.483128



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Cady Street & Center Street - TMC

Tue Oct 19, 2021

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886927, Location: 42.430109, -83.483128

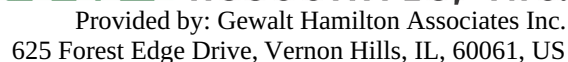


Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Cady Eastbound						Cady Westbound						Center Northbound						Center Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 5:00PM	1	23	14	0	38	5	62	19	2	0	83	0	15	25	59	0	99	0	11	28	1	0	40	6	260
5:15PM	2	21	24	0	47	4	48	11	1	0	60	2	20	44	69	0	133	0	6	22	6	0	34	7	274
5:30PM	2	15	16	0	33	6	64	17	1	0	82	0	13	29	79	0	121	2	12	22	4	0	38	7	274
5:45PM	0	11	17	0	28	6	51	11	1	0	63	1	10	33	85	0	128	2	16	29	5	0	50	5	269
Total	5	70	71	0	146	21	225	58	5	0	288	3	58	131	292	0	481	4	45	101	16	0	162	25	1077
% Approach	3.4%	47.9%	48.6%	0%	-	-	78.1%	20.1%	1.7%	0%	-	-	12.1%	27.2%	60.7%	0%	-	-	27.8%	62.3%	9.9%	0%	-	-	-
% Total	0.5%	6.5%	6.6%	0%	13.6%	-	20.9%	5.4%	0.5%	0%	26.7%	-	5.4%	12.2%	27.1%	0%	44.7%	-	4.2%	9.4%	1.5%	0%	15.0%	-	-
PHF	0.625	0.784	0.784	-	0.794	-	0.875	0.763	0.625	-	0.875	-	0.725	0.744	0.856	-	0.902	-	0.703	0.853	0.667	-	0.800	-	0.980
Lights	5	68	69	0	142	-	223	58	5	0	286	-	58	129	290	0	477	-	45	97	16	0	158	-	1063
% Lights	100%	97.1%	97.2%	0%	97.3%	-	99.1%	100%	100%	0%	99.3%	-	100%	98.5%	99.3%	0%	99.2%	-	100%	96.0%	100%	0%	97.5%	-	98.7%
Single-Unit Trucks	0	1	0	0	1	-	1	0	0	0	1	-	0	2	1	0	3	-	0	1	0	0	1	-	6
% Single-Unit Trucks	0%	1.4%	0%	0%	0.7%	-	0.4%	0%	0%	0%	0.3%	-	0%	1.5%	0.3%	0%	0.6%	-	0%	1.0%	0%	0%	0.6%	-	0.6%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	1	-	1
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	1.0%	0%	0%	0.6%	-	0.1%
Buses	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Bicycles on Road	0	1	2	0	3	-	1	0	0	0	1	-	0	0	1	0	1	-	0	2	0	0	2	-	7
% Bicycles on Road	0%	1.4%	2.8%	0%	2.1%	-	0.4%	0%	0%	0%	0.3%	-	0%	0%	0.3%	0%	0.2%	-	0%	2.0%	0%	0%	1.2%	-	0.6%
Pedestrians	-	-	-	-	-	20	-	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	25	
% Pedestrians	-	-	-	-	-	95.2%	-	-	-	-	-	33.3%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	4.8%	-	-	-	-	-	66.7%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

ID: 886927, Location: 42.430109, -83.483128



Hutton Street & Cady Street - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886928, Location: 42.430207, -83.480946



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Cady Eastbound					Cady Westbound					Hutton Southbound					
Time	L	T	U	App	Ped*	T	R	U	App	Ped*	L	R	U	App	Ped*	Int
2021-10-19 7:00AM	22	18	0	40	0	20	2	0	22	0	0	6	0	6	0	68
7:15AM	33	14	0	47	0	21	5	0	26	0	0	17	0	17	0	90
7:30AM	30	23	0	53	0	26	2	0	28	0	0	13	0	13	0	94
7:45AM	37	28	0	65	0	26	4	0	30	0	2	19	0	21	0	116
Hourly Total	122	83	0	205	0	93	13	0	106	0	2	55	0	57	0	368
8:00AM	35	43	0	78	0	41	1	0	42	0	1	22	0	23	3	143
8:15AM	50	39	0	89	0	42	4	0	46	2	0	11	0	11	0	146
8:30AM	42	51	0	93	0	40	6	0	46	3	2	14	0	16	2	155
8:45AM	36	35	0	71	0	61	10	0	71	2	2	14	0	16	2	158
Hourly Total	163	168	0	331	0	184	21	0	205	7	5	61	0	66	7	602
4:00PM	39	63	0	102	0	48	8	0	56	0	3	14	0	17	0	175
4:15PM	41	55	0	96	0	38	6	0	44	0	3	19	0	22	3	162
4:30PM	35	47	0	82	0	43	6	0	49	0	3	21	0	24	2	155
4:45PM	44	50	0	94	0	47	8	0	55	0	4	30	0	34	1	183
Hourly Total	159	215	0	374	0	176	28	0	204	0	13	84	0	97	6	675
5:00PM	49	57	0	106	0	52	6	0	58	0	1	17	0	18	4	182
5:15PM	39	59	0	98	0	56	4	0	60	0	6	14	0	20	6	178
5:30PM	51	50	0	101	0	52	5	0	57	0	7	33	0	40	3	198
5:45PM	51	59	0	110	0	48	7	0	55	0	5	18	0	23	0	188
Hourly Total	190	225	0	415	0	208	22	0	230	0	19	82	0	101	13	746
Total	634	691	0	1325	0	661	84	0	745	7	39	282	0	321	26	2391
% Approach	47.8%	52.2%	0%	-	-	88.7%	11.3%	0%	-	-	12.1%	87.9%	0%	-	-	-
% Total	26.5%	28.9%	0%	55.4%	-	27.6%	3.5%	0%	31.2%	-	1.6%	11.8%	0%	13.4%	-	-
Lights	627	686	0	1313	-	654	83	0	737	-	37	276	0	313	-	2363
% Lights	98.9%	99.3%	0%	99.1%	-	98.9%	98.8%	0%	98.9%	-	94.9%	97.9%	0%	97.5%	-	98.8%
Single-Unit Trucks	0	4	0	4	-	5	0	0	5	-	1	3	0	4	-	13
% Single-Unit Trucks	0%	0.6%	0%	0.3%	-	0.8%	0%	0%	0.7%	-	2.6%	1.1%	0%	1.2%	-	0.5%
Articulated Trucks	2	0	0	2	-	0	0	0	0	-	0	0	0	0	-	2
% Articulated Trucks	0.3%	0%	0%	0.2%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0.1%
Buses	1	0	0	1	-	0	0	0	0	-	0	1	0	1	-	2
% Buses	0.2%	0%	0%	0.1%	-	0%	0%	0%	0%	-	0%	0.4%	0%	0.3%	-	0.1%
Bicycles on Road	4	1	0	5	-	2	1	0	3	-	1	2	0	3	-	11
% Bicycles on Road	0.6%	0.1%	0%	0.4%	-	0.3%	1.2%	0%	0.4%	-	2.6%	0.7%	0%	0.9%	-	0.5%
Pedestrians	-	-	-	-	0	-	-	-	-	7	-	-	-	-	-	25
% Pedestrians	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	96.2%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	1
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	3.8%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Hutton Street & Cady Street - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

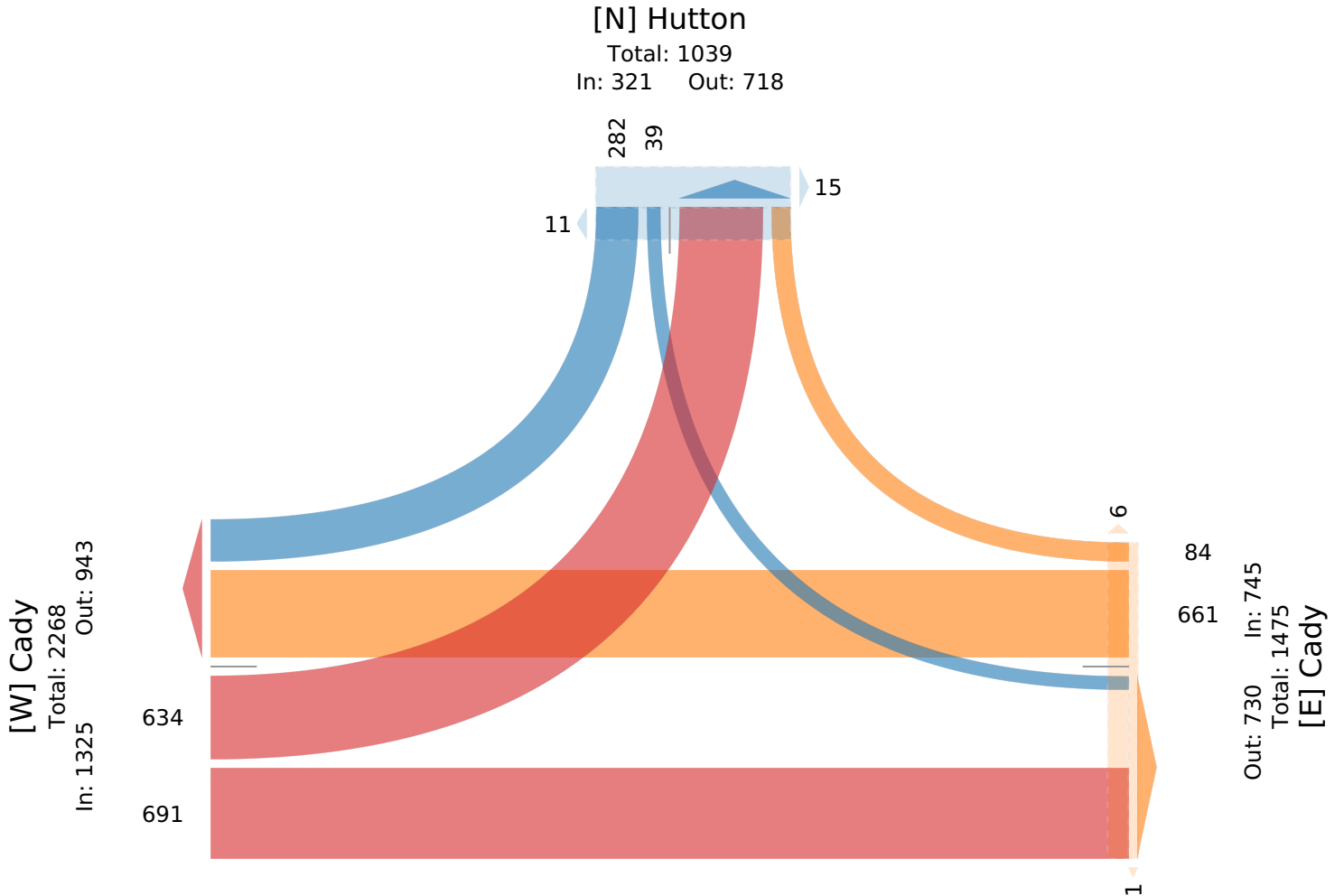
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886928, Location: 42.430207, -83.480946



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Hutton Street & Cady Street - TMC

Tue Oct 19, 2021

AM Peak (8 AM - 9 AM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886928, Location: 42.430207, -83.480946



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Cady Eastbound					Cady Westbound					Hutton Southbound					
Time	L	T	U	App	Ped*	T	R	U	App	Ped*	L	R	U	App	Ped*	Int
2021-10-19 8:00AM	35	43	0	78	0	41	1	0	42	0	1	22	0	23	3	143
8:15AM	50	39	0	89	0	42	4	0	46	2	0	11	0	11	0	146
8:30AM	42	51	0	93	0	40	6	0	46	3	2	14	0	16	2	155
8:45AM	36	35	0	71	0	61	10	0	71	2	2	14	0	16	2	158
Total	163	168	0	331	0	184	21	0	205	7	5	61	0	66	7	602
% Approach	49.2%	50.8%	0%	-	-	89.8%	10.2%	0%	-	-	7.6%	92.4%	0%	-	-	-
% Total	27.1%	27.9%	0%	55.0%	-	30.6%	3.5%	0%	34.1%	-	0.8%	10.1%	0%	11.0%	-	-
PHF	0.815	0.824	-	0.890	-	0.754	0.525	-	0.722	-	0.625	0.693	-	0.717	-	0.953
Lights	162	167	0	329	-	183	21	0	204	-	5	57	0	62	-	595
% Lights	99.4%	99.4%	0%	99.4%	-	99.5%	100%	0%	99.5%	-	100%	93.4%	0%	93.9%	-	98.8%
Single-Unit Trucks	0	1	0	1	-	1	0	0	1	-	0	3	0	3	-	5
% Single-Unit Trucks	0%	0.6%	0%	0.3%	-	0.5%	0%	0%	0.5%	-	0%	4.9%	0%	4.5%	-	0.8%
Articulated Trucks	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Buses	1	0	0	1	-	0	0	0	0	-	0	1	0	1	-	2
% Buses	0.6%	0%	0%	0.3%	-	0%	0%	0%	0%	-	0%	1.6%	0%	1.5%	-	0.3%
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Bicycles on Road	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	7	-	-	-	-	7	-
% Pedestrians	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	0%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Hutton Street & Cady Street - TMC

Tue Oct 19, 2021

AM Peak (8 AM - 9 AM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886928, Location: 42.430207, -83.480946



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

[N] Hutton

Total: 250

In: 66 Out: 184

61 5

3

4

6

21

184

In: 205

Out: 173

Total: 378

[E] Cady

[W] Cady

Total: 576

In: 331

Out: 245

163

168

1

Hutton Street & Cady Street - TMC

Tue Oct 19, 2021

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886928, Location: 42.430207, -83.480946



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Cady Eastbound					Cady Westbound					Hutton Southbound					
Time	L	T	U	App	Ped*	T	R	U	App	Ped*	L	R	U	App	Ped*	Int
2021-10-19 5:00PM	49	57	0	106	0	52	6	0	58	0	1	17	0	18	4	182
5:15PM	39	59	0	98	0	56	4	0	60	0	6	14	0	20	6	178
5:30PM	51	50	0	101	0	52	5	0	57	0	7	33	0	40	3	198
5:45PM	51	59	0	110	0	48	7	0	55	0	5	18	0	23	0	188
Total	190	225	0	415	0	208	22	0	230	0	19	82	0	101	13	746
% Approach	45.8%	54.2%	0%	-	-	90.4%	9.6%	0%	-	-	18.8%	81.2%	0%	-	-	-
% Total	25.5%	30.2%	0%	55.6%	-	27.9%	2.9%	0%	30.8%	-	2.5%	11.0%	0%	13.5%	-	-
PHF	0.922	0.953	-	0.939	-	0.936	0.786	-	0.966	-	0.679	0.614	-	0.625	-	0.940
Lights	187	224	0	411	-	205	22	0	227	-	18	81	0	99	-	737
% Lights	98.4%	99.6%	0%	99.0%	-	98.6%	100%	0%	98.7%	-	94.7%	98.8%	0%	98.0%	-	98.8%
Single-Unit Trucks	0	1	0	1	-	1	0	0	1	-	1	0	0	1	-	3
% Single-Unit Trucks	0%	0.4%	0%	0.2%	-	0.5%	0%	0%	0.4%	-	5.3%	0%	0%	1.0%	-	0.4%
Articulated Trucks	1	0	0	1	-	0	0	0	0	-	0	0	0	0	-	1
% Articulated Trucks	0.5%	0%	0%	0.2%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0.1%
Buses	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Bicycles on Road	2	0	0	2	-	2	0	0	2	-	0	1	0	1	-	5
% Bicycles on Road	1.1%	0%	0%	0.5%	-	1.0%	0%	0%	0.9%	-	0%	1.2%	0%	1.0%	-	0.7%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	13	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Hutton Street & Cady Street - TMC

Tue Oct 19, 2021

PM Peak (5 PM - 6 PM) - Overall Peak Hour

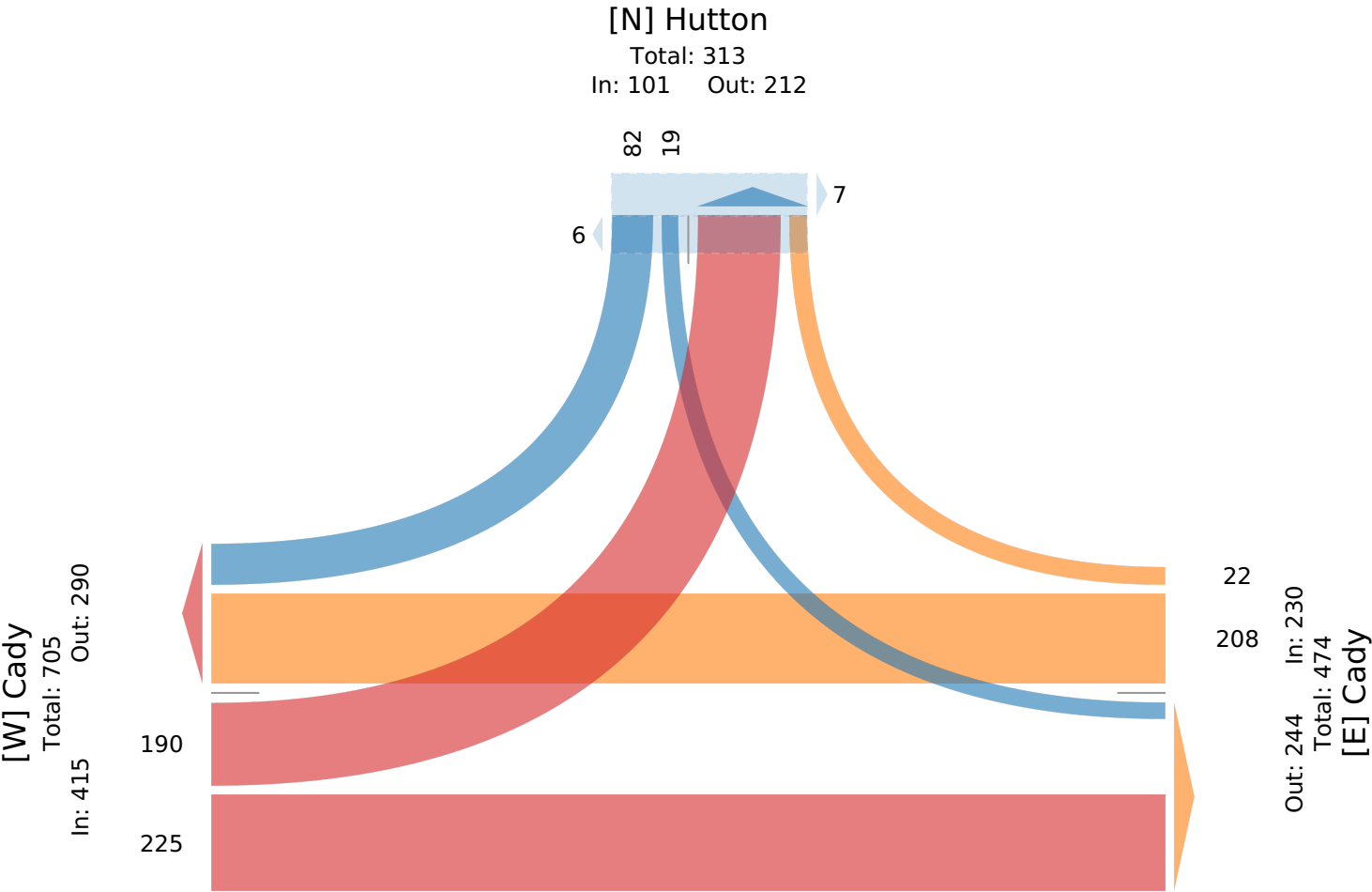
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886928, Location: 42.430207, -83.480946



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Cady & Church - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886936, Location: 42.430245, -83.480269



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Cady Eastbound					Cady Westbound					Church Southbound					
Time	L	T	U	App	Ped*	T	R	U	App	Ped*	L	R	U	App	Ped*	Int
2021-10-19 7:00AM	0	18	0	18	0	12	0	0	12	0	11	10	0	21	1	51
7:15AM	0	14	0	14	0	16	0	0	16	0	17	9	0	26	0	56
7:30AM	0	23	0	23	0	17	0	0	17	0	11	11	0	22	0	62
7:45AM	0	30	0	30	0	21	0	0	21	0	16	11	0	27	0	78
Hourly Total	0	85	0	85	0	66	0	0	66	0	55	41	0	96	1	247
8:00AM	0	43	0	43	1	30	0	0	30	0	11	12	0	23	0	96
8:15AM	0	37	0	37	0	22	0	0	22	0	15	24	0	39	0	98
8:30AM	0	53	0	53	0	36	0	0	36	0	11	11	0	22	1	111
8:45AM	0	38	0	38	1	56	0	0	56	0	11	24	0	35	2	129
Hourly Total	0	171	0	171	2	144	0	0	144	0	48	71	0	119	3	434
4:00PM	0	65	0	65	2	43	0	0	43	0	11	9	0	20	0	128
4:15PM	0	58	0	58	0	40	0	0	40	0	6	6	0	12	1	110
4:30PM	0	50	0	50	0	41	0	0	41	0	10	8	0	18	3	109
4:45PM	0	57	0	57	0	47	0	0	47	0	5	8	0	13	1	117
Hourly Total	0	230	0	230	2	171	0	0	171	0	32	31	0	63	5	464
5:00PM	0	59	0	59	1	48	0	0	48	0	7	8	0	15	5	122
5:15PM	0	66	0	66	0	59	0	0	59	0	8	1	0	9	5	134
5:30PM	0	57	0	57	0	55	0	0	55	0	5	4	0	9	3	121
5:45PM	0	65	0	65	0	49	0	0	49	0	6	4	0	10	1	124
Hourly Total	0	247	0	247	1	211	0	0	211	0	26	17	0	43	14	501
Total	0	733	0	733	5	592	0	0	592	0	161	160	0	321	23	1646
% Approach	0%	100%	0%	-	-	100%	0%	0%	-	-	50.2%	49.8%	0%	-	-	-
% Total	0%	44.5%	0%	44.5%	-	36.0%	0%	0%	36.0%	-	9.8%	9.7%	0%	19.5%	-	-
Lights	0	726	0	726	-	584	0	0	584	-	160	160	0	320	-	1630
% Lights	0%	99.0%	0%	99.0%	-	98.6%	0%	0%	98.6%	-	99.4%	100%	0%	99.7%	-	99.0%
Single-Unit Trucks	0	4	0	4	-	5	0	0	5	-	0	0	0	0	-	9
% Single-Unit Trucks	0%	0.5%	0%	0.5%	-	0.8%	0%	0%	0.8%	-	0%	0%	0%	0%	-	0.5%
Articulated Trucks	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Buses	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Bicycles on Road	0	3	0	3	-	3	0	0	3	-	1	0	0	1	-	7
% Bicycles on Road	0%	0.4%	0%	0.4%	-	0.5%	0%	0%	0.5%	-	0.6%	0%	0%	0.3%	-	0.4%
Pedestrians	-	-	-	-	5	-	-	-	-	0	-	-	-	-	21	-
% Pedestrians	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	91.3%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	2	-
% Bicycles on Crosswalk	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	8.7%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Cady & Church - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

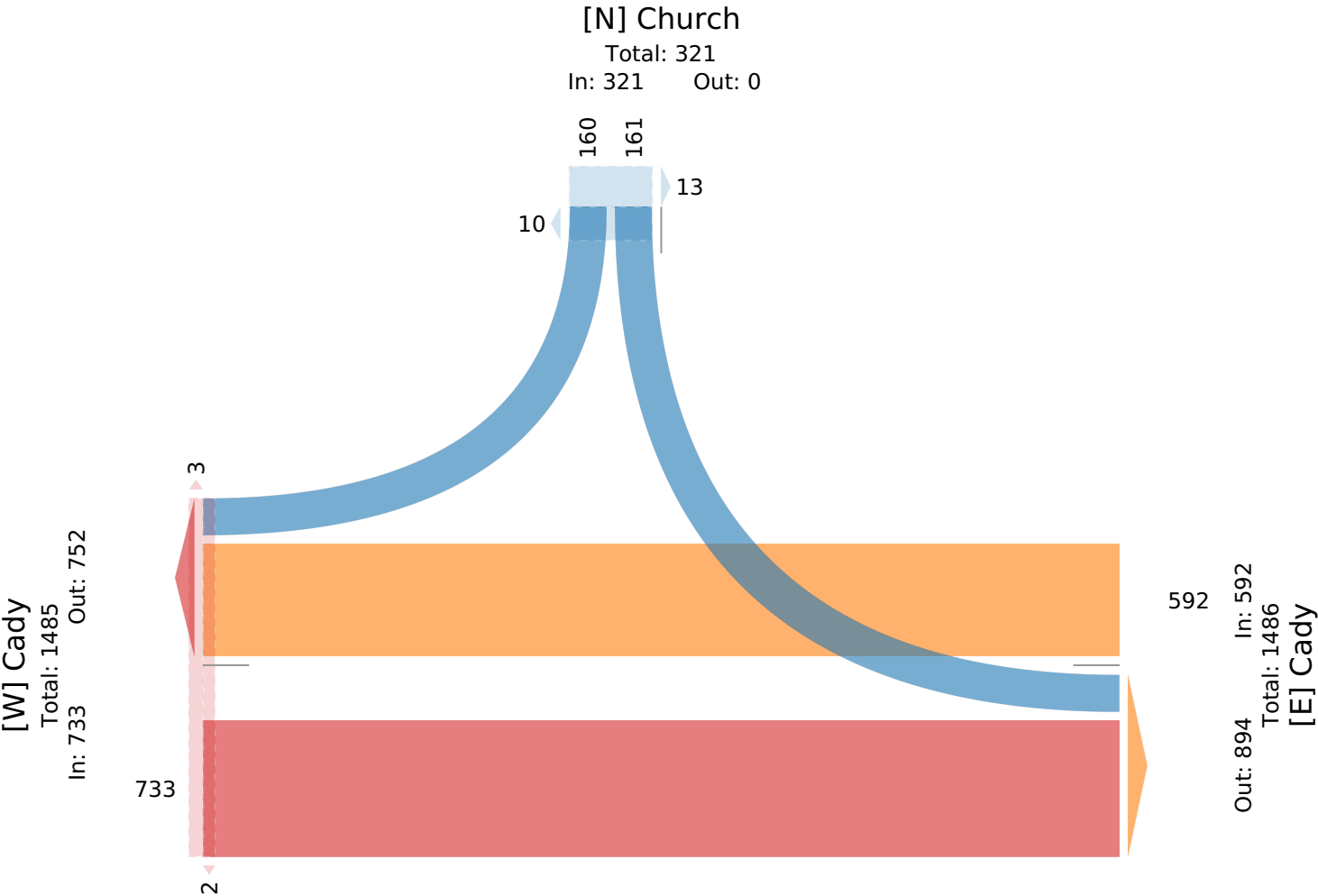
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886936, Location: 42.430245, -83.480269



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Cady & Church - TMC

Tue Oct 19, 2021

AM Peak (8 AM - 9 AM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886936, Location: 42.430245, -83.480269



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Cady Eastbound					Cady Westbound					Church Southbound					
Time	L	T	U	App	Ped*	T	R	U	App	Ped*	L	R	U	App	Ped*	Int
2021-10-19 8:00AM	0	43	0	43	1	30	0	0	30	0	11	12	0	23	0	96
8:15AM	0	37	0	37	0	22	0	0	22	0	15	24	0	39	0	98
8:30AM	0	53	0	53	0	36	0	0	36	0	11	11	0	22	1	111
8:45AM	0	38	0	38	1	56	0	0	56	0	11	24	0	35	2	129
Total	0	171	0	171	2	144	0	0	144	0	48	71	0	119	3	434
% Approach	0%	100%	0%	-	-	100%	0%	0%	-	-	40.3%	59.7%	0%	-	-	-
% Total	0%	39.4%	0%	39.4%	-	33.2%	0%	0%	33.2%	-	11.1%	16.4%	0%	27.4%	-	-
PHF	-	0.807	-	0.807	-	0.643	-	-	0.643	-	0.800	0.740	-	0.763	-	0.841
Lights	0	170	0	170	-	143	0	0	143	-	48	71	0	119	-	432
% Lights	0%	99.4%	0%	99.4%	-	99.3%	0%	0%	99.3%	-	100%	100%	0%	100%	-	99.5%
Single-Unit Trucks	0	1	0	1	-	1	0	0	1	-	0	0	0	0	-	2
% Single-Unit Trucks	0%	0.6%	0%	0.6%	-	0.7%	0%	0%	0.7%	-	0%	0%	0%	0%	-	0.5%
Articulated Trucks	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Buses	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Bicycles on Road	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	2	-	-	-	-	0	-	-	-	-	3	-
% Pedestrians	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	0%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Cady & Church - TMC

Tue Oct 19, 2021

AM Peak (8 AM - 9 AM)

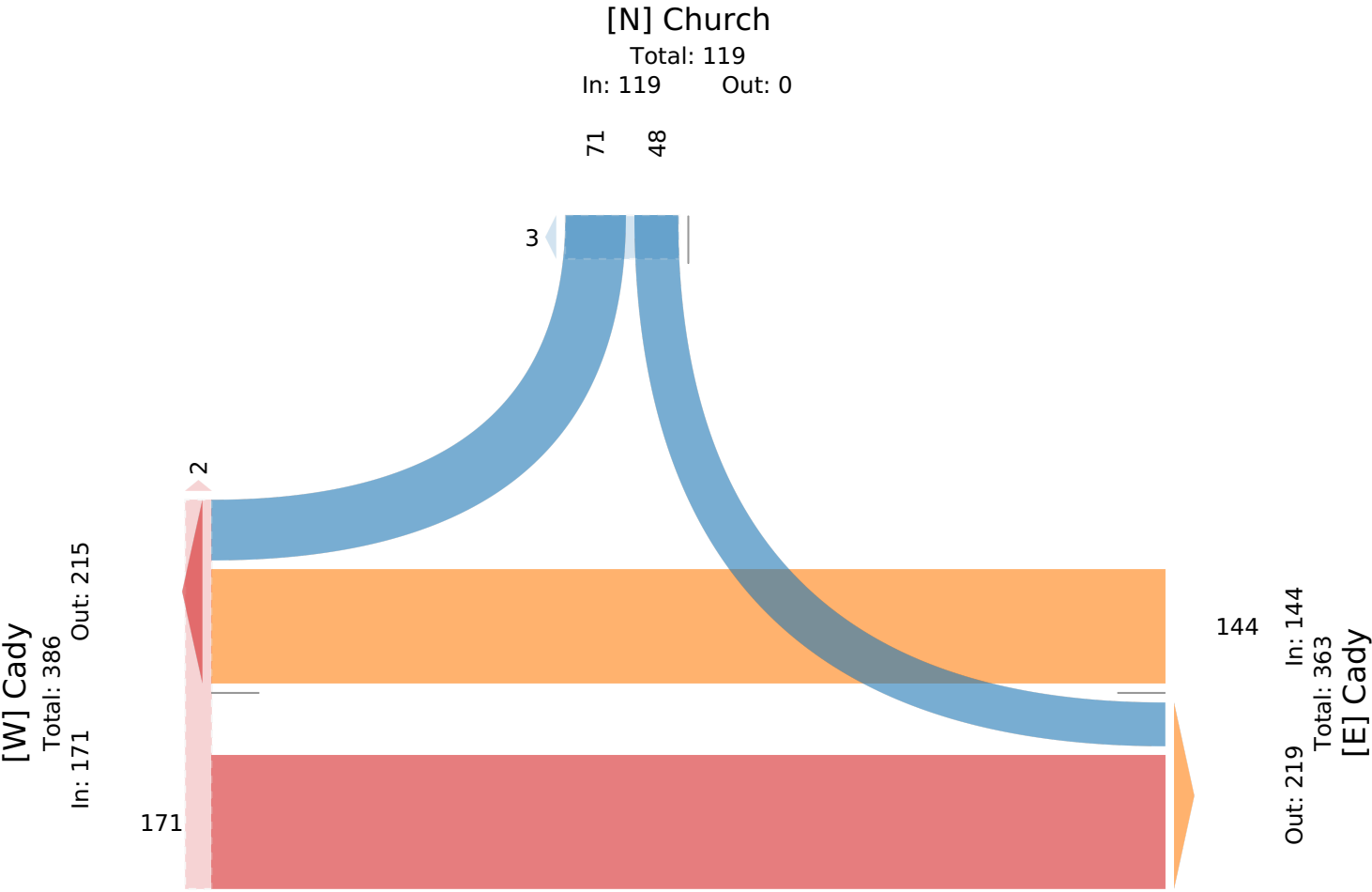
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886936, Location: 42.430245, -83.480269



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Cady & Church - TMC

Tue Oct 19, 2021

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886936, Location: 42.430245, -83.480269



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Cady Eastbound					Cady Westbound					Church Southbound					
Time	L	T	U	App	Ped*	T	R	U	App	Ped*	L	R	U	App	Ped*	Int
2021-10-19 5:00PM	0	59	0	59	1	48	0	0	48	0	7	8	0	15	5	122
5:15PM	0	66	0	66	0	59	0	0	59	0	8	1	0	9	5	134
5:30PM	0	57	0	57	0	55	0	0	55	0	5	4	0	9	3	121
5:45PM	0	65	0	65	0	49	0	0	49	0	6	4	0	10	1	124
Total	0	247	0	247	1	211	0	0	211	0	26	17	0	43	14	501
% Approach	0%	100%	0%	-	-	100%	0%	0%	-	-	60.5%	39.5%	0%	-	-	-
% Total	0%	49.3%	0%	49.3%	-	42.1%	0%	0%	42.1%	-	5.2%	3.4%	0%	8.6%	-	-
PHF	-	0.946	-	0.946	-	0.901	-	-	0.901	-	0.813	0.531	-	0.717	-	0.943
Lights	0	245	0	245	-	208	0	0	208	-	26	17	0	43	-	496
% Lights	0%	99.2%	0%	99.2%	-	98.6%	0%	0%	98.6%	-	100%	100%	0%	100%	-	99.0%
Single-Unit Trucks	0	1	0	1	-	1	0	0	1	-	0	0	0	0	-	2
% Single-Unit Trucks	0%	0.4%	0%	0.4%	-	0.5%	0%	0%	0.5%	-	0%	0%	0%	0%	-	0.4%
Articulated Trucks	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Buses	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Bicycles on Road	0	1	0	1	-	2	0	0	2	-	0	0	0	0	-	3
% Bicycles on Road	0%	0.4%	0%	0.4%	-	0.9%	0%	0%	0.9%	-	0%	0%	0%	0%	-	0.6%
Pedestrians	-	-	-	-	1	-	-	-	-	0	-	-	-	-	14	-
% Pedestrians	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	0%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Cady & Church - TMC

Tue Oct 19, 2021

PM Peak (5 PM - 6 PM) - Overall Peak Hour

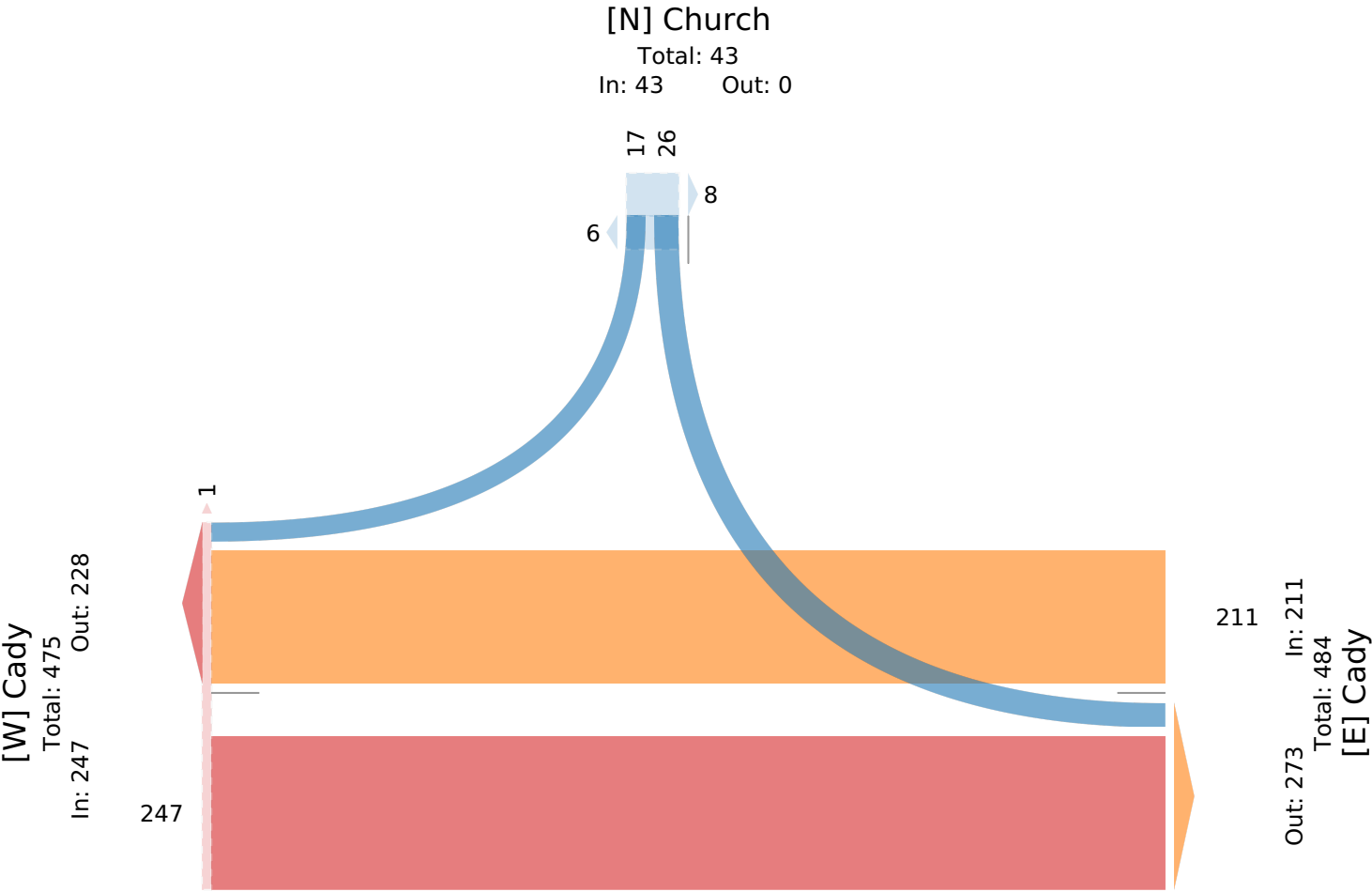
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886936, Location: 42.430245, -83.480269



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Griswold & Cady - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886929, Location: 42.430343, -83.47872



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Cady Eastbound							Cady Westbound							Griswold Northbound							Griswold Southbound							
Time	L	T	R	U	App	Ped*		L	T	R	U	App	Ped*		L	T	R	U	App	Ped*		L	T	R	U	App	Ped*		Int
2021-10-19 7:00AM	25	2	2	0	29	2		0	0	0	0	0	0		2	2	1	0	5	0		0	1	11	0	12	0		46
7:15AM	25	2	4	0	31	0		0	0	0	0	0	0		1	1	0	0	2	0		0	2	17	0	19	0		52
7:30AM	22	3	7	0	32	0		0	0	0	0	0	0		0	3	0	0	3	0		0	2	17	0	19	0		54
7:45AM	36	3	10	0	49	0		0	3	0	0	3	0		1	5	2	0	8	0		1	3	17	0	21	0		81
Hourly Total	108	10	23	0	141	2		0	3	0	0	3	0		4	11	3	0	18	0		1	8	62	0	71	0		233
8:00AM	39	7	6	0	52	0		0	0	0	0	0	0		1	6	0	0	7	0		3	2	29	0	34	0		93
8:15AM	43	4	4	0	51	0		0	3	0	0	3	0		2	5	1	0	8	0		0	5	18	0	23	0		85
8:30AM	52	8	4	0	64	0		0	1	0	0	1	0		6	10	2	0	18	0		0	4	31	0	35	0		118
8:45AM	37	6	5	0	48	0		0	5	0	0	5	0		6	5	1	0	12	0		1	3	41	0	45	0		110
Hourly Total	171	25	19	0	215	0		0	9	0	0	9	0		15	26	4	0	45	0		4	14	119	0	137	0		406
4:00PM	61	9	10	0	80	0		0	3	0	0	3	2		3	4	0	0	7	0		0	9	39	0	48	1		138
4:15PM	48	5	8	0	61	1		0	3	0	0	3	1		3	7	0	0	10	0		0	13	31	0	44	2		118
4:30PM	46	9	9	0	64	1		0	2	0	0	2	0		1	13	0	0	14	0		2	12	38	0	52	3		132
4:45PM	43	7	9	0	59	3		1	0	0	0	1	1		6	12	1	0	19	0		0	8	41	0	49	0		128
Hourly Total	198	30	36	0	264	5		1	8	0	0	9	4		13	36	1	0	50	0		2	42	149	0	193	6		516
5:00PM	59	5	6	0	70	5		1	3	3	0	7	2		4	7	0	0	11	0		0	10	38	0	48	1		136
5:15PM	54	8	11	0	73	4		0	3	3	0	6	0		4	9	0	0	13	0		0	12	52	0	64	2		156
5:30PM	46	2	13	0	61	1		0	3	1	0	4	2		3	8	0	0	11	1		1	15	50	0	66	0		142
5:45PM	56	3	11	0	70	0		0	1	0	0	1	0		7	9	0	0	16	0		0	15	35	0	50	0		137
Hourly Total	215	18	41	0	274	10		1	10	7	0	18	4		18	33	0	0	51	1		1	52	175	0	228	3		571
Total	692	83	119	0	894	17		2	30	7	0	39	8		50	106	8	0	164	1		8	116	505	0	629	9		1726
% Approach	77.4%	9.3%	13.3%	0%	-	-		5.1%	76.9%	17.9%	0%	-	-		30.5%	64.6%	4.9%	0%	-	-		1.3%	18.4%	80.3%	0%	-	-		-
% Total	40.1%	4.8%	6.9%	0%	51.8%	-		0.1%	1.7%	0.4%	0%	2.3%	-		2.9%	6.1%	0.5%	0%	9.5%	-		0.5%	6.7%	29.3%	0%	36.4%	-		-
Lights	689	81	115	0	885	-		2	30	7	0	39	-		46	102	8	0	156	-		7	110	500	0	617	-		1697
% Lights	99.6%	97.6%	96.6%	0%	99.0%	-		100%	100%	100%	0%	100%	-		92.0%	96.2%	100%	0%	95.1%	-		87.5%	94.8%	99.0%	0%	98.1%	-		98.3%
Single-Unit Trucks	2	2	1	0	5	-		0	0	0	0	0	-		0	1	0	0	1	-		0	0	5	0	5	-		11
% Single-Unit Trucks	0.3%	2.4%	0.8%	0%	0.6%	-		0%	0%	0%	0%	0%	-		0%	0.9%	0%	0%	0.6%	-		0%	0%	1.0%	0%	0.8%	-		0.6%
Articulated Trucks	1	0	0	0	1	-		0	0	0	0	0	-		0	0	0	0	0	-		0	0	0	0	0	-		1
% Articulated Trucks	0.1%	0%	0%	0%	0.1%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0.1%
Buses	0	0	0	0	0	-		0	0	0	0	0	-		0	1	0	0	1	-		0	1	0	0	1	-		2
% Buses	0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0.9%	0%	0%	0.6%	-		0%	0.9%	0%	0%	0.2%	-		0.1%
Bicycles on Road	0	0	3	0	3	-		0	0	0	0	0	-		4	2	0	0	6	-		1	5	0	0	6	-		15
% Bicycles on Road	0%	0%	2.5%	0%	0.3%	-		0%	0%	0%	0%	0%	-		8.0%	1.9%	0%	0%	3.7%	-		12.5%	4.3%	0%	0%	1.0%	-		0.9%
Pedestrians	-	-	-	-	-	15		-	-	-	-	-	8		-	-	-	-	-	1		-	-	-	-	-	7		
% Pedestrians	-	-	-	-	-	88.2%		-	-	-	-	-	100%		-	-	-	-	-	100%		-	-	-	-	-	77.8%		-
Bicycles on Crosswalk	-	-	-	-	-	2		-	-	-	-	-	0		-	-	-	-	-	0		-	-	-	-	-	2		
% Bicycles on Crosswalk	-	-	-	-	-	11.8%		-	-	-	-	-	0%		-	-	-	-	-	0%		-	-	-	-	-	22.2%		-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Griswold & Cady - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886929, Location: 42.430343, -83.47872



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

[N] Griswold

Total: 1434

In: 629

Out: 805

505 116 8

2 7

[W] Cady

Total: 1479

In: 894

Out: 585

692

83

119

8

1

50

106

8

Out: 237 In: 164

Total: 401

[S] Griswold

Out: 99 In: 39

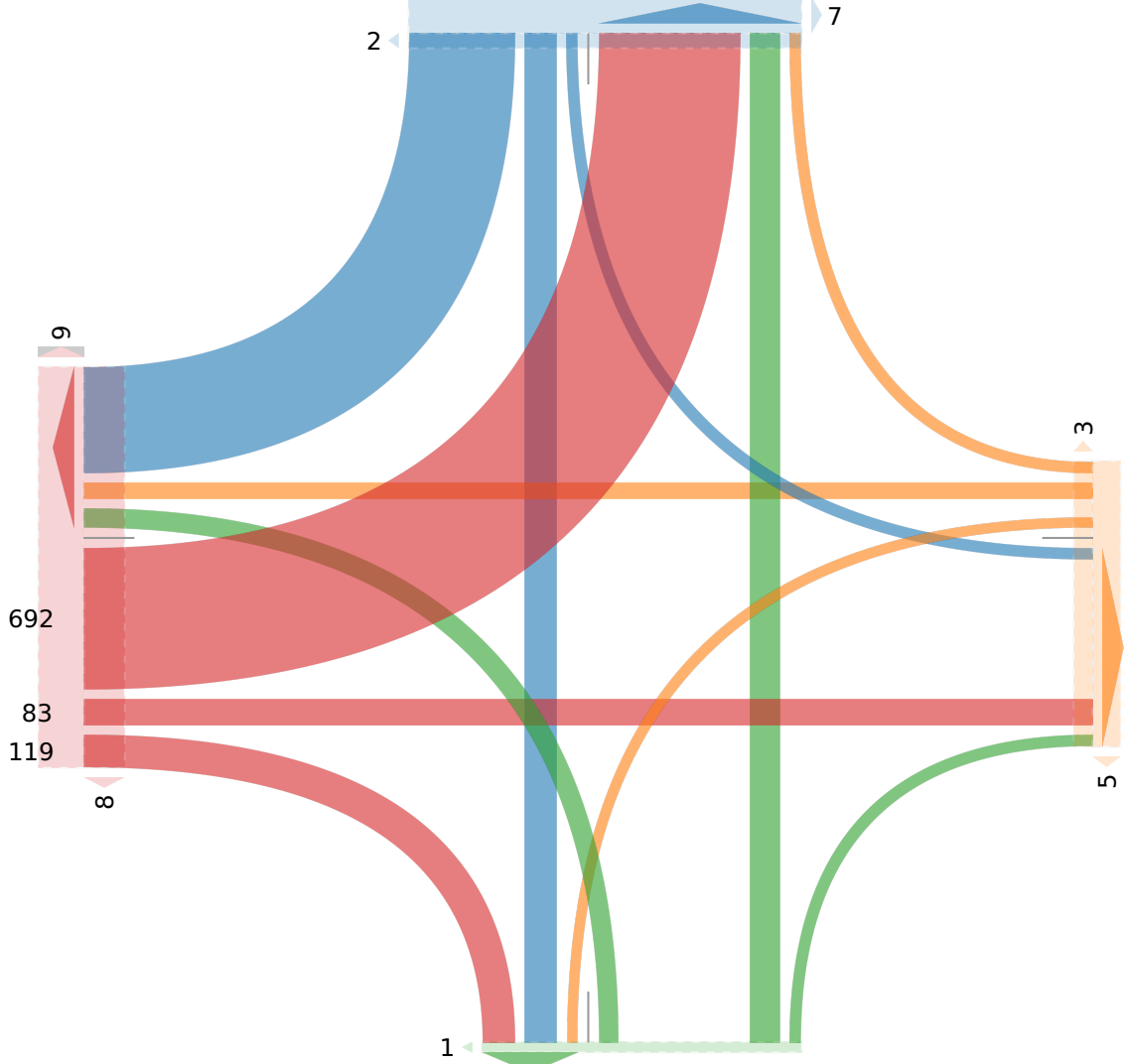
Total: 138

[E] Cady

30 2 7

3

5



Griswold & Cady - TMC

Tue Oct 19, 2021

AM Peak (8 AM - 9 AM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886929, Location: 42.430343, -83.47872



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Cady Eastbound						Cady Westbound						Griswold Northbound						Griswold Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 8:00AM	39	7	6	0	52	0	0	0	0	0	0	0	1	6	0	0	7	0	3	2	29	0	34	0	93
8:15AM	43	4	4	0	51	0	0	3	0	0	3	0	2	5	1	0	8	0	0	5	18	0	23	0	85
8:30AM	52	8	4	0	64	0	0	1	0	0	1	0	6	10	2	0	18	0	0	4	31	0	35	0	118
8:45AM	37	6	5	0	48	0	0	5	0	0	5	0	6	5	1	0	12	0	1	3	41	0	45	0	110
Total	171	25	19	0	215	0	0	9	0	0	9	0	15	26	4	0	45	0	4	14	119	0	137	0	406
% Approach	79.5%	11.6%	8.8%	0%	-	-	0%	100%	0%	0%	-	-	33.3%	57.8%	8.9%	0%	-	-	2.9%	10.2%	86.9%	0%	-	-	-
% Total	42.1%	6.2%	4.7%	0%	53.0%	-	0%	2.2%	0%	0%	2.2%	-	3.7%	6.4%	1.0%	0%	11.1%	-	1.0%	3.4%	29.3%	0%	33.7%	-	-
PHF	0.822	0.781	0.792	-	0.840	-	-	0.450	-	-	0.450	-	0.625	0.650	0.500	-	0.625	-	0.333	0.700	0.726	-	0.761	-	0.860
Lights	170	25	19	0	214	-	0	9	0	0	9	-	15	24	4	0	43	-	4	14	118	0	136	-	402
% Lights	99.4%	100%	100%	0%	99.5%	-	0%	100%	0%	0%	100%	-	100%	92.3%	100%	0%	95.6%	-	100%	100%	99.2%	0%	99.3%	-	99.0%
Single-Unit Trucks	1	0	0	0	1	-	0	0	0	0	0	-	0	1	0	0	1	-	0	0	1	0	1	-	3
% Single-Unit Trucks	0.6%	0%	0%	0%	0.5%	-	0%	0%	0%	0%	0%	-	0%	3.8%	0%	0%	2.2%	-	0%	0%	0.8%	0%	0.7%	-	0.7%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses	0	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	1
% Buses	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	3.8%	0%	0%	2.2%	-	0%	0%	0%	0%	0%	-	0.2%
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Griswold & Cady - TMC

Tue Oct 19, 2021

AM Peak (8 AM - 9 AM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886929, Location: 42.430343, -83.47872



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

[N] Griswold

Total: 334

In: 137

Out: 197

119

14

4

[W] Cady

Total: 358

Out: 143

In: 215

171

25

19

9

Out: 33 In: 9

Total: 42

[E] Cady

Out: 33

In: 45

Total: 78

[S] Griswold

15

26

4

Griswold & Cady - TMC

Tue Oct 19, 2021

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886929, Location: 42.430343, -83.47872

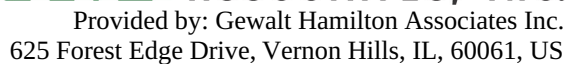


Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Cady Eastbound						Cady Westbound						Griswold Northbound						Griswold Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 5:00PM	59	5	6	0	70	5	1	3	3	0	7	2	4	7	0	0	11	0	0	10	38	0	48	1	136
5:15PM	54	8	11	0	73	4	0	3	3	0	6	0	4	9	0	0	13	0	0	12	52	0	64	2	156
5:30PM	46	2	13	0	61	1	0	3	1	0	4	2	3	8	0	0	11	1	1	15	50	0	66	0	142
5:45PM	56	3	11	0	70	0	0	1	0	0	1	0	7	9	0	0	16	0	0	15	35	0	50	0	137
Total	215	18	41	0	274	10	1	10	7	0	18	4	18	33	0	0	51	1	1	52	175	0	228	3	571
% Approach	78.5%	6.6%	15.0%	0%	-	-	5.6%	55.6%	38.9%	0%	-	-	35.3%	64.7%	0%	0%	-	-	0.4%	22.8%	76.8%	0%	-	-	-
% Total	37.7%	3.2%	7.2%	0%	48.0%	-	0.2%	1.8%	1.2%	0%	3.2%	-	3.2%	5.8%	0%	0%	8.9%	-	0.2%	9.1%	30.6%	0%	39.9%	-	-
PHF	0.911	0.563	0.769	-	0.948	-	0.250	0.833	0.583	-	0.643	-	0.667	0.889	-	-	0.857	-	0.250	0.875	0.841	-	0.879	-	0.916
Lights	214	18	39	0	271	-	1	10	7	0	18	-	16	32	0	0	48	-	1	49	174	0	224	-	561
% Lights	99.5%	100%	95.1%	0%	98.9%	-	100%	100%	100%	0%	100%	-	88.9%	97.0%	0%	0%	94.1%	-	100%	94.2%	99.4%	0%	98.2%	-	98.2%
Single-Unit Trucks	1	0	1	0	2	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	1	-	3
% Single-Unit Trucks	0.5%	0%	2.4%	0%	0.7%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0.6%	0%	0.4%	-	0.5%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Bicycles on Road	0	0	1	0	1	-	0	0	0	0	0	-	2	1	0	0	3	-	0	3	0	0	3	-	7
% Bicycles on Road	0%	0%	2.4%	0%	0.4%	-	0%	0%	0%	0%	0%	-	11.1%	3.0%	0%	0%	5.9%	-	0%	5.8%	0%	0%	1.3%	-	1.2%
Pedestrians	-	-	-	-	-	10	-	-	-	-	-	4	-	-	-	-	-	1	-	-	-	-	-	3	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

ID: 886929, Location: 42.430343, -83.47872



Wing & Fairbrook - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886938, Location: 42.427437, -83.484339



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Fairbrook Eastbound						Fairbrook Westbound						Wing Northbound						Wing Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 7:00AM	2	2	0	0	4	0	0	0	3	0	3	1	0	11	1	0	12	0	4	20	1	0	25	1	44
7:15AM	1	1	0	0	2	0	0	0	7	0	7	1	0	15	0	0	15	0	7	18	0	0	25	0	49
7:30AM	1	2	1	0	4	0	0	0	12	0	12	0	1	16	1	0	18	0	6	25	1	0	32	1	66
7:45AM	4	4	0	0	8	0	0	1	8	0	9	0	0	24	1	0	25	0	11	28	1	0	40	0	82
Hourly Total	8	9	1	0	18	0	0	1	30	0	31	2	1	66	3	0	70	0	28	91	3	0	122	2	241
8:00AM	3	3	1	0	7	1	0	0	4	0	4	0	1	12	0	0	13	1	19	34	3	0	56	0	80
8:15AM	5	5	0	0	10	0	0	0	8	0	8	0	1	18	0	0	19	0	9	29	0	0	38	2	75
8:30AM	2	2	0	0	4	1	0	1	2	0	3	0	0	21	0	0	21	1	8	25	0	0	33	1	61
8:45AM	4	1	1	0	6	0	0	0	4	0	4	2	1	19	0	0	20	0	6	26	0	0	32	2	62
Hourly Total	14	11	2	0	27	2	0	1	18	0	19	2	3	70	0	0	73	2	42	114	3	0	159	5	278
4:00PM	5	1	0	0	6	0	0	3	14	0	17	1	0	19	0	0	19	0	12	29	5	0	46	3	88
4:15PM	2	1	2	0	5	0	2	1	12	0	15	3	1	18	2	0	21	0	8	29	1	0	38	2	79
4:30PM	4	1	0	0	5	0	0	3	18	0	21	1	0	42	1	0	43	0	13	28	2	0	43	0	112
4:45PM	5	2	0	0	7	0	0	4	20	0	24	2	0	26	1	0	27	0	13	44	3	0	60	0	118
Hourly Total	16	5	2	0	23	0	2	11	64	0	77	7	1	105	4	0	110	0	46	130	11	0	187	5	397
5:00PM	1	1	1	0	3	0	0	2	18	0	20	1	1	25	0	0	26	0	8	49	5	0	62	0	111
5:15PM	5	1	0	0	6	0	0	0	23	0	23	1	0	24	1	0	25	0	20	38	3	0	61	0	115
5:30PM	2	1	1	0	4	1	0	3	15	0	18	1	0	22	0	0	22	0	7	39	0	0	46	2	90
5:45PM	3	0	0	0	3	0	1	1	17	0	19	3	0	33	0	0	33	0	13	44	4	0	61	1	116
Hourly Total	11	3	2	0	16	1	1	6	73	0	80	6	1	104	1	0	106	0	48	170	12	0	230	3	432
Total	49	28	7	0	84	3	3	19	185	0	207	17	6	345	8	0	359	2	164	505	29	0	698	15	1348
% Approach	58.3%	33.3%	8.3%	0%	-	-	1.4%	9.2%	89.4%	0%	-	-	1.7%	96.1%	2.2%	0%	-	-	23.5%	72.3%	4.2%	0%	-	-	-
% Total	3.6%	2.1%	0.5%	0%	6.2%	-	0.2%	1.4%	13.7%	0%	15.4%	-	0.4%	25.6%	0.6%	0%	26.6%	-	12.2%	37.5%	2.2%	0%	51.8%	-	-
Lights	48	27	7	0	82	-	2	16	179	0	197	-	5	331	7	0	343	-	161	495	26	0	682	-	1304
% Lights	98.0%	96.4%	100%	0%	97.6%	-	66.7%	84.2%	96.8%	0%	95.2%	-	83.3%	95.9%	87.5%	0%	95.5%	-	98.2%	98.0%	89.7%	0%	97.7%	-	96.7%
Single-Unit Trucks	1	0	0	0	1	-	1	1	1	0	3	-	0	6	0	0	6	-	0	2	0	0	2	-	12
% Single-Unit Trucks	2.0%	0%	0%	0%	1.2%	-	33.3%	5.3%	0.5%	0%	1.4%	-	0%	1.7%	0%	0%	1.7%	-	0%	0.4%	0%	0%	0.3%	-	0.9%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses	0	0	0	0	0	-	0	2	2	0	4	-	1	5	0	0	6	-	2	4	2	0	8	-	18
% Buses	0%	0%	0%	0%	0%	-	0%	10.5%	1.1%	0%	1.9%	-	16.7%	1.4%	0%	0%	1.7%	-	1.2%	0.8%	6.9%	0%	1.1%	-	1.3%
Bicycles on Road	0	1	0	0	1	-	0	0	3	0	3	-	0	3	1	0	4	-	1	4	1	0	6	-	14
% Bicycles on Road	0%	3.6%	0%	0%	1.2%	-	0%	0%	1.6%	0%	1.4%	-	0%	0.9%	12.5%	0%	1.1%	-	0.6%	0.8%	3.4%	0%	0.9%	-	1.0%
Pedestrians	-	-	-	-	-	3	-	-	-	-	-	14	-	-	-	-	-	2	-	-	-	-	-	15	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	82.4%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	17.6%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Wing & Fairbrook - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886938, Location: 42.427437, -83.484339



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

[N] Wing

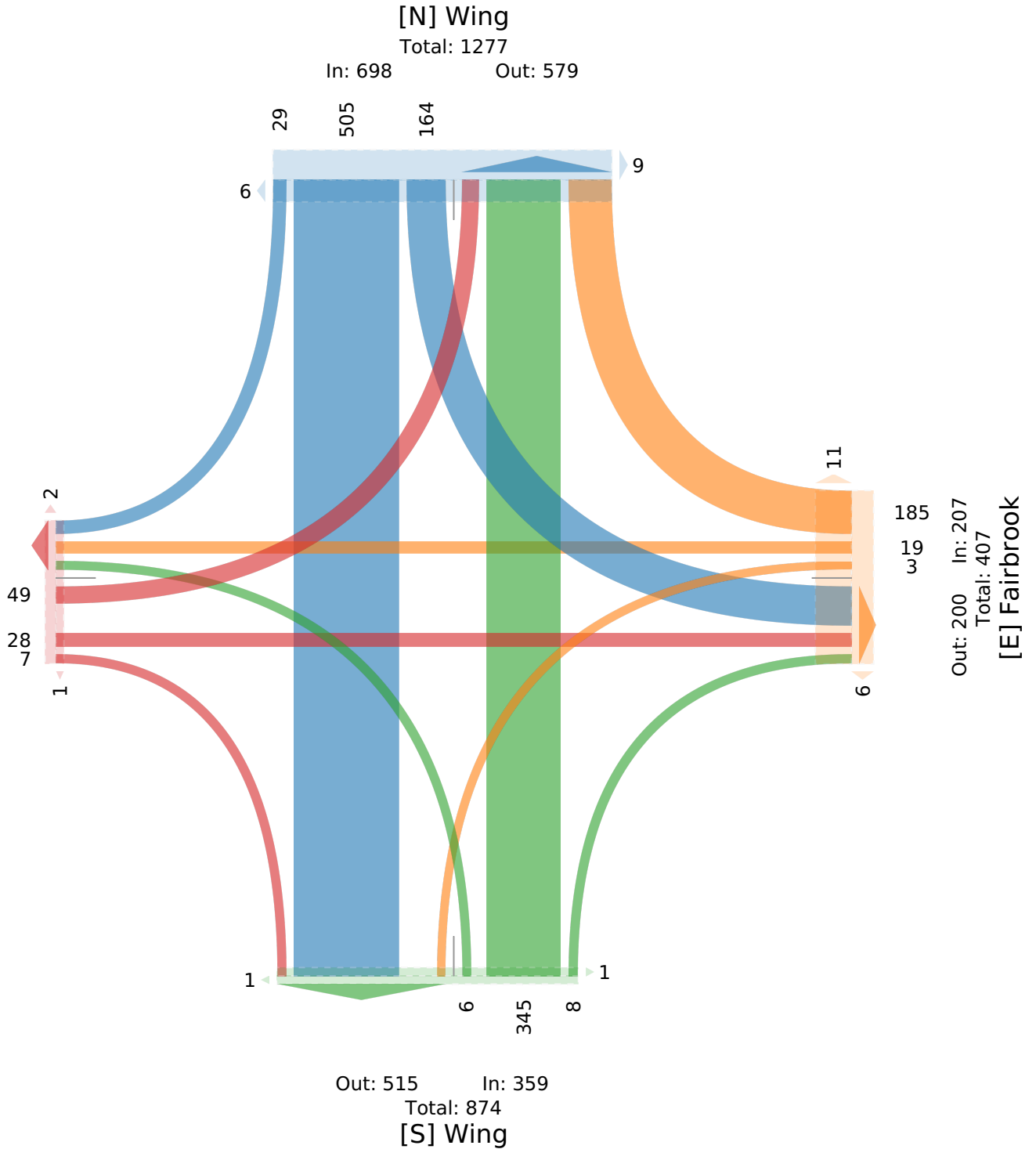
Total: 1277

In: 698

Out: 579

[W] Fairbrook

Total: 138
In: 84 Out: 54



Wing & Fairbrook - TMC

Tue Oct 19, 2021

AM Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians,
Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886938, Location: 42.427437, -83.484339



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Fairbrook Eastbound							Fairbrook Westbound							Wing Northbound							Wing Southbound							
Time	L	T	R	U	App	Ped*		L	T	R	U	App	Ped*		L	T	R	U	App	Ped*		L	T	R	U	App	Ped*		Int
2021-10-19 7:30AM	1	2	1	0	4	0		0	0	12	0	12	0		1	16	1	0	18	0		6	25	1	0	32	1		66
7:45AM	4	4	0	0	8	0		0	1	8	0	9	0		0	24	1	0	25	0		11	28	1	0	40	0		82
8:00AM	3	3	1	0	7	1		0	0	4	0	4	0		1	12	0	0	13	1		19	34	3	0	56	0		80
8:15AM	5	5	0	0	10	0		0	0	8	0	8	0		1	18	0	0	19	0		9	29	0	0	38	2		75
Total	13	14	2	0	29	1		0	1	32	0	33	0		3	70	2	0	75	1		45	116	5	0	166	3		303
% Approach	44.8%	48.3%	6.9%	0%	-	-		0%	3.0%	97.0%	0%	-	-		4.0%	93.3%	2.7%	0%	-	-		27.1%	69.9%	3.0%	0%	-	-		-
% Total	4.3%	4.6%	0.7%	0%	9.6%	-		0%	0.3%	10.6%	0%	10.9%	-		1.0%	23.1%	0.7%	0%	24.8%	-		14.9%	38.3%	1.7%	0%	54.8%	-		-
PHF	0.650	0.700	0.500	-	0.725	-		-	0.250	0.667	-	0.688	-		0.750	0.729	0.500	-	0.750	-		0.592	0.853	0.417	-	0.741	-		0.924
Lights	13	14	2	0	29	-		0	1	32	0	33	-		2	63	2	0	67	-		45	111	4	0	160	-		289
% Lights	100%	100%	100%	0%	100%	-		0%	100%	100%	0%	100%	-		66.7%	90.0%	100%	0%	89.3%	-		100%	95.7%	80.0%	0%	96.4%	-		95.4%
Single-Unit Trucks	0	0	0	0	0	-		0	0	0	0	0	-		0	5	0	0	5	-		0	1	0	0	1	-		6
% Single-Unit Trucks	0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	7.1%	0%	0%	6.7%	-		0%	0.9%	0%	0%	0.6%	-		2.0%
Articulated Trucks	0	0	0	0	0	-		0	0	0	0	0	-		0	0	0	0	0	-		0	0	0	0	0	-		0
% Articulated Trucks	0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%
Buses	0	0	0	0	0	-		0	0	0	0	0	-		1	2	0	0	3	-		0	4	1	0	5	-		8
% Buses	0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		33.3%	2.9%	0%	0%	4.0%	-		0%	3.4%	20.0%	0%	3.0%	-		2.6%
Bicycles on Road	0	0	0	0	0	-		0	0	0	0	0	-		0	0	0	0	0	-		0	0	0	0	0	-		0
% Bicycles on Road	0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%
Pedestrians	-	-	-	-	-	1		-	-	-	-	-	0		-	-	-	-	-	1		-	-	-	-	-	3		
% Pedestrians	-	-	-	-	-	100%		-	-	-	-	-	-		-	-	-	-	-	100%		-	-	-	-	-	100%		-
Bicycles on Crosswalk	-	-	-	-	-	0		-	-	-	-	-	0		-	-	-	-	-	0		-	-	-	-	-	0		
% Bicycles on Crosswalk	-	-	-	-	-	0%		-	-	-	-	-	-		-	-	-	-	-	0%		-	-	-	-	-	0%		-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Wing & Fairbrook - TMC

Tue Oct 19, 2021

AM Peak (7:30 AM - 8:30 AM)

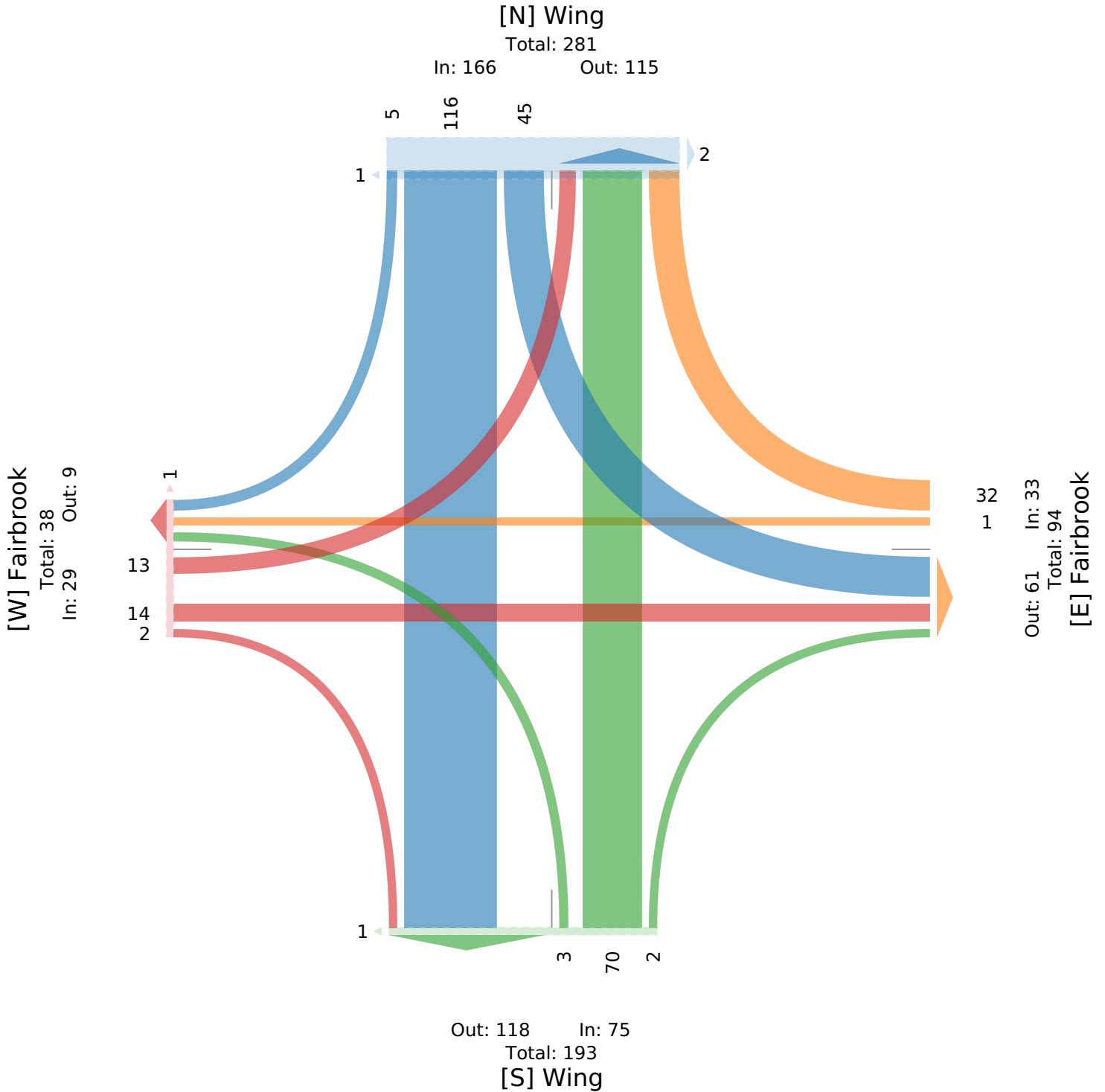
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886938, Location: 42.427437, -83.484339



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Wing & Fairbrook - TMC

Tue Oct 19, 2021

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886938, Location: 42.427437, -83.484339



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Fairbrook Eastbound						Fairbrook Westbound						Wing Northbound						Wing Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 4:30PM	4	1	0	0	5	0	0	3	18	0	21	1	0	42	1	0	43	0	13	28	2	0	43	0	112
4:45PM	5	2	0	0	7	0	0	4	20	0	24	2	0	26	1	0	27	0	13	44	3	0	60	0	118
5:00PM	1	1	1	0	3	0	0	2	18	0	20	1	1	25	0	0	26	0	8	49	5	0	62	0	111
5:15PM	5	1	0	0	6	0	0	0	23	0	23	1	0	24	1	0	25	0	20	38	3	0	61	0	115
Total	15	5	1	0	21	0	0	9	79	0	88	5	1	117	3	0	121	0	54	159	13	0	226	0	456
% Approach	71.4%	23.8%	4.8%	0%	-	-	0%	10.2%	89.8%	0%	-	-	0.8%	96.7%	2.5%	0%	-	-	23.9%	70.4%	5.8%	0%	-	-	-
% Total	3.3%	1.1%	0.2%	0%	4.6%	-	0%	2.0%	17.3%	0%	19.3%	-	0.2%	25.7%	0.7%	0%	26.5%	-	11.8%	34.9%	2.9%	0%	49.6%	-	-
PHF	0.750	1.000	0.250	-	0.833	-	-	0.563	0.886	-	0.906	-	0.250	0.690	0.500	-	0.692	-	0.663	0.818	0.650	-	0.914	-	0.976
Lights	14	4	1	0	19	-	0	6	77	0	83	-	1	115	2	0	118	-	53	156	13	0	222	-	442
% Lights	93.3%	80.0%	100%	0%	90.5%	-	0%	66.7%	97.5%	0%	94.3%	-	100%	98.3%	66.7%	0%	97.5%	-	98.1%	98.1%	100%	0%	98.2%	-	96.9%
Single-Unit Trucks	1	0	0	0	1	-	0	1	0	0	1	-	0	0	0	0	0	-	0	1	0	0	1	-	3
% Single-Unit Trucks	6.7%	0%	0%	0%	4.8%	-	0%	11.1%	0%	0%	1.1%	-	0%	0%	0%	0%	0%	-	0%	0.6%	0%	0%	0.4%	-	0.7%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses	0	0	0	0	0	-	0	2	1	0	3	-	0	1	0	0	1	-	0	0	0	0	0	-	4
% Buses	0%	0%	0%	0%	0%	-	0%	22.2%	1.3%	0%	3.4%	-	0%	0.9%	0%	0%	0.8%	-	0%	0%	0%	0%	0%	-	0.9%
Bicycles on Road	0	1	0	0	1	-	0	0	1	0	1	-	0	1	1	0	2	-	1	2	0	0	3	-	7
% Bicycles on Road	0%	20.0%	0%	0%	4.8%	-	0%	0%	1.3%	0%	1.1%	-	0%	0.9%	33.3%	0%	1.7%	-	1.9%	1.3%	0%	0%	1.3%	-	1.5%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	80.0%	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	20.0%	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Wing & Fairbrook - TMC

Tue Oct 19, 2021

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

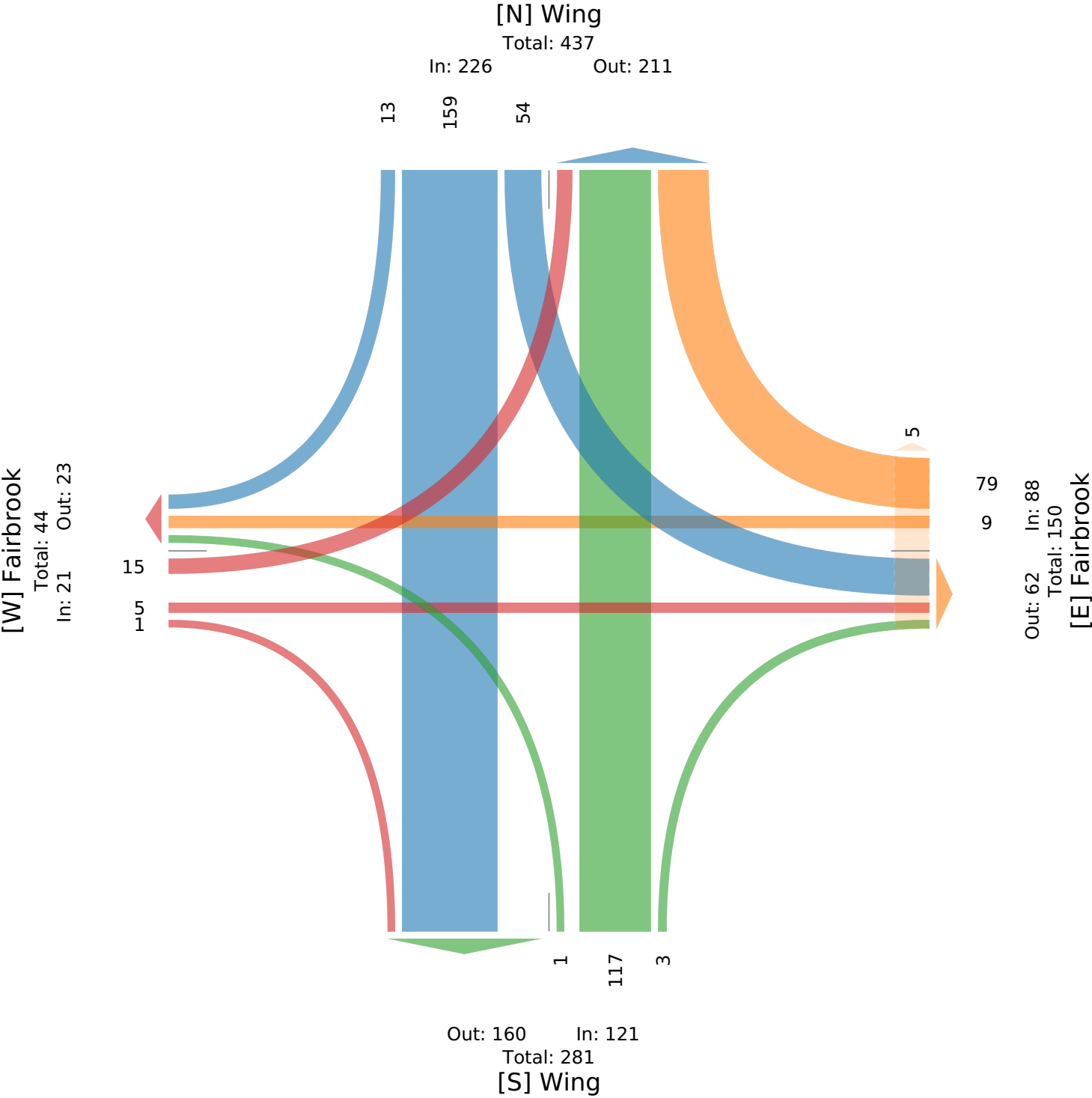
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886938, Location: 42.427437, -83.484339



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Fairbrook & Center - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886926, Location: 42.42756, -83.482854



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Fairbrook Eastbound					Center Northbound					Center Southbound					
Time	L	R	U	App	Ped*	L	T	U	App	Ped*	T	R	U	App	Ped*	Int
2021-10-19 7:00AM	3	4	0	7	1	3	46	0	49	0	51	0	0	51	0	107
7:15AM	1	7	0	8	1	6	79	0	85	0	47	1	0	48	0	141
7:30AM	2	8	0	10	0	12	72	0	84	0	58	1	0	59	0	153
7:45AM	4	11	0	15	0	8	103	0	111	0	83	1	0	84	0	210
Hourly Total	10	30	0	40	2	29	300	0	329	0	239	3	0	242	0	611
8:00AM	1	19	0	20	0	4	100	0	104	0	108	0	0	108	0	232
8:15AM	5	11	0	16	0	7	108	0	115	0	75	0	0	75	0	206
8:30AM	3	7	0	10	0	2	112	0	114	0	67	1	0	68	0	192
8:45AM	1	6	0	7	0	4	102	0	106	0	59	0	0	59	0	172
Hourly Total	10	43	0	53	0	17	422	0	439	0	309	1	0	310	0	802
4:00PM	1	11	0	12	1	15	117	0	132	0	106	1	0	107	0	251
4:15PM	3	8	0	11	0	15	141	0	156	0	94	1	0	95	0	262
4:30PM	1	13	0	14	0	19	111	0	130	0	87	1	0	88	0	232
4:45PM	3	13	0	16	2	20	147	0	167	0	89	2	0	91	0	274
Hourly Total	8	45	0	53	3	69	516	0	585	0	376	5	0	381	0	1019
5:00PM	0	8	0	8	1	19	130	0	149	0	108	2	0	110	0	267
5:15PM	4	17	0	21	3	22	146	0	168	2	107	1	0	108	0	297
5:30PM	0	10	0	10	0	16	138	0	154	0	112	2	0	114	0	278
5:45PM	1	12	0	13	1	17	142	0	159	0	102	1	0	103	0	275
Hourly Total	5	47	0	52	5	74	556	0	630	2	429	6	0	435	0	1117
Total	33	165	0	198	10	189	1794	0	1983	2	1353	15	0	1368	0	3549
% Approach	16.7%	83.3%	0%	-	-	9.5%	90.5%	0%	-	-	98.9%	1.1%	0%	-	-	-
% Total	0.9%	4.6%	0%	5.6%	-	5.3%	50.5%	0%	55.9%	-	38.1%	0.4%	0%	38.5%	-	-
Lights	33	162	0	195	-	181	1775	0	1956	-	1325	15	0	1340	-	3491
% Lights	100%	98.2%	0%	98.5%	-	95.8%	98.9%	0%	98.6%	-	97.9%	100%	0%	98.0%	-	98.4%
Single-Unit Trucks	0	0	0	0	-	3	4	0	7	-	12	0	0	12	-	19
% Single-Unit Trucks	0%	0%	0%	0%	-	1.6%	0.2%	0%	0.4%	-	0.9%	0%	0%	0.9%	-	0.5%
Articulated Trucks	0	0	0	0	-	0	1	0	1	-	1	0	0	1	-	2
% Articulated Trucks	0%	0%	0%	0%	-	0%	0.1%	0%	0.1%	-	0.1%	0%	0%	0.1%	-	0.1%
Buses	0	2	0	2	-	4	5	0	9	-	5	0	0	5	-	16
% Buses	0%	1.2%	0%	1.0%	-	2.1%	0.3%	0%	0.5%	-	0.4%	0%	0%	0.4%	-	0.5%
Bicycles on Road	0	1	0	1	-	1	9	0	10	-	10	0	0	10	-	21
% Bicycles on Road	0%	0.6%	0%	0.5%	-	0.5%	0.5%	0%	0.5%	-	0.7%	0%	0%	0.7%	-	0.6%
Pedestrians	-	-	-	-	9	-	-	-	-	2	-	-	-	-	0	-
% Pedestrians	-	-	-	-	90.0%	-	-	-	-	100%	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	10.0%	-	-	-	-	0%	-	-	-	-	-	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Fairbrook & Center - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

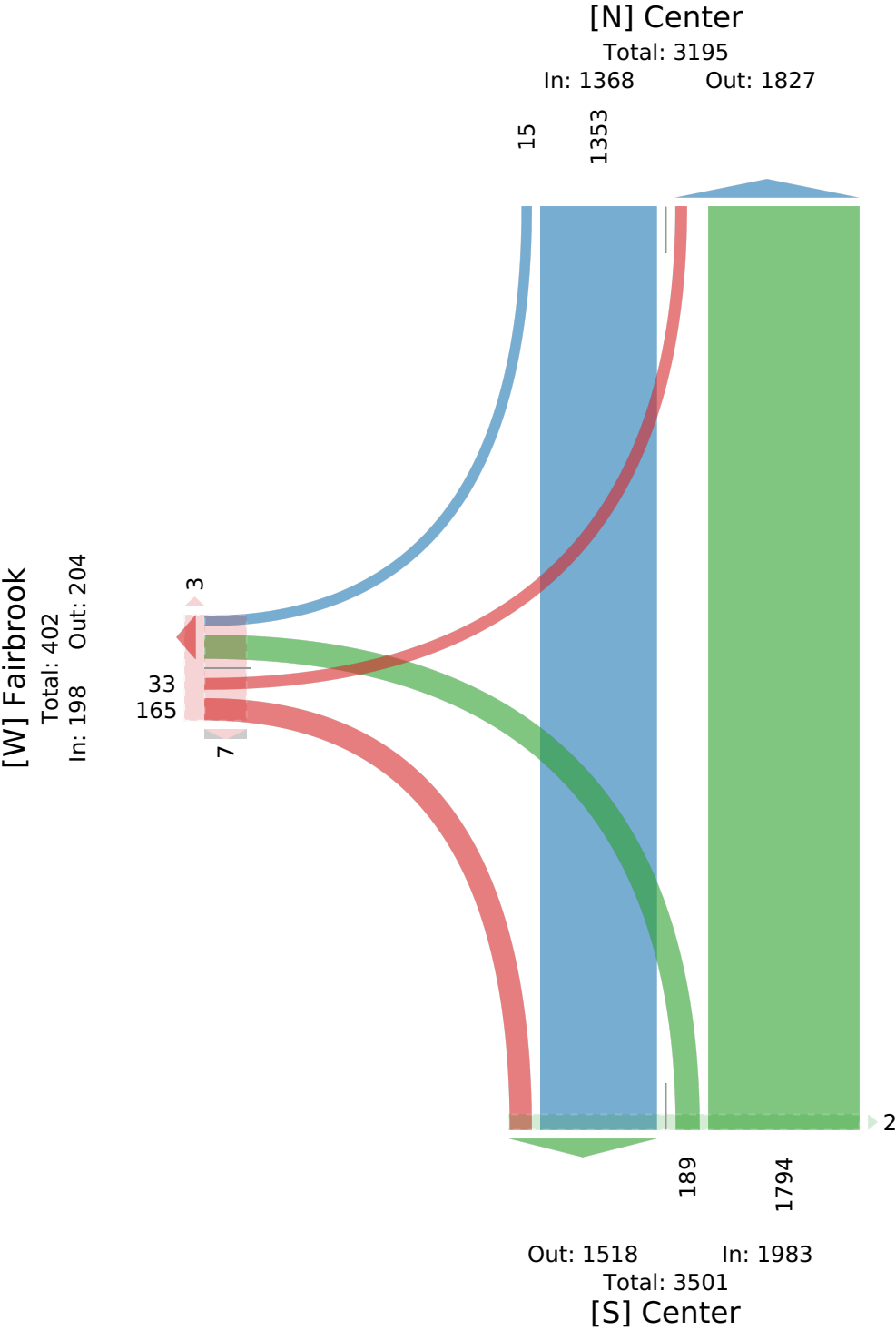
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886926, Location: 42.42756, -83.482854



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Fairbrook & Center - TMC

Tue Oct 19, 2021

AM Peak (7:45 AM - 8:45 AM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886926, Location: 42.42756, -83.482854



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Fairbrook Eastbound					Center Northbound					Center Southbound					
Time	L	R	U	App	Ped*	L	T	U	App	Ped*	T	R	U	App	Ped*	Int
2021-10-19 7:45AM	4	11	0	15	0	8	103	0	111	0	83	1	0	84	0	210
8:00AM	1	19	0	20	0	4	100	0	104	0	108	0	0	108	0	232
8:15AM	5	11	0	16	0	7	108	0	115	0	75	0	0	75	0	206
8:30AM	3	7	0	10	0	2	112	0	114	0	67	1	0	68	0	192
Total	13	48	0	61	0	21	423	0	444	0	333	2	0	335	0	840
% Approach	21.3%	78.7%	0%	-	-	4.7%	95.3%	0%	-	-	99.4%	0.6%	0%	-	-	-
% Total	1.5%	5.7%	0%	7.3%	-	2.5%	50.4%	0%	52.9%	-	39.6%	0.2%	0%	39.9%	-	-
PHF	0.650	0.632	-	0.763	-	0.656	0.944	-	0.965	-	0.769	0.500	-	0.773	-	0.904
Lights	13	46	0	59	-	21	419	0	440	-	325	2	0	327	-	826
% Lights	100%	95.8%	0%	96.7%	-	100%	99.1%	0%	99.1%	-	97.6%	100%	0%	97.6%	-	98.3%
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	-	4	0	0	4	-	4
% Single-Unit Trucks	0%	0%	0%	0%	-	0%	0%	0%	0%	-	1.2%	0%	0%	1.2%	-	0.5%
Articulated Trucks	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Buses	0	2	0	2	-	0	4	0	4	-	3	0	0	3	-	9
% Buses	0%	4.2%	0%	3.3%	-	0%	0.9%	0%	0.9%	-	0.9%	0%	0%	0.9%	-	1.1%
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	1	0	0	1	-	1
% Bicycles on Road	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0.3%	0%	0%	0.3%	-	0.1%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Fairbrook & Center - TMC

Tue Oct 19, 2021

AM Peak (7:45 AM - 8:45 AM)

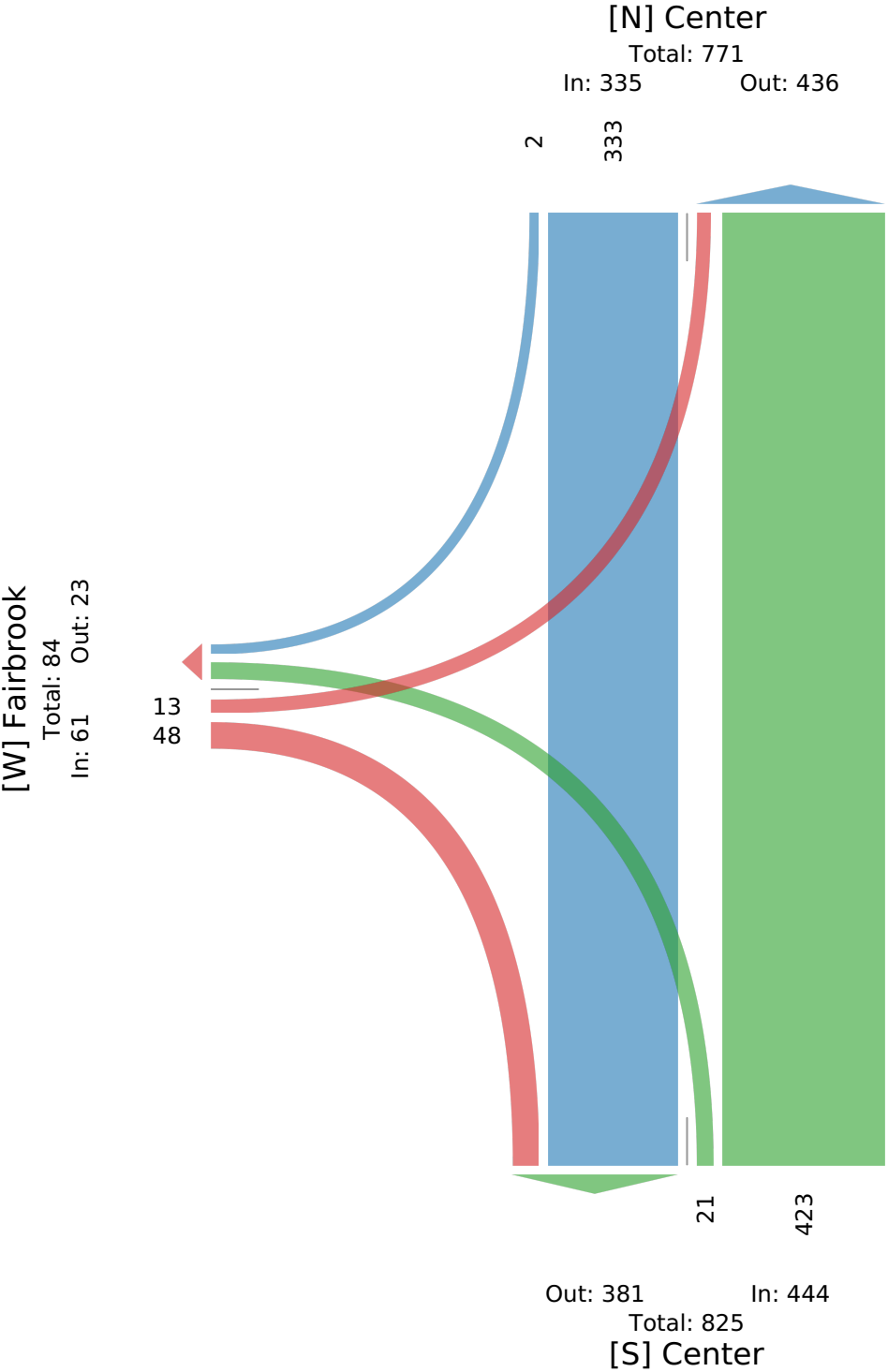
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886926, Location: 42.42756, -83.482854



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Fairbrook & Center - TMC

Tue Oct 19, 2021

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886926, Location: 42.42756, -83.482854



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Fairbrook Eastbound					Center Northbound					Center Southbound					
Time	L	R	U	App	Ped*	L	T	U	App	Ped*	T	R	U	App	Ped*	Int
2021-10-19 5:00PM	0	8	0	8	1	19	130	0	149	0	108	2	0	110	0	267
5:15PM	4	17	0	21	3	22	146	0	168	2	107	1	0	108	0	297
5:30PM	0	10	0	10	0	16	138	0	154	0	112	2	0	114	0	278
5:45PM	1	12	0	13	1	17	142	0	159	0	102	1	0	103	0	275
Total	5	47	0	52	5	74	556	0	630	2	429	6	0	435	0	1117
% Approach	9.6%	90.4%	0%	-	-	11.7%	88.3%	0%	-	-	98.6%	1.4%	0%	-	-	-
% Total	0.4%	4.2%	0%	4.7%	-	6.6%	49.8%	0%	56.4%	-	38.4%	0.5%	0%	38.9%	-	-
PHF	0.313	0.691	-	0.619	-	0.869	0.955	-	0.944	-	0.946	0.750	-	0.943	-	0.953
Lights	5	47	0	52	-	73	552	0	625	-	421	6	0	427	-	1104
% Lights	100%	100%	0%	100%	-	98.6%	99.3%	0%	99.2%	-	98.1%	100%	0%	98.2%	-	98.8%
Single-Unit Trucks	0	0	0	0	-	0	2	0	2	-	2	0	0	2	-	4
% Single-Unit Trucks	0%	0%	0%	0%	-	0%	0.4%	0%	0.3%	-	0.5%	0%	0%	0.5%	-	0.4%
Articulated Trucks	0	0	0	0	-	0	0	0	0	-	1	0	0	1	-	1
% Articulated Trucks	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0.2%	0%	0%	0.2%	-	0.1%
Buses	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Bicycles on Road	0	0	0	0	-	1	2	0	3	-	5	0	0	5	-	8
% Bicycles on Road	0%	0%	0%	0%	-	1.4%	0.4%	0%	0.5%	-	1.2%	0%	0%	1.1%	-	0.7%
Pedestrians	-	-	-	-	5	-	-	-	-	2	-	-	-	-	0	-
% Pedestrians	-	-	-	-	100%	-	-	-	-	100%	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	-	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Fairbrook & Center - TMC

Tue Oct 19, 2021

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 886926, Location: 42.42756, -83.482854



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

