DRAFT

Traffic Impact Study
Proposed Whole Foods Market
Chicago, Illinois

Prepared by

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1.
Introduction

This report summarizes the methodologies, results and findings of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the proposed Whole Food Market development, to be located in the northeast quadrant of the signalized intersection of Ashland/Belmont/Lincoln in Chicago, Illinois. The proposed store is a relocation of the approximate 39,000 square-foot Whole Foods Market, currently located in the northwest quadrant of Ashland Avenue and School Street.

The plans call for the site to include an approximate 70,000 square-foot Whole Foods Market with approximately 300 off-street parking spaces. The store will be on the second floor of the building. The parking garage will be on the main and lower levels. Access to the garage is proposed from a restricted access drive on Melrose Street and a restricted access drive on Belmont Avenue.

The primary pedestrian entry for the store will be from a customer lobby located in the southwest corner of the building.

In conjunction with this development, the following off-site improvements are proposed:

- Signalize the intersection of Melrose Street and Ashland Avenue and provide high visibility crosswalks and pedestrian countdown signals. The signal will include a southbound protected left-turn lagging phase.

- Convert Melrose Street to a one-way westbound operation between Greenview Avenue and the proposed access drive/north-south alley (maintaining two-way operations between Ashland Avenue and the proposed access drive/north-south alley)

- Remove approximately six Paybox parking spaces on Melrose Street between Ashland Avenue and the proposed access drive/north-south alley to provide one

lane eastbound and two lanes westbound at its approach to Ashland Avenue, striped to provide a separate left-turn lane and a separate right-turn lane.

- Restripe Ashland Avenue between School Street and Belmont Avenue to provide a dedicated southbound left-turn lane at Melrose Street.

- Remove approximately five Paybox parking spaces on the south side of Belmont Avenue between the bus stop and the alley.

- Modify the Ashland/Belmont/Lincoln traffic signal to provide lagging protected left-turn phasing (left-turn arrow) for the northbound and southbound left-turn movements on Ashland Avenue

- Modify the cycle length at the Ashland/School intersection to run at a 100 second cycle, which matches the Belmont/Ashland/Lincoln intersection cycle length

The following sections of this report present the following.

- Existing street conditions including vehicle, pedestrian, and bicycle traffic volumes for the weekday morning, weekday evening, and Saturday midday peak hours
- A detailed description of the proposed development
- Vehicle trip generation for the proposed development
- Directional distribution of development-generated traffic
- Future transportation conditions including access to and from the development

Traffic capacity analyses were conducted for the weekday morning, weekday evening, and Saturday midday peak hours for the following two conditions.

1. Existing Condition - Analyzes the capacity of the existing street system using existing peak hour traffic volumes in the surrounding area.

2. Future Condition – The future projected traffic volumes include the existing traffic volumes increased by a growth factor to account for regional traffic growth in the area and the traffic estimated to be generated by the proposed subject development.

The purpose of this study is as follows:

1. To examine existing vehicle, pedestrian, and bicycle traffic conditions to establish a base condition

2. Determine the vehicle trips to be generated by the proposed development and then determine its impact on the surrounding neighborhood street network

3. Recommend improvements to effectively mitigate and accommodate the projected traffic conditions resulting from the proposed development.

2.
Existing Conditions

Transportation conditions in the vicinity of the site were inventoried to obtain a basis for projecting future conditions. Four components of existing conditions were considered:

1. The geographic location of the site

2. The locations and availability of alternative modes of transportation, including public transportation, bicycle lanes, and pedestrian amenities

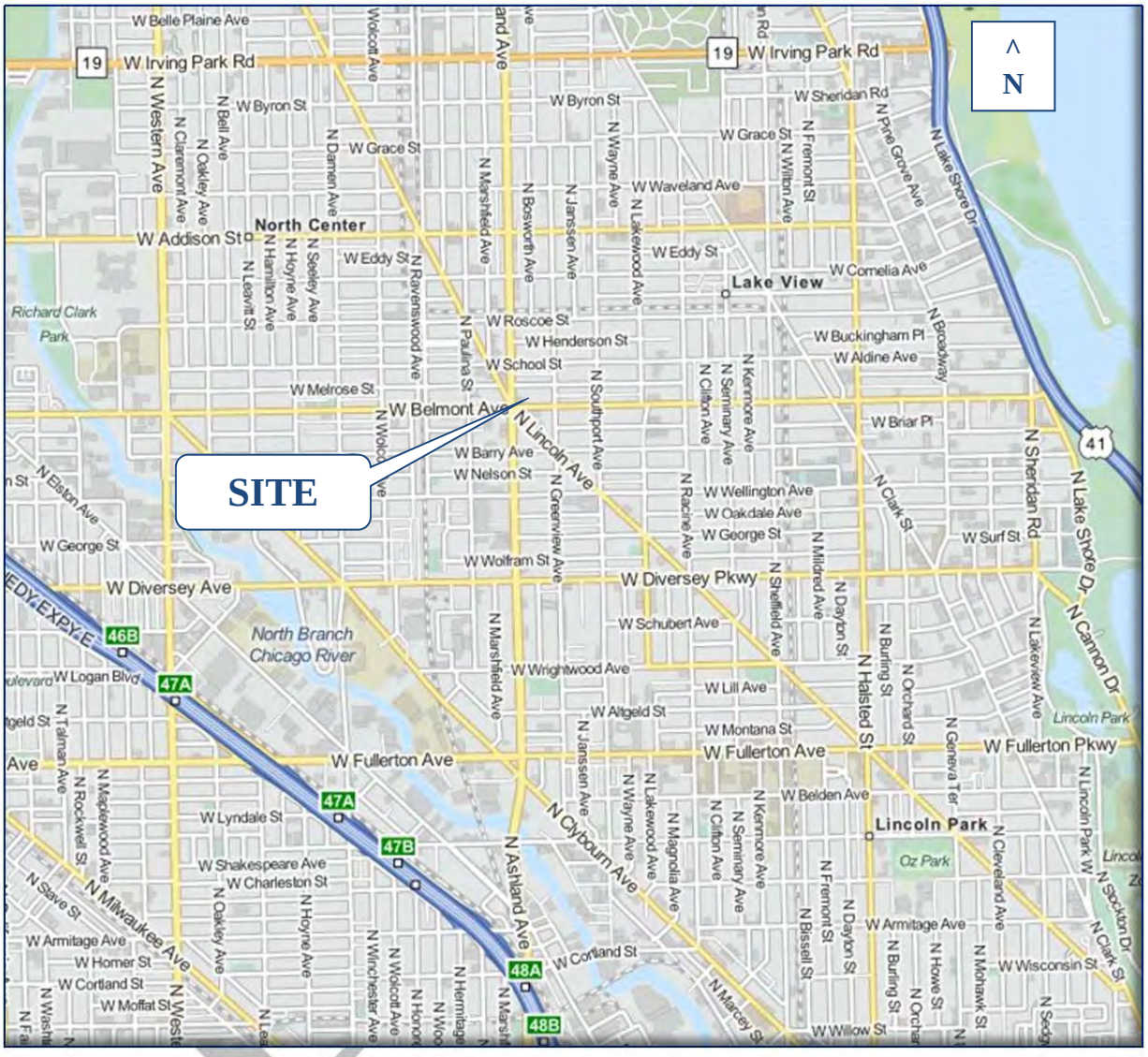
3. The characteristics of the adjacent street system, including lane geometry, traffic orientation (e.g. one-way street pairings) and intersection traffic controls

4. The weekday and Saturday midday peak-hour vehicle, bicycle, and pedestrian traffic volumes at the study intersections

Site Location

The development site is located in the northeast quadrant of the signalized intersection of Ashland/Belmont/Lincoln in the Lakeview neighborhood of Chicago, Illinois. The development is surrounded by residential units and commercial land uses. The site is bordered by Melrose Street to the north, Belmont Avenue to the south, Ashland Avenue to the west, and St. Luke Evangelical Lutheran Church to the east. The site is currently vacant.

Figure 1 shows the site location with respect to the surrounding street system. **Figure 2** shows an aerial view of the site area.



SITE LOCATION **Figure 1**

AERIAL VIEW OF SITE AREA **Figure 2**

Alternative Modes of Transportation

Accessibility to and from the area is enhanced by the various alternative modes of transportation serving the area as summarized below and illustrated in **Figure 3**.

Public Transportation. A description of the CTA elevated train systems within proximity of the site are outlined below.

- *CTA Brown Line* provides rapid transit rail service between Kimball Avenue and the downtown Chicago "Loop". Service is provided seven days a week and on holidays. The nearest station is approximately five blocks northwest of the site (Paulina/Roscoe station) and approximately six blocks east of the site (Belmont/Sheffield station).

- *CTA Red Line* provides rapid transit rail service between Howard Street to the north and 95th/Dan Ryan to the south. Service is provided seven days a week and on holidays. The nearest station is the Belmont/Sheffield station.

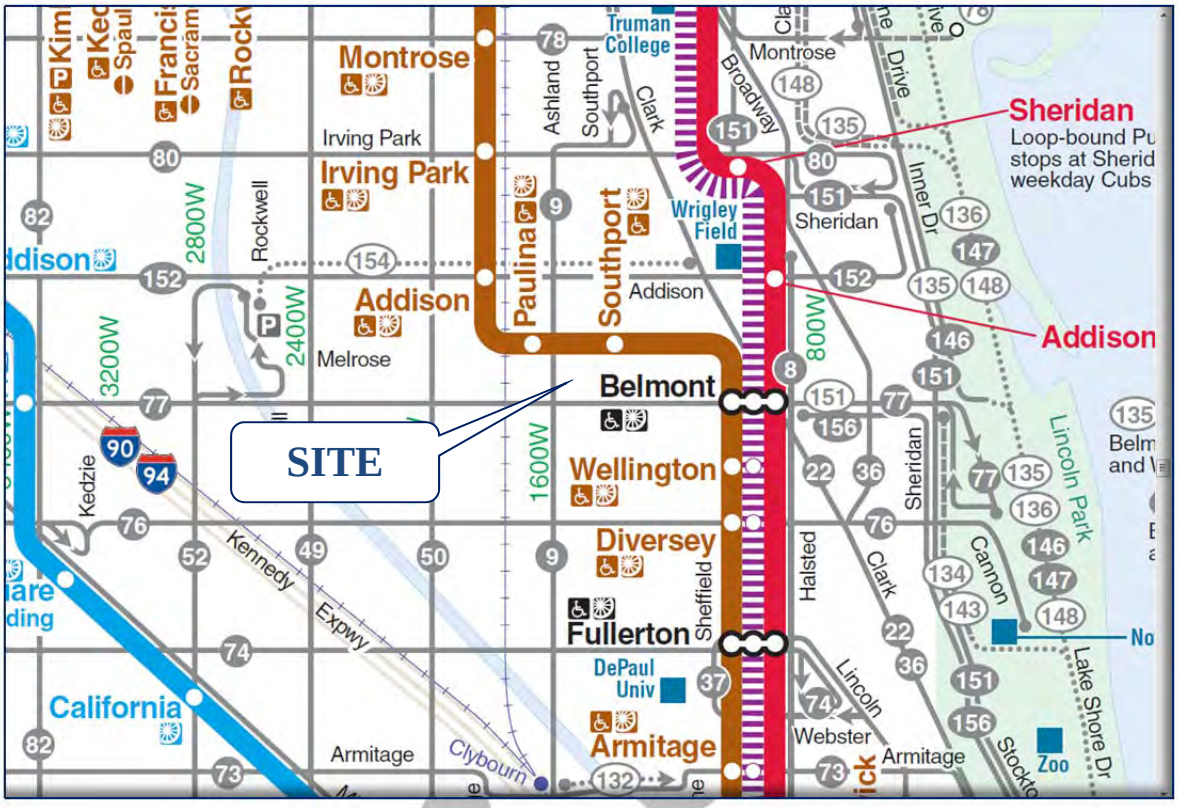
- *CTA Purple Line* provides rapid transit rail service between Linden Avenue in Evanston and the downtown Chicago "Loop." Service is provided seven days a week and on holidays. The nearest station is the Belmont/Sheffield station.

In addition, the following bus routes serve the immediate area and all have stops within walking distance of the site.

- *Route Number 9 – Ashland* operates between Irving Park Road and 103rd Street, with connections to the CTA Blue, Green, Red, and Orange lines. Service is provided seven days a week.

- *Route Number 77 – Belmont* operates between Cumberland to Sheridan Road with connections to the CTA Blue, Brown, Red, and Purple lines. Service is provided seven days a week.

Bicycle Routes. Lincoln Avenue is an established bicycle lane. No street within the study area is designated as a "pedestrian street" for planning or design purposes. Bicycles were present in the traffic counts of all of the intersections in the immediate vicinity of the site.



CTA Transit Map **Figure 3**

Pedestrian Facilities. All of the streets in the immediate area have sidewalks on both sides of the street. Traditional crosswalk markings are provided at the study area intersections. Countdown pedestrian traffic signals are not currently provided at the traffic signal intersections included in this study and are recommended in conjunction with this development.

Mode-sharing Facilities. There are numerous Divvy Bike Sharing Stations in proximity of the subject site, with the closest at the intersection of Lincoln Avenue and Belmont with 10 stations. Further, there are several Zipcar car sharing stations in proximity to the subject site

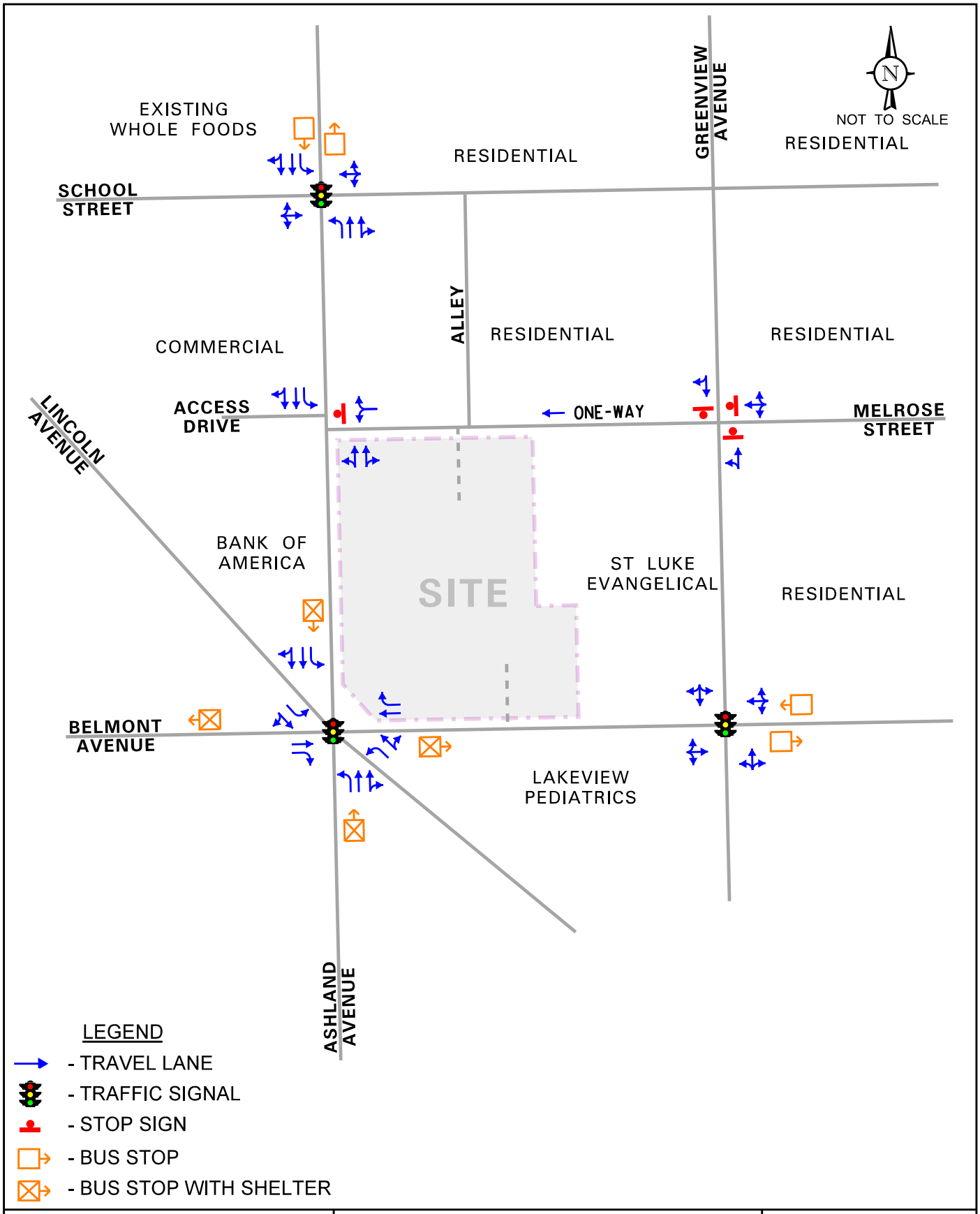
Existing Street System Characteristics

The characteristics of the existing streets that surround the proposed development are illustrated in **Figure 4** and described below. All of the streets are under the jurisdiction of the Chicago Department of Transportation (CDOT) and have a posted speed limit of 30 mph, unless otherwise stated.

Ashland Avenue is a north-south four-lane street with metered on-street parking permitted on both sides of the street. The street has a landscaped median south of Belmont Avenue and is signalized at its intersection with Belmont Avenue/Lincoln Avenue with left-turn lanes provided, and is signalized at its intersection with School Street. According to the Illinois Department of Transportation's (IDOT) website, the average daily traffic volume (ADT) is 34,000 vehicles.

Belmont Avenue is an east-west two-lane street with metered on-street parking on both sides of the street along the site frontage. On-street parking is prohibited along the frontage of St. Luke Church to the east. Further, on-street parking is restricted on the south side of Belmont Avenue on weekdays from 7:00 to 9:00 A.M. to provide a second eastbound through lane. Similarly, on-street parking is restricted on the north side of Belmont Avenue on weekdays from 4:00 to 6:00 P.M. to provide a second westbound through lane. On-street parking is prohibited on the north side of Belmont between Ashland Avenue and Greenview Avenue. Its intersection with Lincoln Avenue/Ashland Avenue is signalized where left-turn movements from Belmont Avenue are prohibited. Belmont Avenue is also signalized at Greenview Avenue. According to IDOT's website, Belmont Avenue has an ADT of 16,500 vehicles.

Lincoln Avenue is a two-way northwest-southeast arterial that generally provides one lane in each direction. On-street parking is generally permitted on both sides of the street. Left-turn lanes are provided at its signalized intersection with Belmont/Ashland. According to IDOT's website, Lincoln Avenue has an ADT of 12,400 vehicles.



PROJECT:	TITLE:	
Whole Foods Chicago, Illinois	Existing Street Characteristics	KLOA Job No: 14-190 Figure: 4

Melrose Street is an east-west local street that is under stop sign control at its intersections with Ashland Avenue and Greenview Avenue. East of Greenview Avenue, Melrose Street is restricted to one-way westbound traffic. Metered parking spaces are provided on both sides of the street between Ashland Avenue and the north-south alley. Permit parking is allowed on the north side of the street, east of the north-south alley. East of Greenview Avenue, permit parking is generally permitted on both sides of the street. Melrose has a speed limit of 25 mph.

Greenview Avenue is a two-way north-south local street that is signalized at its intersection with Belmont Avenue and is under all-way stop sign control at its intersection with Melrose Street. Parking is permitted on the east side of the street only with parking restricted along the frontage of St. Luke's. Greenview Avenue has a speed limit of 25 mph.

North-South Alley is a two-way public alley that extends north from its southern terminus at Melrose Street. The alley is effectively 11 feet wide, primarily providing access to residential garages.

Existing Traffic Volumes

Manual turning movement vehicle, pedestrian, and bicycle traffic counts were conducted during the weekday morning (7:00 to 9:00 A.M.), the weekday evening (4:00 to 8:00 P.M.), and Saturday midday (11:00 A.M. to 3:00 P.M.) peak periods at the following five intersections listed below.

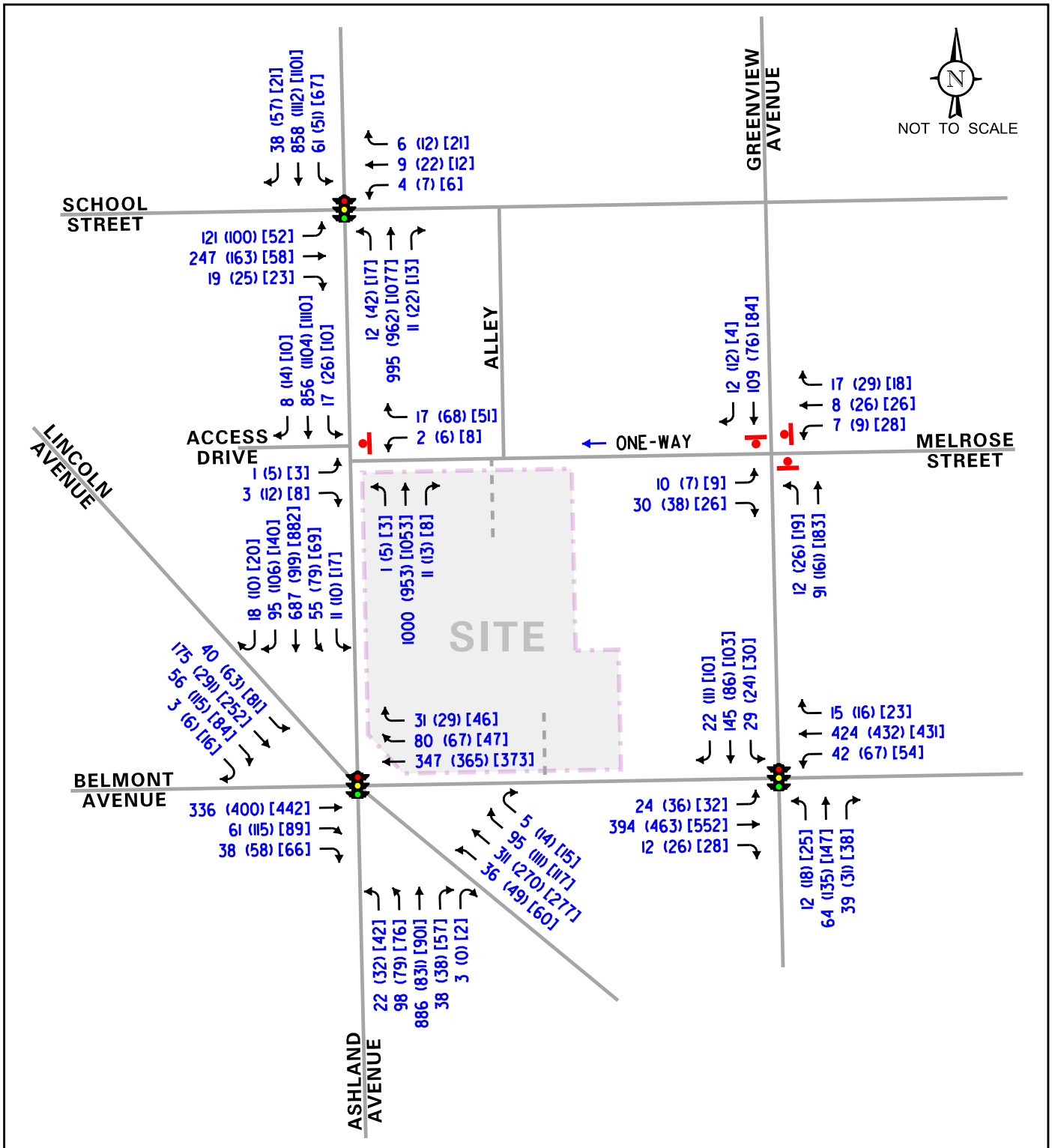
1. Ashland/Belmont/Lincoln (Thursday, August 21 and Saturday, August 23, 2014)
2. Melrose Street and Greenview Avenue (Thursday, August 21 and Saturday, August 23, 2014)
3. Ashland Avenue and Melrose Street/Access Drive (Tuesday, April 16 and Saturday, April 14, 2013)
4. Ashland Avenue and School Street ((Tuesday, April 16 and Saturday, April 14, 2013)
5. Greenview Avenue and Belmont Avenue (Tuesday, April 16 and Saturday, April 14, 2013)

The extended counts for the weekday evening and Saturday midday peak periods were to account for Chicago Cubs traffic (both vehicles and pedestrian movements) on a weekday when the Chicago Cubs had an evening home game, and on a Saturday when the Chicago Cubs had a midday home game.

From the manual turning movement count data, it was determined that the weekday morning peak hour generally occurs between 8:00 and 9:00 A.M., the weekday evening peak hour generally occurs between 5:00 and 6:00 P.M., and the Saturday midday peak hour generally occurs between 1:00 and 2:00 P.M. These three respective peak hours will be used for the traffic capacity analyses and are presented later in this report.

The existing peak hour vehicle traffic volumes are shown in **Figure 5**.

The existing peak hour pedestrian and bicycle traffic volumes are shown in **Figure 6**.



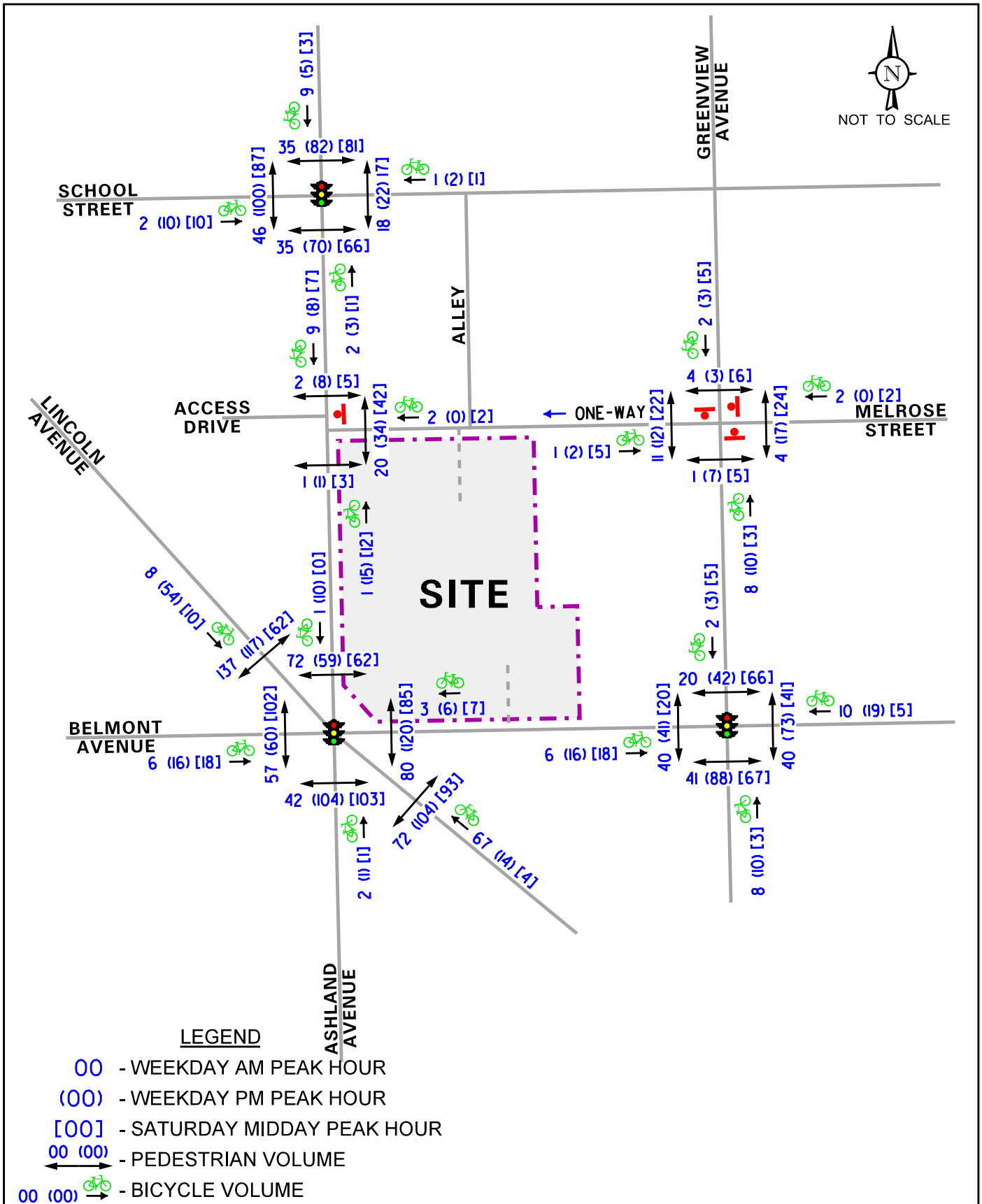
LEGEND

00 - WEEKDAY AM PEAK HOUR

(00) - WEEKDAY PM PEAK HOUR

[00] - SATURDAY MIDDAY PEAK HOUR

PROJECT:	TITLE:	KLOA
Whole Foods Chicago, Illinois	Existing Traffic Volumes	Job No: 14-190 Figure: 5



PROJECT:	TITLE:	
Whole Foods Chicago, Illinois	Existing Pedestrian and Bicycle Traffic Volumes	KLOA Job No: 14-190 Figure: 6

Existing Traffic Observations

Observations of existing traffic patterns in the area noted the following.

- Pedestrian volumes within the study area make vehicle turning movements difficult at the signalized intersections.

- The southbound queue on Ashland Avenue extends north of Melrose Street. This queue is typically cleared by the next green phase.

- Eastbound queuing on Belmont extends west of Paulina Street.

- The queuing on Belmont Avenue between Greenview Avenue and Ashland Avenue typically clears by the next green phase.

- The westbound queue on Belmont Avenue at Ashland Avenue frequently extends east of Greenview Avenue. Field observations further noted that the back of queue typically cleared the Ashland traffic signal after two to three green phases.

3.
Traffic Characteristics of the Proposed Development

To evaluate the impact of the subject development on the area street system, it was necessary to quantify the number of vehicle trips the overall site will generate during the weekday morning, weekday evening, and Saturday midday peak hours and then determine the directions from which this traffic will approach and depart the site.

Proposed Site and Development Plan

The development site is located in the northeast quadrant of the signalized intersection of Ashland/Belmont/Lincoln in the Lakeview neighborhood of Chicago, Illinois. The site is currently vacant.

The plans call for the site to include an approximate 70,000 square-foot Whole Foods Market. The store will be on the second floor of the building. The parking garage will be on the main and lower levels. Access to the garage is proposed from a full access drive on Melrose Street and a full access drive on Belmont Avenue.

Parking

The development will include a two-level, off-street parking garage with approximately 300 parking spaces. The garage will be located on the main level (street level) and the lower level.

Pedestrian Access to the Development

The primary pedestrian entry for the store will be from a customer lobby located in the southwest corner of the building.

Development Access

The development proposes two customer access points to serve the proposed parking garage, as described below.

Restricted Access and Belmont Avenue. This access will be located approximately 200 feet east of Ashland Avenue, and will be restricted to left-in, right-in, right-out only turning movements. The access drive will provide one lane inbound and one lane outbound under stop sign control. A "No Left Turn" sign will also be posted at the exit to enforce the restriction. No widening or traffic control improvements are needed or recommended on Belmont Avenue at this access drive. In order to accommodate eastbound to northbound left-turning movements into the garage from Belmont Avenue, it is recommended that approximately five Paybox parking spaces on the south side of Belmont Avenue, between the bus stop and the public alley, be removed. This will allow eastbound through vehicles to bypass a left-turning vehicle by using the curb lane.

Restricted Access and Melrose Street. This access will be restricted to right-in/left-in/left-out only turning movements. Right-out turning and through (to the alley) movements will not be allowed. The access will provide one lane inbound and one lane outbound and will be designed to physically channelize outbound/exiting vehicles to make a left-turn movement to travel westbound on Melrose Street to Ashland Avenue. The outbound lane will be under stop sign control. The access is slightly offset to the west of the existing north-south alley that T-intersects Melrose Street from the north. This offset, together with the recommended channelized design of the access drive, will deter vehicles from using the north-south alley to ingress/egress the development.

Truck Access

The truck loading area will be located in the southeast corner of the building, and will have a separate full access drive on Belmont Avenue, east of the customer garage drive access. Trucks will access the truck bay travelling to/from the east and to/from the west on Belmont Avenue. Truck turning diagrams showing the ingress and egress movements for a typical delivery truck are included in the Appendix of this report. The truck turning diagrams show that the design vehicle delivery truck can adequately maneuver to/from the proposed access drive and within the truck bay and will eliminate the need for trucks to back in and/or back out onto Belmont Avenue.

Proposed Improvements

In conjunction with this development, the following off-site improvements are proposed:

- Signalize the intersection of Melrose Street and Ashland Avenue and provide high visibility crosswalks and pedestrian countdown signals. The signal will include a southbound protected left-turn lagging phase.

- Convert Melrose Street to a one-way westbound operation between Greenview Avenue and the proposed access drive/north-south alley (maintaining two-way operations between Ashland Avenue and the proposed access drive/north-south alley)

- Remove approximately six Paybox parking spaces on Melrose Street between Ashland Avenue and the proposed access drive/north-south alley to provide one lane eastbound and two lanes westbound at its approach to Ashland Avenue, striped to provide a separate left-turn lane and a separate right-turn lane.

- Restripe Ashland Avenue between School Street and Belmont Avenue to provide a dedicated southbound left-turn lane at Melrose Street.

- Remove approximately five Paybox parking spaces on the south side of Belmont Avenue between the bus stop and the alley.

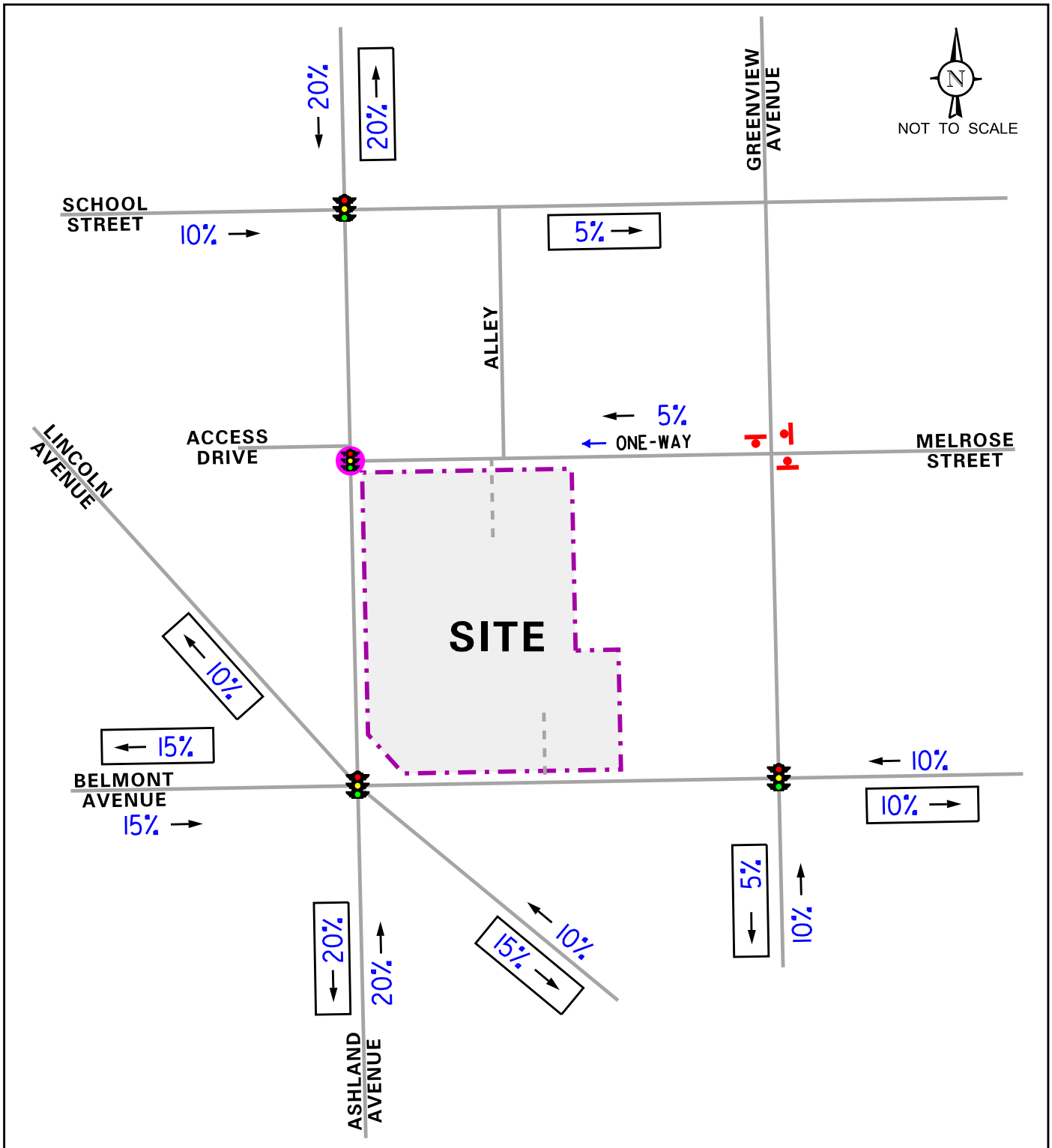
- Modify the Ashland/Belmont/Lincoln traffic signal to provide lagging protected left-turn phasing (left-turn arrow) for the northbound and southbound left-turn movements on Ashland Avenue

- Modify the cycle length at the Ashland/School intersection to run at a 100 second cycle, which matches the Belmont/Ashland/Lincoln intersection cycle length

Directional Distribution of Development Traffic

The directional distribution of how the proposed development traffic will approach and depart the site was estimated based on a combination of existing travel patterns and the orientation and physical restrictions of the surrounding street system. The directional distribution assumes the proposed one-way westbound orientation on Melrose Street between the proposed access drive and Greenview Avenue.

The estimated directional distribution for both inbound and outbound development-generated traffic is illustrated in **Figure 7**.



LEGEND

00% - INBOUND

(00) - OUTBOUND

- PROPOSED TRAFFIC SIGNAL

PROJECT:	TITLE:	
Whole Foods Chicago, Illinois	Estimated Directional Distribution	KLOA Job No: 14-190 Figure: 7

Development Traffic Generation

The estimates of vehicle traffic to be generated by the development are based upon the proposed land use type and size. The volume of traffic generated was estimated using data published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 9th Edition*. The estimates of vehicle traffic were further reduced by 20 percent to account for use of public transportation and for the pedestrian activity that will occur where patrons may walk to/from their homes to the Whole Foods Market. This is consistent with what the store currently experiences at its existing location.

Further, it is important to note that this trip generation does not consider pass-by vehicle trips, which are vehicles already on the surrounding street system and may patron the store while enroute to another destination (e.g. home to work or work to home). As such, not applying this trip reduction (up to 35 percent) provides for a further conservative study.

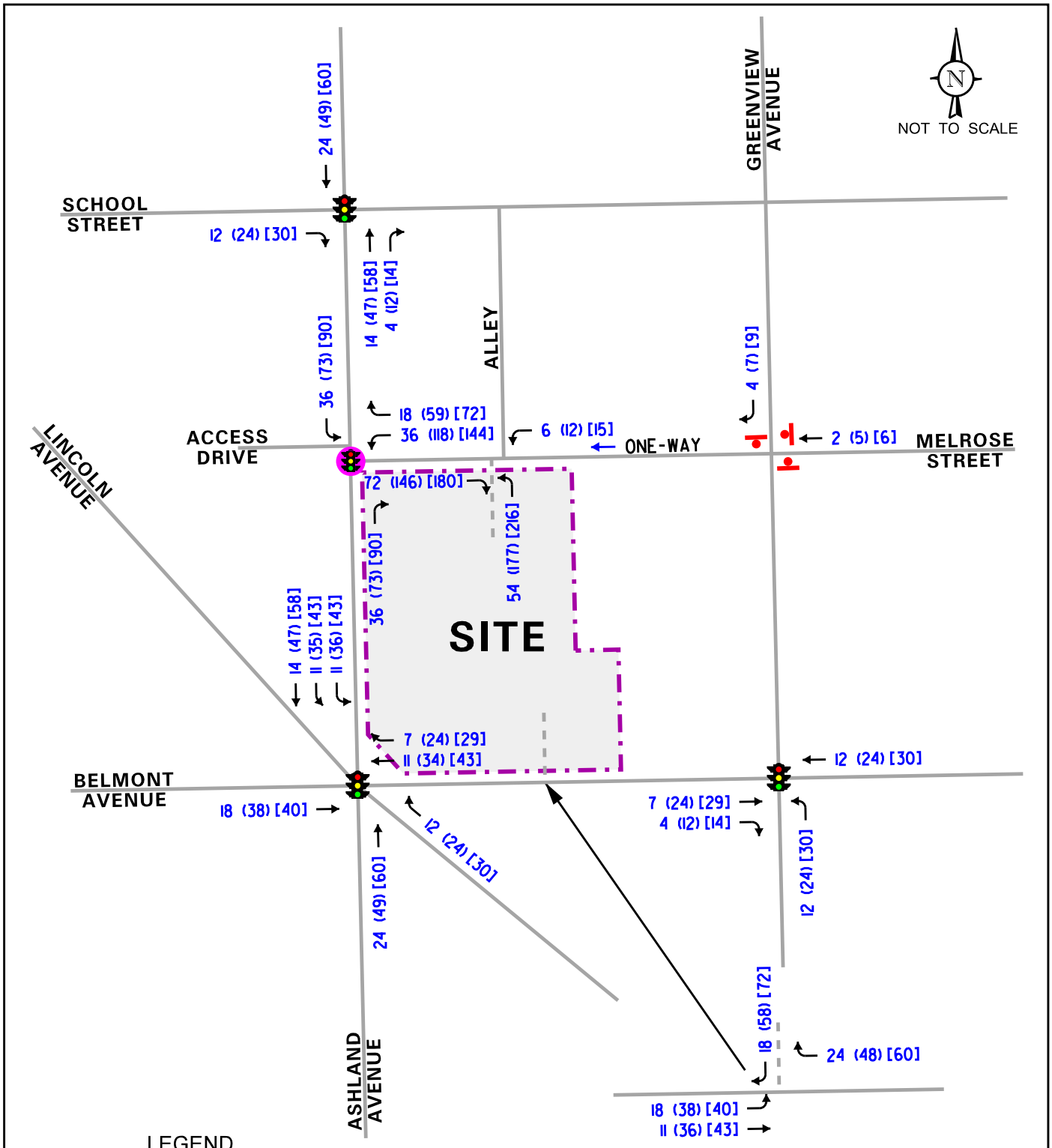
Table 1 tabulates the total trips anticipated from this proposed development for the weekday morning, weekday evening, and Saturday midday peak hours.

Table 1
ESTIMATED DEVELOPMENT TRAFFIC VOLUMES

	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
Land Use/Density	In	Out	In	Out	In	Out
Whole Foods Market – 70,000 s.f. (LUC 850)	150	90	305	295	375	360
Less 20% for Pedestrian Activity:	*-30*	*-18*	*-61*	*-60*	*-80*	*-72*
Total Net Development Trips:	**120**	**72**	**244**	**235**	**295**	**288**

Development Traffic Assignment

The peak hour traffic volumes projected to be generated by the proposed development (refer to Table 1) were assigned to the area streets based on the directional distribution analysis (Figure 7). **Figure 8** shows the assignment of the development-generated traffic volumes.



PROJECT:	TITLE:	
Whole Foods Chicago, Illinois	Development-Generated Traffic Volumes	KLOA Job No: 14-190 Figure: 8

4.
Total Projected Traffic Conditions

The total projected traffic volumes include the existing traffic volumes, traffic estimated to be generated by background developments in the area, and the traffic estimated to be generated by the proposed subject development.

Background Development Traffic

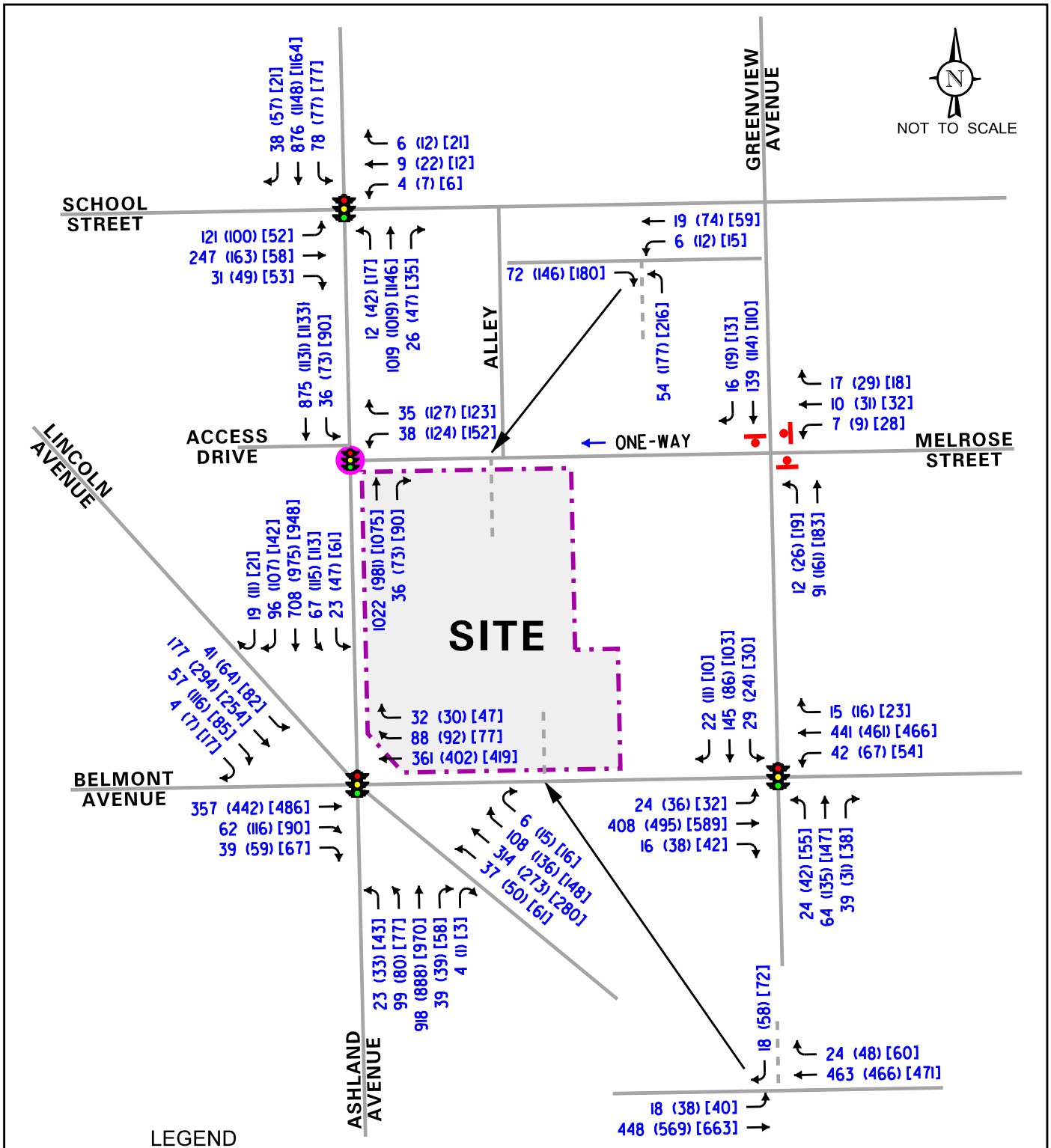
Background traffic includes regional growth in traffic, in addition to traffic from nearby developments.

The existing traffic volumes were increased by one percent to account for regional growth in traffic not attributable to any particular planned development for Year 2016 conditions (one-half percent per year)

The background traffic includes the traffic generated by the existing Whole Foods Market located in the northwest quadrant of the signalized intersection of Ashland Avenue and School Street. The traffic generated by this store was retained in the total projected traffic volumes to account for any future use that may occupy the existing space once Whole Foods relocates to the proposed development site. Further, the existing eastbound traffic volumes on Melrose Street coming from Ashland Avenue were reassigned to adjacent streets to account for the proposed improvement of converting Melrose Street to one-way westbound operations between Greenview Avenue and the proposed access drive/north-south alley.

Total Projected Traffic Volumes

Total projected traffic volumes include the existing traffic volumes, traffic estimated to be generated by background developments in the area and regional growth in traffic, and the traffic estimated to be generated by the proposed subject development (refer to Figure 8). **Figure 9** shows the total projected traffic volumes.



LEGEND

00 - WEEKDAY AM PEAK HOUR

(00) - WEEKDAY PM PEAK HOUR

[00] - SATURDAY MIDDAY PEAK HOUR

- PROPOSED TRAFFIC SIGNAL

PROJECT:	TITLE:	
Whole Foods Chicago, Illinois	Total Projected Traffic Volumes	KLOA Job No: 14-190 Figure: 9

5.
Traffic Analysis and Recommendations

Capacity analyses were performed for the key intersections included in the study area to determine the ability of the existing street system to accommodate existing and future traffic demands. Analyses were performed for the existing and total projected peak hour traffic conditions.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM), 2010* and using Synchro/SimTraffic software.

The analysis for the traffic-signal controlled intersections were accomplished using existing signal timing data provided by CDOT to determine the average overall vehicle delay, volume-to-capacity ratios, and levels of service.

The analyses for the unsignalized intersections determine the average control delay to vehicles at an intersection. Control delay is the elapsed time from a vehicle joining the queue at a stop sign (includes the time required to decelerate to a stop) until its departure from the stop sign and resumption of free flow speed. The methodology analyzes each intersection approach controlled by a stop sign and considers traffic volumes on all approaches and lane characteristics.

The ability of an intersection to accommodate traffic flow is expressed in terms of level of service, which is assigned a letter grade from A to F based on the average control delay experienced by vehicles passing through the intersection. Control delay is that portion of the total delay attributed to the traffic signal or stop sign control operation, and includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Level of Service A is the highest grade (best traffic flow and least delay), Level of Service E represents saturated or at-capacity conditions, and Level of Service F is the lowest grade (oversaturated conditions, extensive delays).

The *Highway Capacity Manual* definitions for levels of service and the corresponding control delay for both signalized and unsignalized intersections are shown in **Table 2**. A summary of the level of service/delay results for both existing and future conditions are presented in **Table 3** and **Table 4**, respectively. A summary of the queue lengths for the signalized intersections for the existing and future conditions are presented in Table A and Table B, respectively, and are located in the Appendix.

A discussion of the intersections and recommendations follows.

Table 2
LEVEL OF SERVICE CRITERIA

Unsignalized Intersections

Level of Service	Average Control Delay (seconds per vehicle)
A	0 - 10
B	> 10 - 15
C	> 15 – 25
D	> 25 – 35
E	> 35 – 50
F	> 50

Signalized Intersections

Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤ 10
B	Good progression, with more vehicles stopping than for Level of Service A.	> 10 - 20
C	Individual cycle failures (i.e. one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear. Number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	> 20 - 35
D	The volume-to-capacity ratio is high and either progression is ineffective or the cycle length is too long. Many vehicles stop and individual cycle failures are noticeable.	> 35 – 55
E	Progression is unfavorable. The volume-to-capacity ratio is high and the cycle length is long. Individual cycle failures are frequent.	> 55 – 80
F	The volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	> 80

Source: *Highway Capacity Manual, 2010*.

Table 3
CAPACITY ANALYSES RESULTS—EXISTING CONDITIONS

Intersection	Weekday A.M. Peak Hour LOS – Delay	Weekday P.M. Peak Hour LOS – Delay	Saturday Midday Peak Hour LOS – Delay
Belmont/Ashland/Lincoln (signal)	D – 42.4	E – 55.4	E – 57.8
Ashland Ave and School St (signal)	B – 16.2	B – 15.0	B – 13.8
Greenview Ave and Belmont Ave (signal)	B – 13.9	B – 12.8	B – 14.6
Ashland Ave and Melrose St (stop sign)	WBA: B – 10.0 SBL: A – 9.5	WBA: B – 10.3 SBL: A – 9.6	WBA: B – 10.5 SBL: A – 9.9
Greenview Ave and Melrose St (stop sign)	A – 7.7	A – 8.1	A – 8.3

LOS = Level of Service
Delay is measured in seconds.
LOS represents the intersection as a whole for signalized and all-way stop-controlled intersections.
WBA = Westbound approach.
SBL = Southbound left-turn movement.

Table 4
CAPACITY ANALYSES RESULTS—FUTURE CONDITIONS

Intersection	Weekday A.M. Peak Hour LOS – Delay	Weekday P.M. Peak Hour LOS – Delay	Saturday Midday Peak Hour LOS – Delay
Belmont/Ashland/Lincoln (signal)*	D – 42.8	E – 59.8	F – 76.2
Ashland Ave and School St (signal)	B – 17.5	B – 14.9	C – 22.4
Greenview Ave and Belmont Ave (signal)	B – 14.5	B – 15.2	B – 18.0
Ashland Ave and Melrose St (signal)	A – 4.0	B – 10.7	D – 42.8
Greenview Ave and Melrose St (stop sign)	A – 7.8	A – 8.2	A – 8.4
Access and Melrose St (stop sign)	NBL: A – 9.0	NBL: B – 10.2	NBL: B – 10.5
Access and Belmont Ave (stop sign)	SBR: B – 10.8	SBR: B – 10.7	SBR: B – 10.6

*Includes traffic signal modifications.
(00) – Without proposed traffic signal modifications.
LOS = Level of Service
Delay is measured in seconds.
LOS represents the intersection as a whole for signalized and all-way stop-controlled intersections.
NBL = Northbound left-turn movement.
SBR = Southbound right-turn movement.

Discussion and Recommendations

The results of the capacity analyses show that with the addition of the development traffic and the background developments in the area, all of the intersections are projected to continue to operate at generally the same levels of service. The following is a discussion of each analyzed intersection.

Belmont/Ashland/Lincoln

This six-leg intersection operates at an undesirable level of service during all three peak hours. The capacity analyses show queuing of vehicles from all approaches. Field observations have verified that there is queuing on all approaches during peak hour periods. Eastbound and westbound left-turn movements on Belmont Avenue are prohibited (via signage). The existing traffic signal does not have protected turning movements (green arrow) for any approach.

In conjunction with the proposed development, it is recommended to modify the traffic signal to provide lagging protected left-turn phasing for the northbound and southbound left-turn movements on Ashland Avenue. This protected left-turn lagging phase will help reduce the respective left-turning vehicle queue by providing them an exclusive/protected phase where all through vehicles and pedestrians are stopped. Based on CDOT's "Suggested Planning Guidelines for Separate Left-turn Phases (2010), providing a protected lagging phase for northbound and southbound left-turn movements on Ashland Avenue is both suggested and recommended.

The traffic simulation shows that the lagging left-turn phasing on Ashland Avenue helps to reduce the left-turning delay at the intersection, and therefore improves through movement operations.

This intersection has already been improved to include pedestrian countdown signals and high visibility (continental style) crosswalks on all approaches.

Ashland Avenue and School Street

This intersection will continue to operate at an acceptable level of service. As noted, the traffic from the existing Whole Foods Market located in the northwest quadrant of this intersection was included in the projected traffic volumes, thereby providing for a conservative analysis at this intersection. This intersection has already been improved to include pedestrian countdown signals and high visibility (continental style) crosswalks on all approaches. The signal cycle length should be increased from 85 seconds to 100 seconds to be consistent with the Belmont/Ashland/Lincoln traffic signal cycle length and the proposed signal at Melrose Street. No further traffic signal or street improvements are recommended at this intersection in conjunction with the proposed development.

Greenview Avenue and Belmont Avenue

This intersection will continue to operate at an acceptable level of service. The traffic simulation shows that the coordinated offsets of this traffic signal with the Ashland/Belmont/Lincoln traffic signal provide gaps in traffic between the two traffic signals. Any vehicle queuing is typically cleared by the next green phase. This intersection has already been improved to include pedestrian countdown signals and high visibility (continental style) crosswalks on all approaches. No traffic signal or street improvements are recommended at this intersection in conjunction with the proposed development.

Ashland Avenue and Melrose Street

Currently, Melrose Street T-intersects Ashland Avenue from the east and is under stop sign control. A full access access drive to a bank is located on the west side of Ashland Avenue, offset to the north of Melrose Street. Melrose Street provides one lane in each direction and a single-lane approach at its intersection with Ashland Avenue. In conjunction with this development, this intersection is proposed to be signalized and a southbound left-turn lane will be striped. The traffic signal will provide a southbound to eastbound left-turn protected lagging phase.

Because of the volume of traffic expected to traverse through this intersection during the peak hours upon buildout of the development, a traffic signal is needed and recommended to provide safe, protected passage for both traffic travelling on Melrose Street and site traffic desiring to exit the garage access on Melrose Street onto Ashland Avenue. The future conditions capacity analyses assume a traffic signal at this intersection with a crosswalk across Ashland Avenue on the north leg of the intersection. Limiting pedestrian movements helps improve traffic signal operations at this intersection in conjunction with the neighboring traffic signals to the north and to the south along Ashland Avenue.

The traffic capacity and traffic simultation results show that this intersection will operate at an overall acceptable level of service and will work in conjunction with the existing traffic signal at the Ashland/Belmont/Lincoln intersection to the south, and at the Ashland Avenue and School Street signalized intersection to the north. The traffic simulation shows that coordinating the three signals, via offsets and having all three signals operating the same cycle length (100 seconds) will provide southbound capacity on Ashland Avenue between the Ashland/Belmont/Lincoln intersection and the Ashland Avenue and Melrose Street intersection to accept exiting Melrose Street traffic onto southbound Ashland Avenue during its green phase.

As noted, a single lane approach is provided on Melrose Street at its intersection with Ashland Avenue. To provide additional capacity, it is recommended that the existing Paybox parking spaces on both sides of Melrose Street (approximately six parking spaces) be removed on Melrose Street between Ashland Avenue and the proposed access/north-south alley to allow for one lane eastbound and two lanes westbound striped to provide a left-turn lane and a right-turn lane.

The existing southbound left-turn lane on Ashland Avenue at its approach with Belmont Avenue currently extends north of Melrose Street. To accommodate the traffic signal and provide a separate southbound left-turn lane at Melrose Street, it is recommended that the existing left-turn lane be restriped to provide a separate southbound left-turn lane at its approach with Belmont Avenue and a separate southbound left-turn lane at its approach with Melrose Street. A proposed concept striping plan is provided in the Appendix of this report to illustrate this proposed recommendation. Although this recommended improvement results in reducing the storage length for the southbound left-turn movement at Belmont Avenue, the Ashland/Belmont/Lincoln traffic signal is proposed to be modified to provide a southbound left-turn protected lagging phase, which will be effective in reducing the southbound left-turn queue, particularly during peak hour periods. Further, providing a traffic signal at Melrose Street will effectively meter the traffic flows on Ashland Avenue, thereby effectively reducing the queues at Belmont Avenue and that providing two distinctly separate left-turn lanes via striping for the two respective intersections removes the existing trap of vehicles entering the southbound left-turn storage but having to stop to wait for a vehicle to make a left-turn at Melrose Street before proceeding to the Belmont Avenue approach.

Signal Warrants Study

This intersection was examined to determine if a traffic signal is warranted. Installation of a traffic signal requires that one or more of the nine (9) signal warrants outlined in the *Manual on Uniform Traffic Control Devices* (MUTCD 2009) is met. For the purposes of this study, Warrant 2 – Four Hour Volume and Warrant 3 – Peak Hour Volume, were examined. **Table 5** tabulates the peak hourly volumes exiting Melrose Street onto Ashland Avenue, and the peak hourly two-way volumes traversing Ashland Avenue.

Table 5
PEAK HOUR WARRANT VOLUMES
ASHLAND AVENUE/MELROSE STREET

Hour	Melrose Street	Ashland Avenue
Weekday AM (7:00 to 8:00 A.M.)	73	1,893
Weekday AM (8:00 to 9:00 A.M.)	73	1,969
Weekday PM (4:00 to 5:00 P.M.)	241	2,115
Weekday PM (5:00 to 6:00 P.M.)	251	2,258

The results of the signal warrant analyses for this intersection show that a traffic signal is warranted under Warrant 3 since the minimum volume thresholds are met to satisfy the respective warrant. The warrant figures are included in the Appendix of this report.

Recommended Improvements

In summary, the following improvements are recommended at the intersection of Ashland Avenue and Melrose Street.

- Signalize the intersection
- Provide a high-visibility crosswalk across the east and north legs
- Provide countdown pedestrian signal heads
- Restripe Ashland Avenue to provide a southbound left-turn lane
- Provide a lagging southbound left-turn phase on Ashland Avenue
- Remove Paybox parking spaces (approximately six parking spaces) on Melrose Street between Ashland Avenue and the north-south alley to provide one lane eastbound and two lanes westbound striped to provide a separate left-turn lane and a separate right-turn lane

Restricted Access and Belmont Avenue

This access will be located approximately 200 feet east of Ashland Avenue, and will be restricted to left-in, right-in, right-out only turning movements. The access drive will provide one lane inbound and one lane outbound under stop sign control. A "No Left Turn" sign will also be posted at the exit to enforce the restriction. No widening or traffic control improvements are needed or recommended on Belmont Avenue at this access drive. In order to accommodate eastbound to northbound left-turning movements into the garage from Belmont Avenue, it is recommended that approximately five Paybox parking spaces on the south side of Belmont Avenue, between the bus stop and the public alley, be removed. This will allow eastbound through vehicles to bypass a left-turning vehicle by using the curb lane.

Restricted Access and Melrose Street

This access will be restricted to right-in/left-in/left-out only turning movements. Right-out turning and through (to the alley) movements will not be allowed. The access will provide one lane inbound and one lane outbound and will be designed to physically channelize outbound/exiting vehicles to make a left-turn movement to travel westbound on Melrose Street to Ashland Avenue. The outbound lane will be under stop sign control. The access is slightly offset to the west of the existing north-south alley that T-intersects Melrose Street from the north. This offset, together with the recommended channelized design of the access drive and signage limiting outbound turning movements to left-turns only, will deter vehicles from using the north-south alley to ingress/egress the development.

Melrose Street

As noted and in conjunction with this development, it is proposed and recommended to modify Melrose Street to allow a one-way westbound only orientation between Greenview Avenue and the proposed access/north-south alley. Melrose Street will retain two-way traffic flow operations between Ashland Avenue and the proposed access/north-south alley. Further, landscape and signage improvements will be provided to deter eastbound vehicles from entering the opposing westbound only traffic flow. A concept plan illustrating this design is provided in the Appendix of this report.

Converting Melrose Street to a one-way westbound orientation for this segment of street is recommended for the following reasons:

- This proposed recommendation is an extension of an already one-way westbound orientation. Melrose Street is currently one-way westbound east of Greenview Avenue.

- Residents along Melrose Street will be provided with a safer exiting access onto Ashland Avenue via the proposed traffic signal.

- Limiting traffic flow to one-way westbound reduces traffic volumes along Melrose Street.

- Limiting traffic flow to one-way westbound allows the provision of the proposed Melrose Park.

- Emergency vehicles can still travel eastbound on Melrose Street, if necessary.

Parking

The development will include a two-level, off-street parking garage with approximately 300 parking spaces. The garage will be located on the main level (street level) and the lower level.

Pedestrian Access to the Development

The primary pedestrian entry for the store will be from a customer lobby located in the southwest corner of the building.

Truck Access

The truck loading area will be located in the southeast corner of the building, and will have a separate full access drive on Belmont Avenue, east of the customer garage drive access. Trucks will access the truck bay travelling to/from the east and to/from the west on Belmont Avenue. As noted, truck turning diagrams showing the ingress and egress movements for a typical delivery truck are included in the Appendix of this report. The truck turning diagrams show that the design vehicle delivery truck can adequately maneuver to/from the proposed access drive and within the truck bay and will eliminate the need for trucks to back in and/or back out onto Belmont Avenue. Consideration should be given to scheduling deliveries outside the street system peak hours (7:00 to 9:00 A.M. and 4:00 to 6:00 P.M.) to minimize the impact on area traffic and pedestrians.

6.
Conclusion

The proposed Whole Foods Market plans call for the redevelopment of the parcel located in the northeast quadrant of the Ashland/Belmont/Lincoln signalized intersection to provide an approximate 70,000 square foot store and 300 parking spaces. Access to the garage is proposed from a restricted access on Belmont Avenue and a restricted access on Melrose Street.

Based on the preceding analyses and recommendations, the following conclusions have been made.

- Accessibility to and from the development and surrounding area is enhanced by the various alternative modes of transportation serving the area, including bus transit and pedestrian and bicycle amenities.

- The amount of traffic generated by the proposed development will be reduced due to the alternative modes of transportation serving the area, including pedestrian activity.

- In order to facilitate improved traffic and pedestrian movements in the area, the following improvements are recommended to be implemented in conjunction with the proposed subject development.

    - Signalize the intersection of Melrose Street and Ashland Avenue and provide high visibility crosswalks and pedestrian countdown signals. The signal will include a southbound protected left-turn lagging phase.

    - Convert Melrose Street to a one-way westbound operation between Greenview Avenue and the proposed access drive/north-south alley (maintaining two-way operations between Ashland Avenue and the proposed access drive/north-south alley)

- Remove approximately six Paybox parking spaces on Melrose Street between Ashland Avenue and the proposed access drive/north-south alley to provide one lane eastbound and two lanes westbound at its approach to Ashland Avenue, striped to provide a separate left-turn lane and a separate right-turn lane.

- Restripe Ashland Avenue between School Street and Belmont Avenue to provide a dedicated southbound left-turn lane at Melrose Street.

- Remove approximately five Paybox parking spaces on the south side of Belmont Avenue between the bus stop and the alley.

- Modify the Ashland/Belmont/Lincoln traffic signal to provide lagging protected left-turn phasing (left-turn arrow) for the northbound and southbound left-turn movements on Ashland Avenue

- Modify the cycle length at the Ashland/School intersection to run at a 100 second cycle, which matches the Belmont/Ashland/Lincoln intersection cycle length

Appendix

RUSK & FL

LINCOLN AVENUE

ONE WAY

BURIED RAILROAD TRACK (TEMPORARILY EXPOSED AT THE TIME OF SURVEY)

PARKING ENTRY

ASHLAND AVENUE

LOBBY
1-100

TRASH BIN RECEPTACLE

5% SLOPE

10% SLOPE

LOADING DOCK
1-102

DN

UP

61 KEMNITZ AND WOLFF'S SUBDIVISION
RECORDED MARCH 5, 1884 AS DOCUMENT NUMBER 528963

62 59 58 57 56 55 54 60 61 91 92 93 94 90

N

ONE WAY

BELMONT AVENUE

EXISTING TWO WAY

44'

EXIST. BUS ZONE

PROP. NO PARKING

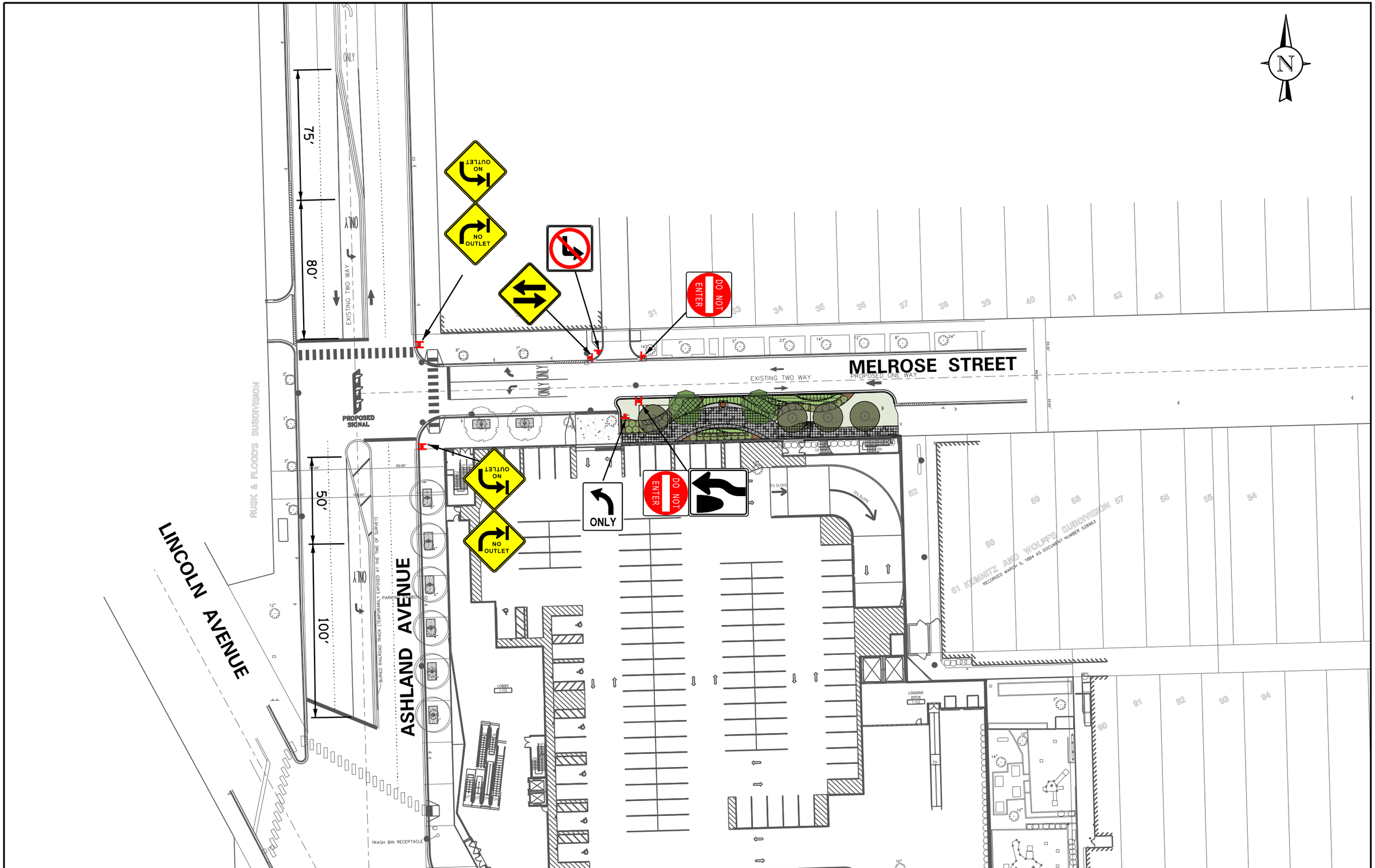
EXIST. NO PARKING

EXISTING SIGNAL

JOHN P. ALTGELD'S SUBDIVISION

LOSS OF 5 PARKING SPACES

KLOA Kenig,Lindgren,O'Hara,Aboona,Inc. 9575 West Higgins Road, Suite 400 Rosemont, Illinois 60018 P: (847) 518-9990 F: (847) 518-9987 PROJECT # 14-190	DESIGNED - MD DRAWN - MD CHECKED - LRA DATE - 07-20-2015	SCALE: 11x17 PRINT: 1" = 40'	WHOLE FOODS ASHLAND AND BELMONT CHICAGO, ILLINOIS	PROPOSED STREET MODIFICATIONS – BELMONT AVENUE	EXHIBIT NO. A



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PROJECT # 14-190

DESIGNED	-	MD
DRAWN	-	MD
CHECKED	-	LRA
DATE	-	07-21-2015

SCALE:
11x17 PRINT: 1" = 50'

WHOLE FOODS
ASHLAND AND BELMONT
CHICAGO, ILLINOIS

PROPOSED STREET MODIFICATIONS – MELROSE STREET

EXHIBIT NO.
B

Traffic Counts

Study Name	Ashland Belmont and Lincoln
Start Date	Thursday, August 21, 2014 7:00 AM
End Date	Saturday, August 23, 2014 3:15 PM
Site Code	

Report Summary

		Southbound								Westbound								Northwestbound									
Time Period	**Class.**	**HR**	**R**	**T**	**BL**	**L**	**U**	**I**	**O**	**R**	**BR**	**T**	**L**	**HL**	**U**	**I**	**O**	**HR**	**BR**	**T**	**BL**	**HL**	**U**	**I**	**O**	**HR**	**R**
Peak 1	Lights	18	86	634	51	7	0	796	980	28	75	317	0	0	0	420	387	5	92	282	33	0	0	412	278	3	34
Specified Period	%	100%	91%	92%	93%	64%	0%	92%	96%	90%	94%	91%	0%	0%	0%	92%	91%	100%	97%	91%	92%	0%	0%	92%	95%	100%	89%
7:00 AM - 9:00 AM	Buses	0	0	9	0	0	0	9	11	0	0	8	0	0	0	8	17	0	0	0	0	0	0	0	0	0	0
One Hour Peak	%	0%	0%	1%	0%	0%	0%	1%	1%	0%	0%	2%	0%	0%	0%	2%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8:00 AM - 9:00 AM	ıgle-Unit Truc	0	7	35	4	4	0	50	24	3	3	13	0	0	0	19	15	0	3	12	3	0	0	18	11	0	3
	%	0%	7%	5%	7%	36%	0%	6%	2%	10%	4%	4%	0%	0%	0%	4%	4%	0%	3%	4%	8%	0%	0%	4%	4%	0%	8%
	ticulated Truc	0	2	9	0	0	0	11	4	0	1	7	0	0	0	8	4	0	0	0	0	0	0	0	1	0	1
	%	0%	2%	1%	0%	0%	0%	1%	0%	0%	1%	2%	0%	0%	0%	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%
	icycles on Roa	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	0	0	0	17	0	0	0	17	3	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	0%	1%	0%	0%	0%	5%	0%	0%	0%	4%	1%	0%	0%
	Total	**18**	**95**	**687**	**55**	**11**	**0**	**866**	**1019**	**31**	**80**	**347**	**0**	**0**	**0**	**458**	**423**	**5**	**95**	**311**	**36**	**0**	**0**	**447**	**293**	**3**	**38**
	PHF	0.45	0.91	0.98	0.86	0.92	0	0.96	0.97	0.65	0.83	0.9	0	0	0	0.94	0.83	0.42	0.74	0.93	0.69	0	0	0.94	0.85	0.75	0.79
	Approach %							25%	29%							13%	12%							13%	8%		
Peak 2	Lights	10	105	904	78	10	0	1107	942	29	64	346	0	0	0	439	491	13	107	262	48	1	0	431	440	0	37
Specified Period	%	100%	99%	98%	99%	100%	0%	98%	96%	100%	96%	95%	0%	0%	0%	95%	95%	93%	96%	97%	100%	100%	0%	97%	91%	0%	97%
4:00 PM - 8:15 PM	Buses	0	0	7	0	0	0	7	6	0	0	12	0	0	0	12	14	0	0	0	0	0	0	0	0	0	0
One Hour Peak	%	0%	0%	1%	0%	0%	0%	1%	1%	0%	0%	3%	0%	0%	0%	3%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
5:15 PM - 6:15 PM	ıgle-Unit Truc	0	0	7	1	0	0	8	26	0	0	1	0	0	0	1	9	1	2	1	0	0	0	4	8	0	1
	%	0%	0%	1%	1%	0%	0%	1%	3%	0%	0%	0%	0%	0%	0%	0%	2%	7%	2%	0%	0%	0%	0%	1%	2%	0%	3%
	ticulated Truc	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	icycles on Roa	0	1	1	0	0	0	2	4	0	3	6	0	0	0	9	4	0	2	7	0	0	0	9	37	0	0
	%	0%	1%	0%	0%	0%	0%	0%	0%	0%	4%	2%	0%	0%	0%	2%	1%	0%	2%	3%	0%	0%	0%	2%	8%	0%	0%
	Total	**10**	**106**	**919**	**79**	**10**	**0**	**1124**	**981**	**29**	**67**	**365**	**0**	**0**	**0**	**461**	**518**	**14**	**111**	**270**	**48**	**1**	**0**	**444**	**485**	**0**	**38**
	PHF	0.42	0.91	0.97	0.82	0.62	0	0.98	0.87	0.66	0.93	0.96	0	0	0	0.98	0.96	0.58	0.92	0.91	0.86	0.25	0	0.98	0.93	0	0.63
	Approach %							28%	24%							11%	13%							11%	12%		

Northbound						Eastbound						Southeastbound										Crosswalk		
T	BL	L	U	I	O	R	BR	T	L	HL	U	I	O	HR	BR	T	BL	HL	U	I	O	Total		destria	Total
853	97	21	0	1008	727	37	60	307	2	0	0	406	460	3	56	164	34	5	0	262	472	3304	N	52	52
96%	99%	95%	0%	96%	93%	97%	98%	92%	100%	0%	0%	93%	91%	100%	100%	94%	97%	100%	0%	96%	93%	94%		100%	
11	1	0	0	12	9	0	0	17	0	0	0	17	8	0	0	0	0	0	0	0	1	46	E	51	51
1%	1%	0%	0%	1%	1%	0%	0%	5%	0%	0%	0%	4%	2%	0%	0%	0%	0%	0%	0%	0%	0%	1%		100%	
18	0	1	0	22	36	1	1	7	0	0	0	9	24	0	0	6	1	0	0	7	15	125	SE	20	20
2%	0%	5%	0%	2%	5%	3%	2%	2%	0%	0%	0%	2%	5%	0%	0%	3%	3%	0%	0%	3%	3%	4%		100%	
4	0	0	0	5	9	0	0	3	0	0	0	3	9	0	0	1	0	0	0	1	1	28	S	28	28
0%	0%	0%	0%	0%	1%	0%	0%	1%	0%	0%	0%	1%	2%	0%	0%	1%	0%	0%	0%	0%	0%	1%		100%	
0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	3	0	0	0	3	18	23	W	3	3
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	1%	4%	1%		100%	
886	**98**	**22**	**0**	**1047**	**781**	**38**	**61**	**334**	**2**	**0**	**0**	**435**	**503**	**3**	**56**	**174**	**35**	**5**	**0**	**273**	**507**	**3526**	NW	16	16
0.96	0.84	0.69	0	0.96	0.97	0.86	0.69	0.8	0.25	0	0	0.82	0.98	0.75	0.74	0.85	0.67	0.62	0	0.91	0.9	0.98		100%	
				30%	22%							12%	14%							8%	14%			**170**	**170**
797	79	31	0	944	1075	56	110	380	3	0	0	549	535	5	114	252	51	6	0	428	415	3898	N	110	110
96%	100%	97%	0%	96%	98%	97%	96%	95%	100%	0%	0%	95%	96%	83%	99%	87%	91%	86%	0%	90%	97%	96%		100%	
6	0	0	0	6	7	0	0	14	0	0	0	14	12	0	0	0	0	0	0	0	0	39	E	147	147
1%	0%	0%	0%	1%	1%	0%	0%	4%	0%	0%	0%	2%	2%	0%	0%	0%	0%	0%	0%	0%	0%	1%		100%	
24	0	0	0	25	10	2	2	4	0	0	0	8	2	1	1	5	3	0	0	10	1	56	SE	67	67
3%	0%	0%	0%	3%	1%	3%	2%	1%	0%	0%	0%	1%	0%	17%	1%	2%	5%	0%	0%	2%	0%	1%		100%	
3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	S	70	70
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
1	0	1	0	2	1	0	3	2	0	0	0	5	8	0	0	34	2	1	0	37	10	64	W	13	13
0%	0%	3%	0%	0%	0%	0%	3%	1%	0%	0%	0%	1%	1%	0%	0%	12%	4%	14%	0%	8%	2%	2%		100%	
831	**79**	**32**	**0**	**980**	**1093**	**58**	**115**	**400**	**3**	**0**	**0**	**576**	**557**	**6**	**115**	**291**	**56**	**7**	**0**	**475**	**426**	**4060**	NW	20	20
0.86	0.76	0.53	0	0.9	0.98	0.69	0.82	0.95	0.75	0	0	0.92	0.95	0.38	0.9	0.91	0.88	0.58	0	0.95	0.93	0.96		100%	
				24%	27%							14%	14%							12%	10%			**427**	**427**

Study Name	Ashland Belmont and Lincoln
Start Date	Thursday, August 21, 2014 7:00 AM
End Date	Saturday, August 23, 2014 3:15 PM
Site Code	

Report Summary

		Southbound								Westbound								Northwestbound									
Time Period	**Class.**	**HR**	**R**	**T**	**BL**	**L**	**U**	**I**	**O**	**R**	**BR**	**T**	**L**	**HL**	**U**	**I**	**O**	**HR**	**BR**	**T**	**BL**	**HL**	**U**	**I**	**O**	**HR**	**R**
Peak 1	Lights	15	135	838	71	23	0	1082	1116	55	49	328	0	0	0	432	554	16	121	225	46	0	0	408	378	2	43
Specified Period	%	88%	99%	97%	99%	100%	0%	97%	98%	96%	96%	94%	0%	0%	0%	95%	96%	100%	99%	88%	98%	0%	0%	92%	93%	67%	98%
11:00 AM - 12:00 PM	Buses	0	0	10	0	0	0	10	6	0	0	7	0	0	0	7	6	0	0	0	0	0	0	0	1	0	0
One Hour Peak	%	0%	0%	1%	0%	0%	0%	1%	1%	0%	0%	2%	0%	0%	0%	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11:00 AM - 12:00 PM	ıgle-Unit Truc	1	1	13	1	0	0	16	17	1	2	1	0	0	0	4	5	0	1	1	0	0	0	2	6	0	1
	%	6%	1%	2%	1%	0%	0%	1%	1%	2%	4%	0%	0%	0%	0%	1%	1%	0%	1%	0%	0%	0%	0%	0%	1%	0%	2%
	ticulated Truc	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	icycles on Roa	1	0	4	0	0	0	5	3	1	0	13	0	0	0	14	12	0	0	31	1	0	0	32	23	1	0
	%	6%	0%	0%	0%	0%	0%	0%	0%	2%	0%	4%	0%	0%	0%	3%	2%	0%	0%	12%	2%	0%	0%	7%	6%	33%	0%
	Total	**17**	**136**	**866**	**72**	**23**	**0**	**1114**	**1142**	**57**	**51**	**349**	**0**	**0**	**0**	**457**	**577**	**16**	**122**	**257**	**47**	**0**	**0**	**442**	**408**	**3**	**44**
	PHF	0.71	0.74	0.95	0.95	0.82	0	0.96	0.97	0.75	0.71	0.92	0	0	0	0.94	0.93	0.57	0.87	0.89	0.84	0	0	0.95	0.95	0.38	0.79
	Approach %							27%	28%							11%	14%							11%	10%		
Peak 2	Lights	20	137	855	69	17	0	1098	1047	45	46	351	0	0	0	442	583	15	114	248	53	0	0	430	390	2	56
Specified Period	%	100%	98%	97%	100%	100%	0%	97%	97%	98%	98%	94%	0%	0%	0%	95%	96%	100%	97%	90%	88%	0%	0%	92%	92%	100%	98%
12:00 PM - 3:15 PM	Buses	0	1	12	0	0	0	13	7	0	1	7	0	0	0	8	6	0	0	0	0	0	0	0	1	0	0
One Hour Peak	%	0%	1%	1%	0%	0%	0%	1%	1%	0%	2%	2%	0%	0%	0%	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1:00 PM - 2:00 PM	ıgle-Unit Truc	0	2	9	0	0	0	11	23	0	0	2	0	0	0	2	7	0	2	2	6	0	0	10	2	0	1
	%	0%	1%	1%	0%	0%	0%	1%	2%	0%	0%	1%	0%	0%	0%	0%	1%	0%	2%	1%	10%	0%	0%	2%	0%	0%	2%
	ticulated Truc	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	icycles on Roa	0	0	4	0	0	0	4	3	1	0	13	0	0	0	14	8	0	1	27	1	0	0	29	33	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	3%	0%	0%	0%	3%	1%	0%	1%	10%	2%	0%	0%	6%	8%	0%	0%
	Total	**20**	**140**	**882**	**69**	**17**	**0**	**1128**	**1080**	**46**	**47**	**373**	**0**	**0**	**0**	**466**	**605**	**15**	**117**	**277**	**60**	**0**	**0**	**469**	**426**	**2**	**57**
	PHF	0.45	0.85	0.98	0.72	0.42	0	0.98	0.98	0.82	0.9	0.95	0	0	0	0.97	0.92	0.75	0.81	0.85	0.88	0	0	0.95	0.89	0.5	0.89
	Approach %							27%	26%							11%	14%							11%	10%		

Northbound						Eastbound						Southeastbound											Crosswalk	
T	BL	L	U	I	O	R	BR	T	L	HL	U	I	O	HR	BR	T	BL	HL	U	I	O	Total		destria	Total
923	71	40	0	1079	977	62	78	409	3	0	0	552	565	16	77	227	63	14	0	397	360	3950	N	128	128
98%	100%	100%	0%	98%	96%	98%	96%	96%	100%	0%	0%	96%	96%	100%	92%	90%	95%	93%	0%	92%	91%	96%		100%	
6	0	0	0	6	10	0	0	6	0	0	0	6	7	0	0	1	0	0	0	1	0	30	E	141	141
1%	0%	0%	0%	1%	1%	0%	0%	1%	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%		100%	
15	0	0	0	16	17	1	1	3	0	0	0	5	2	0	3	4	1	0	0	8	4	51	SE	90	90
2%	0%	0%	0%	1%	2%	2%	1%	1%	0%	0%	0%	1%	0%	0%	4%	2%	2%	0%	0%	2%	1%	1%		100%	
0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	S	89	89
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
1	0	0	0	2	8	0	2	10	0	0	0	12	14	0	4	20	2	1	0	27	32	92	W	31	31
0%	0%	0%	0%	0%	1%	0%	2%	2%	0%	0%	0%	2%	2%	0%	5%	8%	3%	7%	0%	6%	8%	2%		100%	
945	**71**	**40**	**0**	**1103**	**1013**	**63**	**81**	**428**	**3**	**0**	**0**	**575**	**588**	**16**	**84**	**252**	**66**	**15**	**0**	**433**	**396**	**4124**	NW	35	35
0.96	0.66	0.67	0	0.97	0.93	0.79	0.78	0.97	0.38	0	0	0.93	0.95	0.67	0.64	0.97	0.87	0.75	0	0.89	0.93	0.96		100%	
				27%	25%							14%	14%							10%	10%			**514**	**514**
872	73	41	0	1044	1005	65	88	422	2	0	0	577	596	14	85	231	73	14	0	417	387	4008	N	120	120
97%	96%	98%	0%	97%	97%	98%	99%	96%	100%	0%	0%	96%	95%	93%	93%	87%	97%	100%	0%	90%	92%	95%		100%	
7	1	0	0	8	13	0	0	6	0	0	0	6	8	0	1	1	0	0	0	2	2	37	E	140	140
1%	1%	0%	0%	1%	1%	0%	0%	1%	0%	0%	0%	1%	1%	0%	1%	0%	0%	0%	0%	0%	0%	1%		100%	
21	2	1	0	25	15	1	0	6	0	0	0	7	11	0	5	2	0	0	0	7	4	62	SE	102	102
2%	3%	2%	0%	2%	1%	2%	0%	1%	0%	0%	0%	1%	2%	0%	5%	1%	0%	0%	0%	2%	1%	1%		100%	
0	0	0	0	0	2	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	3	S	109	109
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
1	0	0	0	1	4	0	1	6	0	0	0	7	15	1	0	32	2	0	0	35	27	90	W	28	28
0%	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	0%	1%	2%	7%	0%	12%	3%	0%	0%	8%	6%	2%		100%	
901	**76**	**42**	**0**	**1078**	**1039**	**66**	**89**	**441**	**2**	**0**	**0**	**598**	**630**	**15**	**91**	**266**	**75**	**14**	**0**	**461**	**420**	**4200**	NW	39	39
0.98	0.83	0.88	0	0.98	0.98	0.75	0.77	0.93	0.5	0	0	0.94	0.96	0.62	0.84	0.94	0.89	0.58	0	0.95	0.85	0.98		100%	
				26%	25%							14%	15%							11%	10%			**538**	**538**

Chicago, IL Weather: Cloudy and Cool 11/12/12
Ashland Ave and Melrose St 12:27:53
Thursday November 8, 2012

TURNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - by Mvmt

Intersection # 5 ashland/melrose

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
700	0	233	4	2	0	2	3	169	0	0	0	0	413
715	0	253	4	6	0	0	2	208	0	0	0	0	473
730	0	276	4	4	0	1	5	220	0	0	0	0	510
745	0	231	8	6	0	1	0	199	0	0	0	0	445
800	0	267	2	5	0	0	1	231	0	0	0	0	506
815	0	280	3	2	0	0	5	219	0	0	0	0	509
830	0	192	5	12	0	0	3	187	0	0	0	0	399
845	0	272	7	1	0	2	4	165	0	0	0	0	451
1600	0	225	5	13	0	0	4	199	0	0	0	0	446
1615	0	230	5	13	0	2	5	199	0	0	0	0	454
1630	0	221	2	19	0	2	1	217	0	0	0	0	462
1645	0	239	7	13	0	1	8	208	0	0	0	0	476
1700	0	236	12	17	0	2	1	213	0	0	0	0	481
1715	0	216	5	19	0	1	3	245	0	0	0	0	489
1730	0	245	6	10	0	0	2	258	0	0	0	0	521
1745	0	231	5	15	0	1	5	244	0	0	0	0	501
1800	0	230	6	17	0	3	3	228	0	0	0	0	487
1815	0	259	6	10	0	1	3	242	0	0	0	0	521
Total	0	4336	96	184	0	19	58	3851	0	0	0	0	8544

Chicago, IL Weather: Cloudy and Cool 11/12/12
Ashland Ave and Melrose St 12:27:53
Thursday November 8, 2012

TURNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: by Movement

Intersection # 5 ashland/melrose

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
700	0	993	20	18	0	4	10	796	0	0	0	0	1841
715	0	1027	18	21	0	2	8	858	0	0	0	0	1934
730	0	1054	17	17	0	2	11	869	0	0	0	0	1970
745	0	970	18	25	0	1	9	836	0	0	0	0	1859
800	0	1011	17	20	0	2	13	802	0	0	0	0	1865
815	0	744	15	15	0	2	12	571	0	0	0	0	1359*
830	0	464	12	13	0	2	7	352	0	0	0	0	850*
845	0	272	7	1	0	2	4	165	0	0	0	0	451*
1600	0	915	19	58	0	5	18	823	0	0	0	0	1838
1615	0	926	26	62	0	7	15	837	0	0	0	0	1873
1630	0	912	26	68	0	6	13	883	0	0	0	0	1908
1645	0	936	30	59	0	4	14	924	0	0	0	0	1967
1700	0	928	28	61	0	4	11	960	0	0	0	0	1992
1715	0	922	22	61	0	5	13	975	0	0	0	0	1998
1730	0	965	23	52	0	5	13	972	0	0	0	0	2030
1745	0	720	17	42	0	5	11	714	0	0	0	0	1509*
1800	0	489	12	27	0	4	6	470	0	0	0	0	1008*
1815	0	259	6	10	0	1	3	242	0	0	0	0	521*

Chicago, IL Weather: Cool and Dry 11/13/12
Ashland Ave and Melrose St 12:20:15
Saturday November 10, 2012

TURNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - by Mvmt

Intersection # 10 ashland/melrose/sat

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
1200	0	219	3	10	0	3	2	181	0	0	0	0	418
1215	0	213	2	14	0	1	3	192	0	0	0	0	425
1230	0	205	2	17	0	2	3	187	0	0	0	0	416
1245	0	208	3	10	0	2	3	216	0	0	0	0	442
1300	0	205	2	12	0	2	0	218	0	0	0	0	439
1315	0	216	3	12	0	2	2	188	0	0	0	0	423
1330	0	216	1	19	0	2	2	216	0	0	0	0	456
1345	0	226	4	12	0	4	2	219	0	0	0	0	467
1400	0	235	7	12	0	1	3	206	0	0	0	0	464
1415	0	238	5	10	0	1	4	222	0	0	0	0	480
Total	0	2181	32	128	0	20	24	2045	0	0	0	0	4430

TURNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - Totals

Intersection # 10 ashland/melrose/sat

Begin	Approach Totals				Exit Totals				Int
Time	N	E	S	W	N	E	S	W	Total
1200	222	13	183	0	191	5	222	0	418
1215	215	15	195	0	206	5	214	0	425
1230	207	19	190	0	204	5	207	0	416
1245	211	12	219	0	226	6	210	0	442
1300	207	14	218	0	230	2	207	0	439
1315	219	14	190	0	200	5	218	0	423
1330	217	21	218	0	235	3	218	0	456
1345	230	16	221	0	231	6	230	0	467
1400	242	13	209	0	218	10	236	0	464
1415	243	11	226	0	232	9	239	0	480
Total	2213	148	2069	0	2173	56	2201	0	4430

Chicago, IL Weather: Cool and Dry 11/13/12
Ashland Ave and Melrose St 12:20:15
Saturday November 10, 2012

TURNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: by Movement

Intersection # 10 ashland/melrose/sat

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
1200	0	845	10	51	0	8	11	776	0	0	0	0	1701
1215	0	831	9	53	0	7	9	813	0	0	0	0	1722
1230	0	834	10	51	0	8	8	809	0	0	0	0	1720
1245	0	845	9	53	0	8	7	838	0	0	0	0	1760
1300	0	863	10	55	0	10	6	841	0	0	0	0	1785
1315	0	893	15	55	0	9	9	829	0	0	0	0	1810
1330	0	915	17	53	0	8	11	863	0	0	0	0	1867
1345	0	699	16	34	0	6	9	647	0	0	0	0	1411*
1400	0	473	12	22	0	2	7	428	0	0	0	0	944*
1415	0	238	5	10	0	1	4	222	0	0	0	0	480*

TURNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: Appr/Exit Totals

Intersection # 10 ashland/melrose/sat

Begin	Approach Totals				Exit Totals				Int
Time	N	E	S	W	N	E	S	W	Total
1200	855	59	787	0	827	21	853	0	1701
1215	840	60	822	0	866	18	838	0	1722
1230	844	59	817	0	860	18	842	0	1720
1245	854	61	845	0	891	16	853	0	1760
1300	873	65	847	0	896	16	873	0	1785
1315	908	64	838	0	884	24	902	0	1810
1330	932	61	874	0	916	28	923	0	1867
1345	715	40	656	0	681	25	705	0	1411*
1400	485	24	435	0	450	19	475	0	944*
1415	243	11	226	0	232	9	239	0	480*

Chicago, IL Weather: Cloudy and Cool 11/12/12
Ashland Ave and School St 12:08:34
Thursday November 8, 2012

TURNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - by Mvmt

Intersection # 11 ashland/school

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
700	5	0	5	3	3	1	2	0	3	3	21	10	56
715	6	0	12	0	1	3	1	0	2	5	37	30	97
730	4	0	17	2	3	0	3	0	2	2	51	25	109
745	9	0	15	0	2	0	2	0	4	3	75	46	156
800	7	0	11	2	4	3	3	0	4	3	60	27	124
815	18	0	18	2	0	1	3	0	2	11	61	23	139
830	8	0	8	1	2	0	3	0	6	3	56	18	105
845	12	0	19	3	2	2	2	0	5	9	40	22	116
1600	18	0	10	3	4	1	3	0	9	5	28	30	111
1615	15	0	18	2	5	2	7	0	11	9	62	46	177
1630	16	0	16	4	9	0	4	0	10	4	27	54	144
1645	15	0	12	1	4	1	3	0	6	6	39	4	91
1700	13	0	12	5	2	4	9	0	12	5	49	18	129
1715	13	0	11	2	7	2	6	0	14	10	48	24	137
1730	10	0	14	1	5	0	5	0	9	2	46	32	124
1745	13	0	20	5	5	2	5	0	4	5	42	23	124
1800	12	0	20	8	5	4	9	0	8	5	51	25	147
1815	7	0	22	0	3	0	4	0	6	6	45	27	120
Total	201	0	260	44	66	26	74	0	117	96	838	484	2206

Chicago, IL Weather: Cloudy and Cool 11/12/12
Ashland Ave and School St 12:08:34
Thursday November 8, 2012

TURNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: by Movement

Intersection # 11 ashland/school

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
700	24	0	49	5	9	4	8	0	11	13	184	111	418
715	26	0	55	4	10	6	9	0	12	13	223	128	486
730	38	0	61	6	9	4	11	0	12	19	247	121	528
745	42	0	52	5	8	4	11	0	16	20	252	114	524
800	45	0	56	8	8	6	11	0	17	26	217	90	484
815	38	0	45	6	4	3	8	0	13	23	157	63	360*
830	20	0	27	4	4	2	5	0	11	12	96	40	221*
845	12	0	19	3	2	2	2	0	5	9	40	22	116*
1600	64	0	56	10	22	4	17	0	36	24	156	134	523
1615	59	0	58	12	20	7	23	0	39	24	177	122	541
1630	57	0	51	12	22	7	22	0	42	25	163	100	501
1645	51	0	49	9	18	7	23	0	41	23	182	78	481
1700	49	0	57	13	19	8	25	0	39	22	185	97	514
1715	48	0	65	16	22	8	25	0	35	22	187	104	532
1730	42	0	76	14	18	6	23	0	27	18	184	107	515
1745	32	0	62	13	13	6	18	0	18	16	138	75	391*
1800	19	0	42	8	8	4	13	0	14	11	96	52	267*
1815	7	0	22	0	3	0	4	0	6	6	45	27	120*

Chicago, IL Weather: Cool and Dry 11/12/12
Ashland Ave and School St 14:54:29
Saturday November 10, 2012

TURNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - by Mvmt

Intersection # 1 ashland/school/sat

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
1200	8	0	18	4	1	3	2	0	11	12	40	19	118
1215	17	0	20	3	5	1	3	0	11	10	50	27	147
1230	12	0	13	4	11	1	3	0	10	12	37	22	125
1245	9	0	18	2	1	1	3	0	7	10	21	29	101
1300	0	0	15	3	0	0	3	0	0	1	0	1	23
1315	0	0	21	12	0	4	4	0	0	0	0	0	41
1330	12	0	13	1	9	1	2	0	11	8	35	23	115
1345	18	0	16	3	4	0	5	0	13	4	38	32	133
1400	13	0	17	13	7	1	6	0	12	10	41	30	150
1415	18	0	13	3	6	0	3	0	8	5	38	43	137
Total	107	0	164	48	44	12	34	0	83	72	300	226	1090

TURNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - Totals

Intersection # 1 ashland/school/sat

Begin	Approach Totals				Exit Totals				Int
Time	N	E	S	W	N	E	S	W	Total
1200	26	8	13	71	23	60	15	20	118
1215	37	9	14	87	30	73	11	33	147
1230	25	16	13	71	26	53	13	33	125
1245	27	4	10	60	31	42	11	17	101
1300	15	3	3	2	4	18	1	0	23
1315	21	16	4	0	12	25	4	0	41
1330	25	11	13	66	24	50	9	32	115
1345	34	7	18	74	35	59	4	35	133
1400	30	21	18	81	43	64	11	32	150
1415	31	9	11	86	46	54	5	32	137
Total	271	104	117	598	274	498	84	234	1090

Chicago, IL Weather: Cool and Dry 11/12/12
Ashland Ave and School St 14:54:29
Saturday November 10, 2012

TURNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: by Movement

Intersection # 1 ashland/school/sat

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
1200	46	0	69	13	18	6	11	0	39	44	148	97	491
1215	38	0	66	12	17	3	12	0	28	33	108	79	396
1230	21	0	67	21	12	6	13	0	17	23	58	52	290
1245	21	0	67	18	10	6	12	0	18	19	56	53	280
1300	30	0	65	19	13	5	14	0	24	13	73	56	312
1315	43	0	67	29	20	6	17	0	36	22	114	85	439
1330	61	0	59	20	26	2	16	0	44	27	152	128	535
1345	49	0	46	19	17	1	14	0	33	19	117	105	420*
1400	31	0	30	16	13	1	9	0	20	15	79	73	287*
1415	18	0	13	3	6	0	3	0	8	5	38	43	137*

TURNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: Appr/Exit Totals

Intersection # 1 ashland/school/sat

Begin	Approach Totals				Exit Totals				Int
Time	N	E	S	W	N	E	S	W	Total
1200	115	37	50	289	110	228	50	103	491
1215	104	32	40	220	91	186	36	83	396
1230	88	39	30	133	73	138	29	50	290
1245	88	34	30	128	71	135	25	49	280
1300	95	37	38	142	75	152	18	67	312
1315	110	55	53	221	114	198	28	99	439
1330	120	48	60	307	148	227	29	131	535
1345	95	37	47	241	124	177	20	99	420*
1400	61	30	29	167	89	118	16	64	287*
1415	31	9	11	86	46	54	5	32	137*

Chicago, IL Weather: Cloudy and Cool 11/12/12
Belmont Ave and Greenview 11:58:13
Thursday November 8, 2012

TURNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - by Mvmt

Intersection # 8 belmont/greenview

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
700	3	24	9	2	127	11	4	10	2	1	112	3	308
715	4	24	9	1	115	7	1	10	4	8	122	2	307
730	7	29	5	5	130	6	8	8	3	0	131	7	339
745	3	65	8	2	121	9	9	22	3	2	157	4	405
800	5	40	6	3	106	13	14	15	2	8	134	9	355
815	7	41	10	5	114	14	8	19	4	2	105	4	333
830	8	38	8	7	100	17	8	13	3	5	109	5	321
845	3	18	8	4	90	11	8	14	6	4	104	8	278
1600	0	23	4	3	103	6	6	29	6	12	103	3	298
1615	1	26	4	5	116	15	5	36	4	5	101	7	325
1630	2	21	5	6	115	12	5	32	6	12	119	7	342
1645	4	25	5	2	123	24	8	43	5	10	83	9	341
1700	2	20	6	4	119	15	9	29	3	1	105	9	322
1715	3	20	8	4	123	16	9	31	4	3	109	11	341
1730	1	10	5	4	140	5	6	22	5	5	91	4	298
1745	1	22	5	6	111	11	5	24	11	9	114	3	322
1800	12	18	10	4	130	13	11	33	2	5	119	5	362
1815	1	17	4	8	145	16	14	29	1	2	127	11	375
Total	67	481	119	75	2128	221	138	419	74	94	2045	111	5972

Chicago, IL Weather: Cloudy and Cool 11/12/12
Belmont Ave and Greenview 11:58:13
Thursday November 8, 2012

TURNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: by Movement

Intersection # 8 belmont/greenview

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
700	17	142	31	10	493	33	22	50	12	11	522	16	1359
715	19	158	28	11	472	35	32	55	12	18	544	22	1406
730	22	175	29	15	471	42	39	64	12	12	527	24	1432
745	23	184	32	17	441	53	39	69	12	17	505	22	1414
800	23	137	32	19	410	55	38	61	15	19	452	26	1287
815	18	97	26	16	304	42	24	46	13	11	318	17	932*
830	11	56	16	11	190	28	16	27	9	9	213	13	599*
845	3	18	8	4	90	11	8	14	6	4	104	8	278*
1600	7	95	18	16	457	57	24	140	21	39	406	26	1306
1615	9	92	20	17	473	66	27	140	18	28	408	32	1330
1630	11	86	24	16	480	67	31	135	18	26	416	36	1346
1645	10	75	24	14	505	60	32	125	17	19	388	33	1302
1700	7	72	24	18	493	47	29	106	23	18	419	27	1283
1715	17	70	28	18	504	45	31	110	22	22	433	23	1323
1730	15	67	24	22	526	45	36	108	19	21	451	23	1357
1745	14	57	19	18	386	40	30	86	14	16	360	19	1059*
1800	13	35	14	12	275	29	25	62	3	7	246	16	737*
1815	1	17	4	8	145	16	14	29	1	2	127	11	375*

Chicago, IL Weather: Cool and Dry 11/12/12
Belmont Ave and Greenview Ave 15:05:05
Saturday November 10, 2012

TURNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - by Mvmt

Intersection # 4 belmont/greenview/sat

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
1200	3	22	8	9	155	12	7	24	4	2	93	7	346
1215	2	16	5	1	145	9	12	29	7	4	108	7	345
1230	4	31	19	7	128	11	9	37	6	6	105	8	371
1245	2	24	3	4	139	11	7	31	8	7	112	10	358
1300	2	25	3	5	131	10	9	38	6	11	94	6	340
1315	2	33	5	7	153	22	13	41	5	4	110	8	403
1330	3	25	4	9	144	7	4	24	4	4	93	6	327
1345	1	27	4	12	145	9	6	24	6	6	103	6	349
1400	5	24	6	7	158	9	15	10	12	9	104	6	365
1415	4	25	4	10	107	11	9	45	4	8	110	10	347
Total	28	252	61	71	1405	111	91	303	62	61	1032	74	3551

TURNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - Totals

Intersection # 4 belmont/greenview/sat

Begin	Approach Totals				Exit Totals				Int
Time	N	E	S	W	N	E	S	W	Total
1200	33	176	35	102	40	108	36	162	346
1215	23	155	48	119	37	125	29	154	345
1230	54	146	52	119	52	133	48	138	371
1245	29	154	46	129	45	122	42	149	358
1300	30	146	53	111	49	106	46	139	340
1315	40	182	59	122	56	128	59	160	403
1330	32	160	32	103	39	101	36	151	327
1345	32	166	36	115	42	113	42	152	349
1400	35	174	37	119	23	125	42	175	365
1415	33	128	58	128	65	123	44	115	347
Total	341	1587	456	1167	448	1184	424	1495	3551

Chicago, IL Weather: Cool and Dry 11/12/12
Belmont Ave and Greenview Ave 15:05:05
Saturday November 10, 2012

TURNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: by Movement

Intersection # 4 belmont/greenview/sat

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
1200	11	93	35	21	567	43	35	121	25	19	418	32	1420
1215	10	96	30	17	543	41	37	135	27	28	419	31	1414
1230	10	113	30	23	551	54	38	147	25	28	421	32	1472
1245	9	107	15	25	567	50	33	134	23	26	409	30	1428
1300	8	110	16	33	573	48	32	127	21	25	400	26	1419
1315	11	109	19	35	600	47	38	99	27	23	410	26	1444
1330	13	101	18	38	554	36	34	103	26	27	410	28	1388
1345	10	76	14	29	410	29	30	79	22	23	317	22	1061*
1400	9	49	10	17	265	20	24	55	16	17	214	16	712*
1415	4	25	4	10	107	11	9	45	4	8	110	10	347*

TURNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: Appr/Exit Totals

Intersection # 4 belmont/greenview/sat

Begin	Approach Totals				Exit Totals				Int
Time	N	E	S	W	N	E	S	W	Total
1200	139	631	181	469	174	488	155	603	1420
1215	136	601	199	478	183	486	165	580	1414
1230	153	628	210	481	202	489	195	586	1472
1245	131	642	190	465	189	457	183	599	1428
1300	134	654	180	451	186	448	183	602	1419
1315	139	682	164	459	160	467	179	638	1444
1330	132	628	163	465	169	462	164	593	1388
1345	100	468	131	362	130	361	128	442	1061*
1400	68	302	95	247	88	248	86	290	712*
1415	33	128	58	128	65	123	44	115	347*

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 mscavo@kloainc.com

Count Name: Greenview and Melrose
Site Code:
Start Date: 08/21/2014

Turning Movement Data

Start Time	Greenview Avenue Southbound					Melrose Street Westbound					Greenview Avenue Northbound					Melrose Street Eastbound					
	Right	Thru	U-Turn	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Thru	Left	U-Turn	Peds	App. Total	Right	Left	U-Turn	Peds	App. Total	Int. Total
7:00 AM	0	9	0	1	9	2	5	0	2	7	6	5	0	0	11	10	1	0	1	11	38
7:15 AM	0	8	0	3	8	1	6	2	4	9	6	1	0	1	7	2	0	0	1	2	26
7:30 AM	0	18	0	0	18	2	0	1	2	3	7	1	0	1	8	6	1	0	1	7	36
7:45 AM	4	24	0	2	28	3	1	5	5	9	19	0	0	1	19	13	0	0	3	13	69
Hourly Total	4	59	0	6	63	8	12	8	13	28	38	7	0	3	45	31	2	0	6	33	169
8:00 AM	4	28	0	0	32	5	0	2	3	7	6	2	0	0	8	14	3	0	1	17	64
8:15 AM	2	16	0	1	18	7	3	2	1	12	11	3	1	0	15	9	3	1	0	13	58
8:30 AM	2	23	0	1	25	1	4	2	2	7	12	4	0	0	16	7	3	0	0	10	58
8:45 AM	4	22	1	0	27	4	1	1	3	6	8	2	0	4	10	10	0	0	3	10	53
Hourly Total	12	89	1	2	102	17	8	7	9	32	37	11	1	4	49	40	9	1	4	50	233
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	1	20	0	1	21	7	7	0	7	14	32	8	0	0	40	9	2	1	4	12	87
4:15 PM	2	10	0	1	12	7	5	4	4	16	37	1	0	0	38	7	1	0	1	8	74
4:30 PM	2	10	0	2	12	9	6	1	4	16	41	6	0	0	47	3	4	0	2	7	82
4:45 PM	1	17	0	0	18	7	7	5	4	19	33	2	0	1	35	15	0	0	3	15	87
Hourly Total	6	57	0	4	63	30	25	10	19	65	143	17	0	1	160	34	7	1	10	42	330
5:00 PM	4	15	0	1	19	5	8	3	3	16	39	4	0	1	43	9	2	0	1	11	89
5:15 PM	3	25	0	1	28	6	7	2	6	15	43	9	0	2	52	9	1	0	0	10	105
5:30 PM	3	21	0	1	24	8	4	3	4	15	30	8	0	3	38	12	2	0	8	14	91
5:45 PM	2	15	0	2	17	10	7	1	8	18	33	5	0	2	38	8	2	0	5	10	83
Hourly Total	12	76	0	5	88	29	26	9	21	64	145	26	0	8	171	38	7	0	14	45	368
6:00 PM	2	14	0	1	16	4	5	3	5	12	41	6	2	1	49	12	3	0	2	15	92
6:15 PM	0	20	0	2	20	5	8	3	10	16	34	5	0	0	39	6	4	0	1	10	85
6:30 PM	1	16	0	0	17	6	7	4	2	17	27	4	0	2	31	4	5	0	5	9	74
6:45 PM	1	12	0	0	13	8	4	3	2	15	25	6	0	1	31	10	5	0	8	15	74
Hourly Total	4	62	0	3	66	23	24	13	19	60	127	21	2	4	150	32	17	0	16	49	325
7:00 PM	0	7	0	0	7	5	6	3	7	14	28	9	2	3	39	10	2	0	5	12	72
7:15 PM	2	16	0	0	18	8	3	3	3	14	16	7	0	2	23	8	2	0	9	10	65
7:30 PM	0	4	0	2	4	8	3	3	4	14	16	3	0	0	19	4	2	0	3	6	43
7:45 PM	0	6	0	0	6	5	3	3	4	11	14	7	1	2	22	5	2	0	6	7	46
Hourly Total	2	33	0	2	35	26	15	12	18	53	74	26	3	7	103	27	8	0	23	35	226
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	13	0	1	13	3	3	8	8	14	25	5	0	4	30	6	3	0	1	9	66
11:15 AM	0	20	0	0	20	4	9	3	13	16	19	4	0	1	23	6	3	0	1	9	68
11:30 AM	3	23	0	0	26	2	5	5	9	12	18	6	0	3	24	4	3	0	2	7	69
11:45 AM	1	28	0	1	29	9	9	4	10	22	27	3	1	1	31	10	0	0	8	10	92

Hourly Total	4	84	0	2	88	18	26	20	40	64	89	18	1	9	108	26	9	0	12	35	295
12:00 PM	1	27	0	1	28	7	5	7	5	19	31	7	0	1	38	8	7	0	3	15	100
12:15 PM	2	19	0	0	21	7	6	3	9	16	34	3	0	0	37	10	8	0	3	18	92
12:30 PM	1	19	0	1	20	6	5	3	5	14	33	5	1	1	39	6	4	1	2	11	84
12:45 PM	0	19	0	4	19	2	6	3	5	11	17	1	0	3	18	5	2	0	14	7	55
Hourly Total	4	84	0	6	88	22	22	16	24	60	115	16	1	5	132	29	21	1	22	51	331
1:00 PM	3	17	0	0	20	4	7	2	6	13	25	7	0	9	32	11	4	0	3	15	80
1:15 PM	0	15	0	3	15	4	3	1	6	8	25	5	0	0	30	9	0	0	2	9	62
1:30 PM	0	21	0	1	21	3	5	2	5	10	28	5	1	3	34	16	3	0	9	19	84
1:45 PM	1	16	0	0	17	5	3	2	2	10	29	4	1	2	34	4	0	0	1	4	65
Hourly Total	4	69	0	4	73	16	18	7	19	41	107	21	2	14	130	40	7	0	15	47	291
2:00 PM	2	14	0	0	16	3	5	0	6	8	28	2	1	1	31	6	3	0	3	9	64
2:15 PM	1	7	0	6	8	2	3	4	4	9	17	5	0	0	22	7	1	0	3	8	47
2:30 PM	2	16	0	0	18	1	2	1	0	4	27	5	0	0	32	2	1	0	1	3	57
2:45 PM	0	17	0	1	17	9	4	0	0	13	21	4	0	0	25	7	0	0	0	7	62
Hourly Total	5	54	0	7	59	15	14	5	10	34	93	16	1	1	110	22	5	0	7	27	230
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	57	667	1	41	725	204	190	107	192	501	968	179	11	56	1158	319	92	3	129	414	2798
Approach %	7.9	92.0	0.1	-	-	40.7	37.9	21.4	-	-	83.6	15.5	0.9	-	-	77.1	22.2	0.7	-	-	-
Total %	2.0	23.8	0.0	-	25.9	7.3	6.8	3.8	-	17.9	34.6	6.4	0.4	-	41.4	11.4	3.3	0.1	-	14.8	-
Lights	57	634	1	-	692	191	178	107	-	476	916	178	11	-	1105	315	87	2	-	404	2677
% Lights	100.0	95.1	100.0	-	95.4	93.6	93.7	100.0	-	95.0	94.6	99.4	100.0	-	95.4	98.7	94.6	66.7	-	97.6	95.7
Buses	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	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	6	0	-	6	5	4	0	-	9	3	1	0	-	4	0	2	1	-	3	22
% Single-Unit Trucks	0.0	0.9	0.0	-	0.8	2.5	2.1	0.0	-	1.8	0.3	0.6	0.0	-	0.3	0.0	2.2	33.3	-	0.7	0.8
Articulated Trucks	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	2	0	0	-	2	3
% Articulated Trucks	0.0	0.1	0.0	-	0.1	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.6	0.0	0.0	-	0.5	0.1
Bicycles on Road	0	26	0	-	26	8	8	0	-	16	49	0	0	-	49	2	3	0	-	5	96
% Bicycles on Road	0.0	3.9	0.0	-	3.6	3.9	4.2	0.0	-	3.2	5.1	0.0	0.0	-	4.2	0.6	3.3	0.0	-	1.2	3.4
Pedestrians	-	-	-	41	-	-	-	-	192	-	-	-	-	56	-	-	-	-	129	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 mscavo@kloainc.com

Count Name: Greenview and Melrose
Site Code:
Start Date: 08/21/2014

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Greenview Avenue Southbound					Melrose Street Westbound					Greenview Avenue Northbound					Melrose Street Eastbound					
	Right	Thru	U-Turn	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Thru	Left	U-Turn	Peds	App. Total	Right	Left	U-Turn	Peds	App. Total	Int. Total
7:45 AM	4	24	0	2	28	3	1	5	5	9	19	0	0	1	19	13	0	0	3	13	69
8:00 AM	4	28	0	0	32	5	0	2	3	7	6	2	0	0	8	14	3	0	1	17	64
8:15 AM	2	16	0	1	18	7	3	2	1	12	11	3	1	0	15	9	3	1	0	13	58
8:30 AM	2	23	0	1	25	1	4	2	2	7	12	4	0	0	16	7	3	0	0	10	58
Total	12	91	0	4	103	16	8	11	11	35	48	9	1	1	58	43	9	1	4	53	249
Approach %	11.7	88.3	0.0	-	-	45.7	22.9	31.4	-	-	82.8	15.5	1.7	-	-	81.1	17.0	1.9	-	-	-
Total %	4.8	36.5	0.0	-	41.4	6.4	3.2	4.4	-	14.1	19.3	3.6	0.4	-	23.3	17.3	3.6	0.4	-	21.3	-
PHF	0.750	0.813	0.000	-	0.805	0.571	0.500	0.550	-	0.729	0.632	0.563	0.250	-	0.763	0.768	0.750	0.250	-	0.779	0.902
Lights	12	88	0	-	100	15	8	11	-	34	47	8	1	-	56	42	9	0	-	51	241
% Lights	100.0	96.7	-	-	97.1	93.8	100.0	100.0	-	97.1	97.9	88.9	100.0	-	96.6	97.7	100.0	0.0	-	96.2	96.8
Buses	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	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	3	0	-	3	1	0	0	-	1	0	1	0	-	1	0	0	1	-	1	6
% Single-Unit Trucks	0.0	3.3	-	-	2.9	6.3	0.0	0.0	-	2.9	0.0	11.1	0.0	-	1.7	0.0	0.0	100.0	-	1.9	2.4
Articulated Trucks	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	0.0	0.0	-	0.0	2.3	0.0	0.0	-	1.9	0.4
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	1	0	0	-	1	0	0	0	-	0	1
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	2.1	0.0	0.0	-	1.7	0.0	0.0	0.0	-	0.0	0.4
Pedestrians	-	-	-	4	-	-	-	-	11	-	-	-	-	1	-	-	-	-	4	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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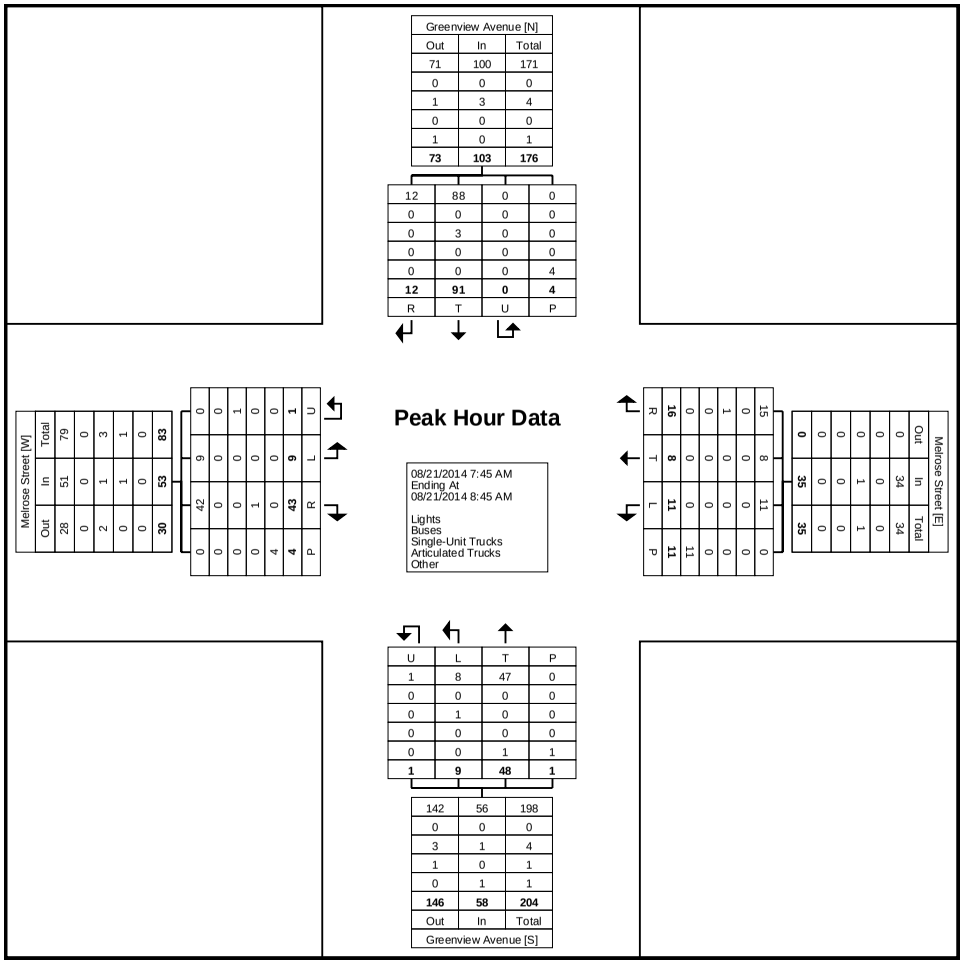
Count Name: Greenview and Melrose
Site Code:
Start Date: 08/21/2014



Turning Movement Peak Hour Data Plot (7:45 AM)

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9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 mscavo@kloainc.com

Count Name: Greenview and Melrose
Site Code:
Start Date: 08/21/2014

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Greenview Avenue Southbound					Melrose Street Westbound					Greenview Avenue Northbound					Melrose Street Eastbound					
	Right	Thru	U-Turn	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Thru	Left	U-Turn	Peds	App. Total	Right	Left	U-Turn	Peds	App. Total	Int. Total
4:45 PM	1	17	0	0	18	7	7	5	4	19	33	2	0	1	35	15	0	0	3	15	87
5:00 PM	4	15	0	1	19	5	8	3	3	16	39	4	0	1	43	9	2	0	1	11	89
5:15 PM	3	25	0	1	28	6	7	2	6	15	43	9	0	2	52	9	1	0	0	10	105
5:30 PM	3	21	0	1	24	8	4	3	4	15	30	8	0	3	38	12	2	0	8	14	91
Total	11	78	0	3	89	26	26	13	17	65	145	23	0	7	168	45	5	0	12	50	372
Approach %	12.4	87.6	0.0	-	-	40.0	40.0	20.0	-	-	86.3	13.7	0.0	-	-	90.0	10.0	0.0	-	-	-
Total %	3.0	21.0	0.0	-	23.9	7.0	7.0	3.5	-	17.5	39.0	6.2	0.0	-	45.2	12.1	1.3	0.0	-	13.4	-
PHF	0.688	0.780	0.000	-	0.795	0.813	0.813	0.650	-	0.855	0.843	0.639	0.000	-	0.808	0.750	0.625	0.000	-	0.833	0.886
Lights	11	78	0	-	89	26	23	13	-	62	142	23	0	-	165	45	5	0	-	50	366
% Lights	100.0	100.0	-	-	100.0	100.0	88.5	100.0	-	95.4	97.9	100.0	-	-	98.2	100.0	100.0	-	-	100.0	98.4
Buses	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	0.0	0.0	-	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Single-Unit Trucks	0.0	0.0	-	-	0.0	0.0	3.8	0.0	-	1.5	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.3
Articulated Trucks	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	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	2	0	-	2	3	0	0	-	3	0	0	0	-	0	5
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	7.7	0.0	-	3.1	2.1	0.0	-	-	1.8	0.0	0.0	-	-	0.0	1.3
Pedestrians	-	-	-	3	-	-	-	-	17	-	-	-	-	7	-	-	-	-	12	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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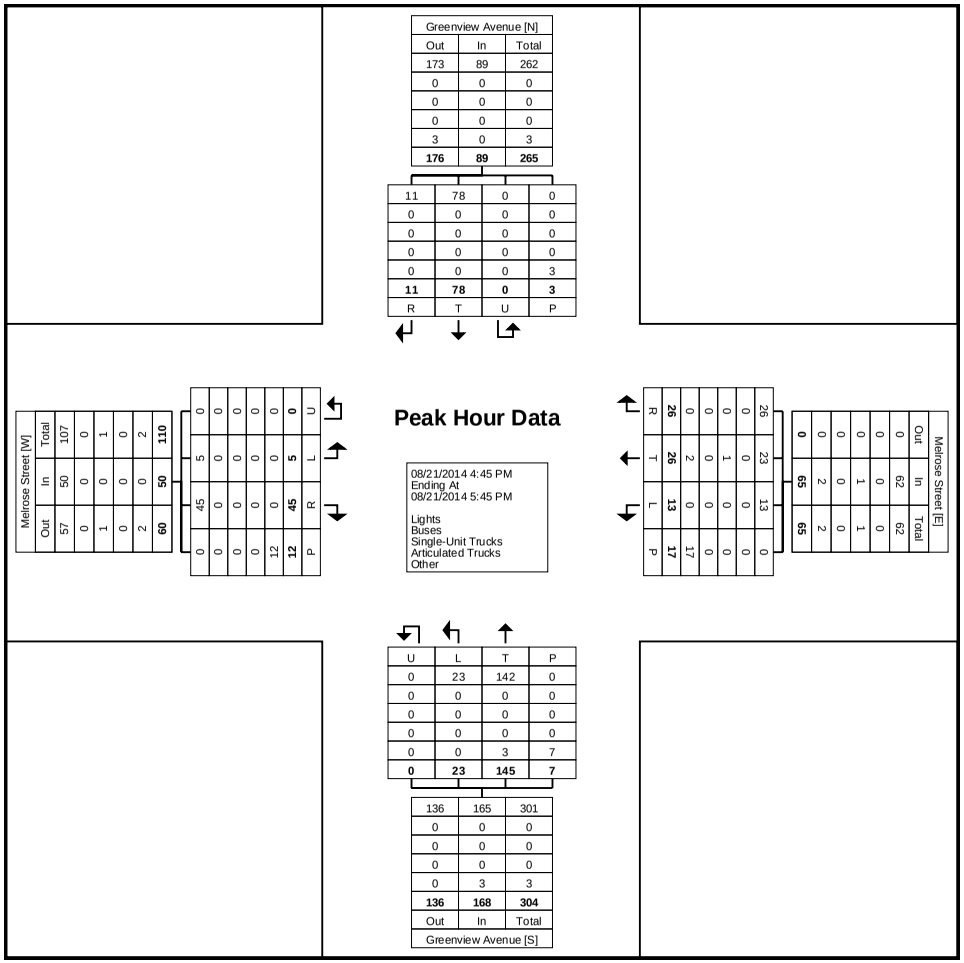

Turning Movement Peak Hour Data Plot (4:45 PM)

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(847)518-9990 mscavo@kloainc.com

Count Name: Greenview and Melrose
Site Code:
Start Date: 08/21/2014

Turning Movement Peak Hour Data (11:00 AM)

Start Time	Greenview Avenue Southbound					Melrose Street Westbound					Greenview Avenue Northbound					Melrose Street Eastbound					
	Right	Thru	U-Turn	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Thru	Left	U-Turn	Peds	App. Total	Right	Left	U-Turn	Peds	App. Total	Int. Total
11:00 AM	0	13	0	1	13	3	3	8	8	14	25	5	0	4	30	6	3	0	1	9	66
11:15 AM	0	20	0	0	20	4	9	3	13	16	19	4	0	1	23	6	3	0	1	9	68
11:30 AM	3	23	0	0	26	2	5	5	9	12	18	6	0	3	24	4	3	0	2	7	69
11:45 AM	1	28	0	1	29	9	9	4	10	22	27	3	1	1	31	10	0	0	8	10	92
Total	4	84	0	2	88	18	26	20	40	64	89	18	1	9	108	26	9	0	12	35	295
Approach %	4.5	95.5	0.0	-	-	28.1	40.6	31.3	-	-	82.4	16.7	0.9	-	-	74.3	25.7	0.0	-	-	-
Total %	1.4	28.5	0.0	-	29.8	6.1	8.8	6.8	-	21.7	30.2	6.1	0.3	-	36.6	8.8	3.1	0.0	-	11.9	-
PHF	0.333	0.750	0.000	-	0.759	0.500	0.722	0.625	-	0.727	0.824	0.750	0.250	-	0.871	0.650	0.750	0.000	-	0.875	0.802
Lights	4	80	0	-	84	15	25	20	-	60	83	18	1	-	102	25	8	0	-	33	279
% Lights	100.0	95.2	-	-	95.5	83.3	96.2	100.0	-	93.8	93.3	100.0	100.0	-	94.4	96.2	88.9	-	-	94.3	94.6
Buses	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	-	0.0	0.0	0.0	-	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	1	1	0	-	2	0	0	0	-	0	0	0	0	-	0	2
% Single-Unit Trucks	0.0	0.0	-	-	0.0	5.6	3.8	0.0	-	3.1	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	0.0	0.7
Articulated Trucks	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	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	0	4	0	-	4	2	0	0	-	2	6	0	0	-	6	1	1	0	-	2	14
% Bicycles on Road	0.0	4.8	-	-	4.5	11.1	0.0	0.0	-	3.1	6.7	0.0	0.0	-	5.6	3.8	11.1	-	-	5.7	4.7
Pedestrians	-	-	-	2	-	-	-	-	40	-	-	-	-	9	-	-	-	-	12	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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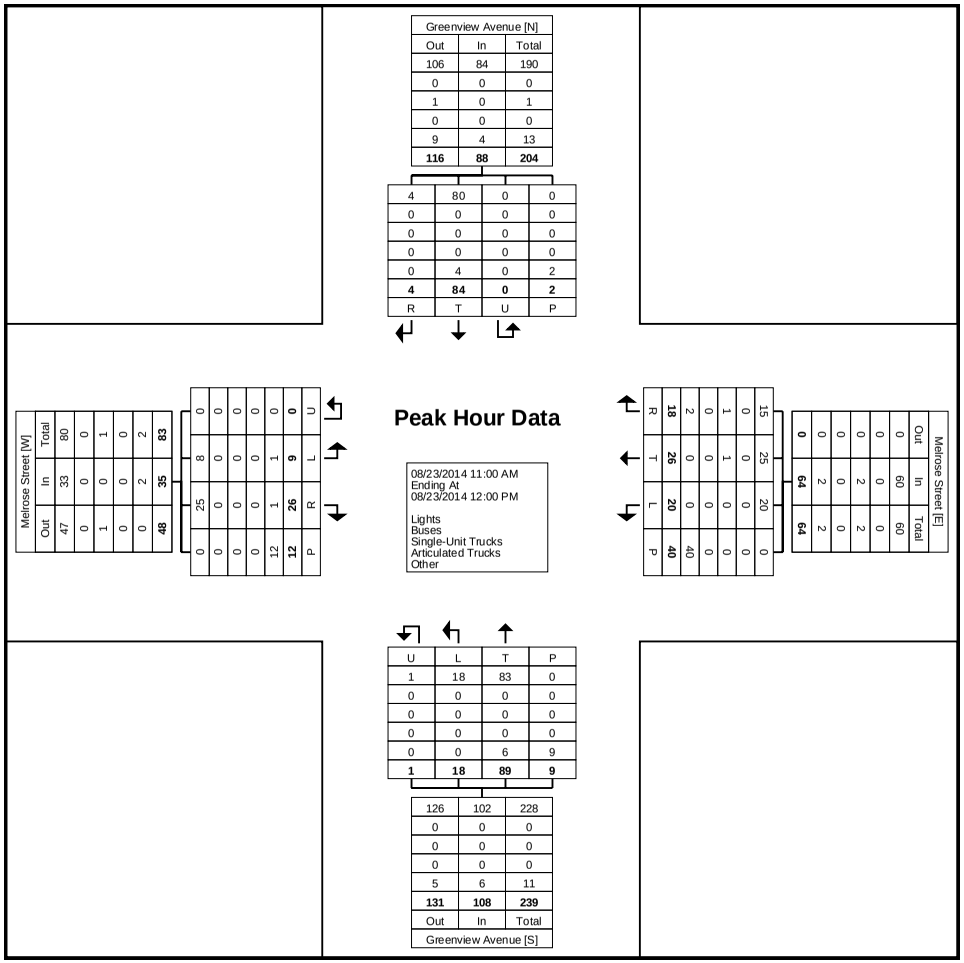
Start Date: 08/21/2014



Turning Movement Peak Hour Data Plot (11:00 AM)

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9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 mscavo@kloainc.com

Count Name: Greenview and Melrose
Site Code:
Start Date: 08/21/2014

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Greenview Avenue Southbound					Melrose Street Westbound					Greenview Avenue Northbound					Melrose Street Eastbound					
	Right	Thru	U-Turn	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Thru	Left	U-Turn	Peds	App. Total	Right	Left	U-Turn	Peds	App. Total	Int. Total
12:00 PM	1	27	0	1	28	7	5	7	5	19	31	7	0	1	38	8	7	0	3	15	100
12:15 PM	2	19	0	0	21	7	6	3	9	16	34	3	0	0	37	10	8	0	3	18	92
12:30 PM	1	19	0	1	20	6	5	3	5	14	33	5	1	1	39	6	4	1	2	11	84
12:45 PM	0	19	0	4	19	2	6	3	5	11	17	1	0	3	18	5	2	0	14	7	55
Total	4	84	0	6	88	22	22	16	24	60	115	16	1	5	132	29	21	1	22	51	331
Approach %	4.5	95.5	0.0	-	-	36.7	36.7	26.7	-	-	87.1	12.1	0.8	-	-	56.9	41.2	2.0	-	-	-
Total %	1.2	25.4	0.0	-	26.6	6.6	6.6	4.8	-	18.1	34.7	4.8	0.3	-	39.9	8.8	6.3	0.3	-	15.4	-
PHF	0.500	0.778	0.000	-	0.786	0.786	0.917	0.571	-	0.789	0.846	0.571	0.250	-	0.846	0.725	0.656	0.250	-	0.708	0.828
Lights	4	72	0	-	76	21	20	16	-	57	106	16	1	-	123	28	20	1	-	49	305
% Lights	100.0	85.7	-	-	86.4	95.5	90.9	100.0	-	95.0	92.2	100.0	100.0	-	93.2	96.6	95.2	100.0	-	96.1	92.1
Buses	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	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	1	0	-	1	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	2
% Single-Unit Trucks	0.0	1.2	-	-	1.1	0.0	4.5	0.0	-	1.7	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.6
Articulated Trucks	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	1	0	0	-	1	2
% Articulated Trucks	0.0	1.2	-	-	1.1	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	3.4	0.0	0.0	-	2.0	0.6
Bicycles on Road	0	10	0	-	10	1	1	0	-	2	9	0	0	-	9	0	1	0	-	1	22
% Bicycles on Road	0.0	11.9	-	-	11.4	4.5	4.5	0.0	-	3.3	7.8	0.0	0.0	-	6.8	0.0	4.8	0.0	-	2.0	6.6
Pedestrians	-	-	-	6	-	-	-	-	24	-	-	-	-	5	-	-	-	-	22	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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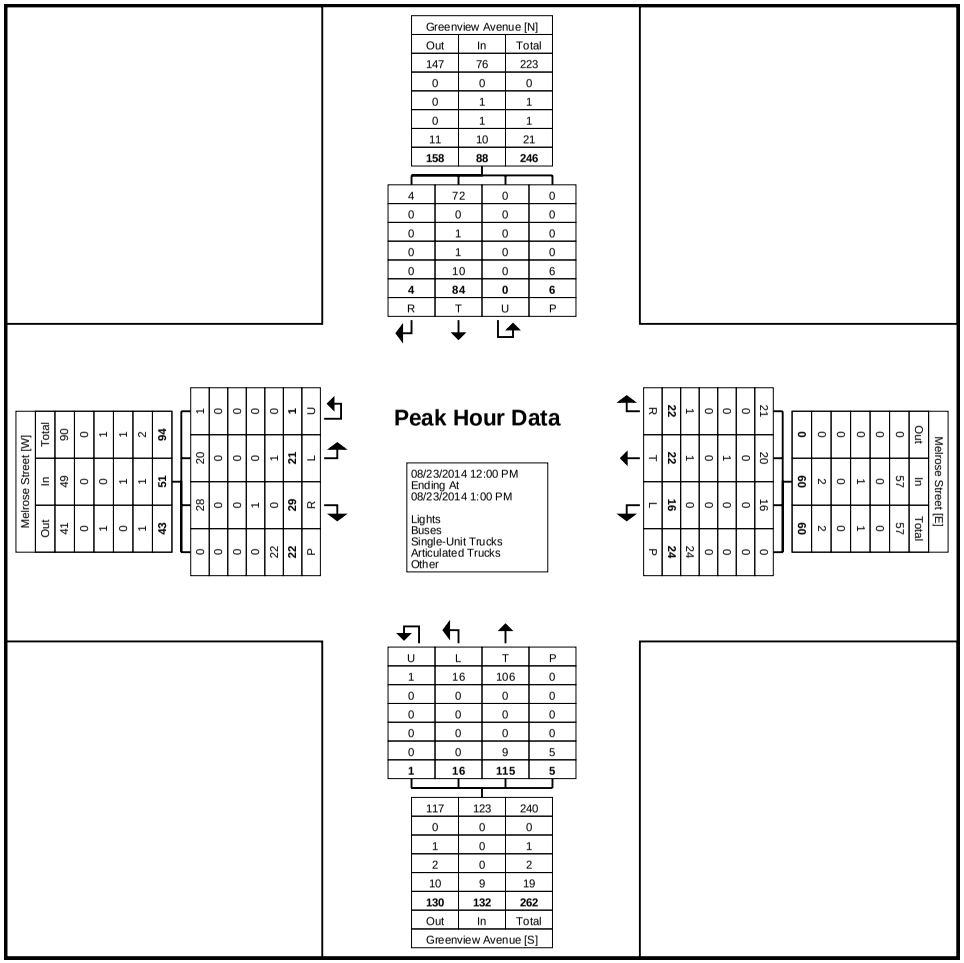


Turning Movement Peak Hour Data Plot (12:00 PM)

Chicago, IL Weather: Cloudy and Cool 11/12/12
Ashland Ave and Bank Access Dr 12:34:01
Thursday November 8, 2012

TURNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - by Mvmt

Intersection # 8 ashland/bankacc

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
700	0	0	0	0	0	0	0	0	0	0	0	0	0
715	1	0	0	0	0	0	0	0	1	0	0	0	2
730	1	0	0	0	0	0	0	0	0	1	0	0	2
745	3	0	0	0	0	0	0	0	0	2	0	1	6
800	2	0	0	0	0	0	0	0	0	0	0	0	2
815	2	0	0	0	0	0	0	0	0	0	0	0	2
830	0	0	0	0	0	0	0	0	0	1	0	1	2
845	1	0	0	0	0	0	0	0	0	1	0	0	2
1600	5	0	0	0	0	0	0	0	3	4	0	2	14
1615	4	0	0	0	0	0	0	0	0	1	0	1	6
1630	1	0	0	0	0	0	0	0	1	5	0	2	9
1645	4	0	0	0	0	0	0	0	0	2	0	0	6
1700	1	0	0	0	0	0	0	0	0	3	0	0	4
1715	1	0	0	0	0	0	0	0	0	2	0	0	3
1730	2	0	0	0	0	0	0	0	1	4	0	1	8
1745	0	0	0	0	0	0	0	0	0	0	0	0	0
1800	1	0	0	0	0	0	0	0	0	1	0	0	2
1815	1	0	0	0	0	0	0	0	0	3	0	0	4
Total	30	0	0	0	0	0	0	0	6	30	0	8	74

Chicago, IL Weather: Cloudy and Cool 11/12/12
Ashland Ave and Bank Access Dr 12:34:01
Thursday November 8, 2012

TURNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: by Movement

Intersection # 8 ashland/bankacc

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
700	5	0	0	0	0	0	0	0	1	3	0	1	10
715	7	0	0	0	0	0	0	0	1	3	0	1	12
730	8	0	0	0	0	0	0	0	0	3	0	1	12
745	7	0	0	0	0	0	0	0	0	3	0	2	12
800	5	0	0	0	0	0	0	0	0	2	0	1	8
815	3	0	0	0	0	0	0	0	0	2	0	1	6*
830	1	0	0	0	0	0	0	0	0	2	0	1	4*
845	1	0	0	0	0	0	0	0	0	1	0	0	2*
1600	14	0	0	0	0	0	0	0	4	12	0	5	35
1615	10	0	0	0	0	0	0	0	1	11	0	3	25
1630	7	0	0	0	0	0	0	0	1	12	0	2	22
1645	8	0	0	0	0	0	0	0	1	11	0	1	21
1700	4	0	0	0	0	0	0	0	1	9	0	1	15
1715	4	0	0	0	0	0	0	0	1	7	0	1	13
1730	4	0	0	0	0	0	0	0	1	8	0	1	14
1745	2	0	0	0	0	0	0	0	0	4	0	0	6*
1800	2	0	0	0	0	0	0	0	0	4	0	0	6*
1815	1	0	0	0	0	0	0	0	0	3	0	0	4*

Chicago, IL Weather: Cool and Dry 11/13/12
Ashland Ave and Bank Access 12:26:37
Saturday November 10, 2012

TURNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - by Mvmt

Intersection # 11 ashland/bankacc/sat

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
1200	1	0	0	0	0	0	0	0	0	2	0	0	3
1215	3	0	0	0	0	0	0	0	0	2	0	1	6
1230	1	0	0	0	0	0	0	0	0	2	0	1	4
1245	2	0	0	0	0	0	0	0	1	3	0	1	7
1300	2	0	0	0	0	0	0	0	0	2	0	0	4
1315	3	0	0	0	0	0	0	0	0	1	0	2	6
1330	4	0	0	0	0	0	0	0	0	1	0	1	6
1345	2	0	0	0	0	0	0	0	2	4	0	0	8
1400	1	0	0	0	0	0	0	0	0	2	0	0	3
1415	1	0	0	0	0	0	0	0	0	2	0	0	3
Total	20	0	0	0	0	0	0	0	3	21	0	6	50

TURNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - Totals

Intersection # 11 ashland/bankacc/sat

Begin	Approach Totals				Exit Totals				Int
Time	N	E	S	W	N	E	S	W	Total
1200	1	0	0	2	0	0	2	1	3
1215	3	0	0	3	1	0	2	3	6
1230	1	0	0	3	1	0	2	1	4
1245	2	0	1	4	1	0	3	3	7
1300	2	0	0	2	0	0	2	2	4
1315	3	0	0	3	2	0	1	3	6
1330	4	0	0	2	1	0	1	4	6
1345	2	0	2	4	0	0	4	4	8
1400	1	0	0	2	0	0	2	1	3
1415	1	0	0	2	0	0	2	1	3
Total	20	0	3	27	6	0	21	23	50

Chicago, IL Weather: Cool and Dry 11/13/12
Ashland Ave and Bank Access 12:26:37
Saturday November 10, 2012

TURNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: by Movement

Intersection # 11 ashland/bankacc/sat

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
1200	7	0	0	0	0	0	0	0	1	9	0	3	20
1215	8	0	0	0	0	0	0	0	1	9	0	3	21
1230	8	0	0	0	0	0	0	0	1	8	0	4	21
1245	11	0	0	0	0	0	0	0	1	7	0	4	23
1300	11	0	0	0	0	0	0	0	2	8	0	3	24
1315	10	0	0	0	0	0	0	0	2	8	0	3	23
1330	8	0	0	0	0	0	0	0	2	9	0	1	20
1345	4	0	0	0	0	0	0	0	2	8	0	0	14*
1400	2	0	0	0	0	0	0	0	0	4	0	0	6*
1415	1	0	0	0	0	0	0	0	0	2	0	0	3*

TURNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: Appr/Exit Totals

Intersection # 11 ashland/bankacc/sat

Begin	Approach Totals				Exit Totals				Int
Time	N	E	S	W	N	E	S	W	Total
1200	7	0	1	12	3	0	9	8	20
1215	8	0	1	12	3	0	9	9	21
1230	8	0	1	12	4	0	8	9	21
1245	11	0	1	11	4	0	7	12	23
1300	11	0	2	11	3	0	8	13	24
1315	10	0	2	11	3	0	8	12	23
1330	8	0	2	10	1	0	9	10	20
1345	4	0	2	8	0	0	8	6	14*
1400	2	0	0	4	0	0	4	2	6*
1415	1	0	0	2	0	0	2	1	3*

Capacity Analyses

Whole Foods Market – Belmont/Ashland
Chicago, Illinois

KLOA
Kenig, Lindgren, O'Hara, Aboona, Inc.

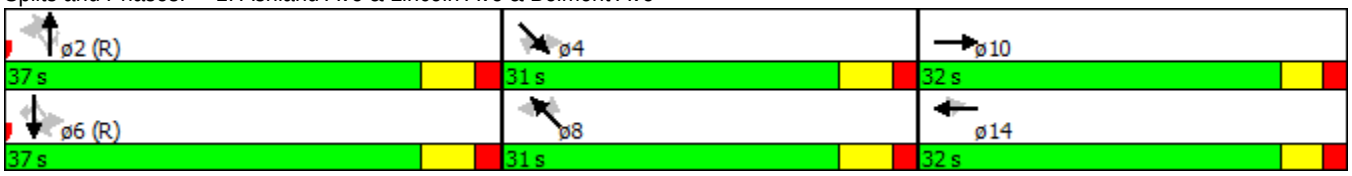
Lane Group	EBT	EBR	EBR2	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR	NBR2	SBL2
Lane Configurations												
Volume (vph)	336	61	38	347	80	31	22	98	886	38	3	11
Ideal Flow (vphpl)	2000	1900	1900	2000	1900	1900	1900	1900	2000	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)	0%			0%					0%			
Storage Length (ft)		0			0			155		50		
Storage Lanes		0			1			1		1		
Taper Length (ft)								90				
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95	0.95
Ped Bike Factor	0.96				0.67			0.88		0.64		
Frt	0.966				0.850					0.850		
Flt Protected								0.950				
Satd. Flow (prot)	3375	0	0	1914	1546	0	0	1728	3637	1546	0	0
Flt Permitted								0.225				
Satd. Flow (perm)	3375	0	0	1914	1041	0	0	362	3637	987	0	0
Right Turn on Red			No			No					No	
Satd. Flow (RTOR)												
Link Speed (mph)	30			30					30			
Link Distance (ft)	330			658					666			
Travel Time (s)	7.5			15.0					15.1			
Confl. Peds. (#/hr)		42	42		137	72	57	137		80	72	80
Confl. Bikes (#/hr)		6	6		3	3				2	2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)	0%			0%					0%			
Shared Lane Traffic (%)												
Lane Group Flow (vph)	458	0	0	365	117	0	0	126	933	43	0	0
Turn Type	NA			NA	Perm		Perm	Perm	NA	Perm		Perm
Protected Phases	10			14					2			
Permitted Phases					14		2	2		2		6
Detector Phase	10			14	14		2	2	2	2		6
Switch Phase												
Minimum Initial (s)	4.0			4.0	4.0		4.0	4.0	4.0	4.0		4.0
Minimum Split (s)	22.0			22.0	22.0		28.0	28.0	28.0	28.0		28.0
Total Split (s)	32.0			32.0	32.0		37.0	37.0	37.0	37.0		37.0
Total Split (%)	32.0%			32.0%	32.0%		37.0%	37.0%	37.0%	37.0%		37.0%
Yellow Time (s)	3.0			3.0	3.0		4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	2.0			2.0	2.0		2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)	0.0			0.0	0.0			0.0	0.0	0.0		
Total Lost Time (s)	5.0			5.0	5.0			6.0	6.0	6.0		
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max			Max	Max		Max	Max	Max	Max		Max
Act Effct Green (s)	27.0			27.0	27.0			31.0	31.0	31.0		
Actuated g/C Ratio	0.27			0.27	0.27			0.31	0.31	0.31		
v/c Ratio	0.50			0.71	0.42			1.12	0.83	0.14		

Lane Group	SBL	SBT	SBR	SBR2	SEL	SET	SER	SER2	NWL	NWT	NWR	NWR2
Lane Configurations												
Volume (vph)	55	687	95	18	40	175	56	3	36	311	95	5
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	2000	1900	1900	1900	2000	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%				0%				0%		
Storage Length (ft)	140		50		50		10		40		10	
Storage Lanes	1		1		1		1		1		1	
Taper Length (ft)	50				60				60			
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.95		0.55		0.94		0.66		0.87		0.65	
Frt			0.850				0.850				0.850	
Flt Protected	0.950				0.950				0.950			
Satd. Flow (prot)	1728	3637	1546	0	1728	1914	1546	0	1728	1914	1546	0
Flt Permitted	0.129				0.323				0.576			
Satd. Flow (perm)	222	3637	845	0	550	1914	1021	0	914	1914	999	0
Right Turn on Red				No				No				No
Satd. Flow (RTOR)												
Link Speed (mph)		30				30				30		
Link Distance (ft)		333				389				552		
Travel Time (s)		7.6				8.8				12.5		
Confl. Peds. (#/hr)	72		57	137	80		42	57	57		72	80
Confl. Bikes (#/hr)			1	1			8	8			67	67
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%				0%		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	70	723	119	0	42	184	62	0	38	327	105	0
Turn Type	Perm	NA	Perm		Perm	NA	Perm		Perm	NA	Perm	
Protected Phases		6				4				8		
Permitted Phases	6		6		4		4		8		8	
Detector Phase	6	6	6		4	4	4		8	8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Minimum Split (s)	28.0	28.0	28.0		22.0	22.0	22.0		22.0	22.0	22.0	
Total Split (s)	37.0	37.0	37.0		31.0	31.0	31.0		31.0	31.0	31.0	
Total Split (%)	37.0%	37.0%	37.0%		31.0%	31.0%	31.0%		31.0%	31.0%	31.0%	
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0	6.0		6.0	6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max		Max	Max	Max		Max	Max	Max	
Act Effct Green (s)	31.0	31.0	31.0		25.0	25.0	25.0		25.0	25.0	25.0	
Actuated g/C Ratio	0.31	0.31	0.31		0.25	0.25	0.25		0.25	0.25	0.25	
v/c Ratio	1.03	0.64	0.46		0.31	0.38	0.24		0.17	0.68	0.42	

Lane Group	EBT	EBR	EBR2	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR	NBR2	SBL2
Control Delay	33.1			35.3	29.4			158.3	39.6	26.5		
Queue Delay	0.0			0.0	0.0			0.0	0.0	0.0		
Total Delay	33.1			35.3	29.4			158.3	39.6	26.5		
LOS	C			D	C			F	D	C		
Approach Delay	33.1			33.9					52.6			
Approach LOS	C			C					D			
Queue Length 50th (ft)	130			181	41			~93	289	20		
Queue Length 95th (ft)	179			305	m87			#209	368	47		
Internal Link Dist (ft)	250			578					586			
Turn Bay Length (ft)								155		50		
Base Capacity (vph)	911			516	281			112	1127	305		
Starvation Cap Reductn	0			0	0			0	0	0		
Spillback Cap Reductn	0			0	0			0	0	0		
Storage Cap Reductn	0			0	0			0	0	0		
Reduced v/c Ratio	0.50			0.71	0.42			1.13	0.83	0.14		

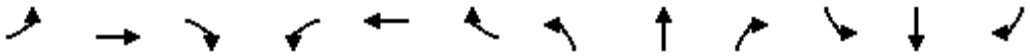
Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green, Master Intersection			
Natural Cycle: 75			
Control Type: Pretimed			
Maximum v/c Ratio: 1.13			
Intersection Signal Delay: 42.4		Intersection LOS: D	
Intersection Capacity Utilization 87.3%		ICU Level of Service E	
Analysis Period (min) 15			
~	Volume exceeds capacity, queue is theoretically infinite.		
	Queue shown is maximum after two cycles.		
#	95th percentile volume exceeds capacity, queue may be longer.		
	Queue shown is maximum after two cycles.		
m	Volume for 95th percentile queue is metered by upstream signal.		

Splits and Phases: 1: Ashland Ave & Lincoln Ave & Belmont Ave



Lane Group	SBL	SBT	SBR	SBR2	SEL	SET	SER	SER2	NWL	NWT	NWR	NWR2
Control Delay	157.0	32.9	34.6		37.8	34.0	33.1		31.7	42.4	37.7	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay	157.0	32.9	34.6		37.8	34.0	33.1		31.7	42.4	37.7	
LOS	F	C	C		D	C	C		C	D	D	
Approach Delay		42.6				34.3				40.5		
Approach LOS		D				C				D		
Queue Length 50th (ft)	~46	207	61		22	98	32		19	189	56	
Queue Length 95th (ft)	#138	271	118		55	161	69		47	286	109	
Internal Link Dist (ft)		253				309				472		
Turn Bay Length (ft)	140		50		50		10		40		10	
Base Capacity (vph)	68	1127	261		137	478	255		228	478	249	
Starvation Cap Reductn	0	0	0		0	0	0		0	0	0	
Spillback Cap Reductn	0	0	0		0	0	0		0	0	0	
Storage Cap Reductn	0	0	0		0	0	0		0	0	0	
Reduced v/c Ratio	1.03	0.64	0.46		0.31	0.38	0.24		0.17	0.68	0.42	

Intersection Summary

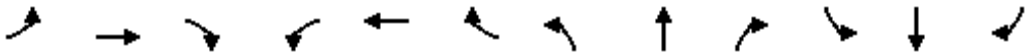


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	121	247	19	4	9	6	12	995	11	61	858	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	115		0	75		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99			0.98		0.99	1.00		1.00	1.00	
Frt		0.993			0.957			0.998			0.994	
Flt Protected		0.985			0.990		0.950			0.950		
Satd. Flow (prot)	0	1775	0	0	1699	0	1728	3447	0	1728	3425	0
Flt Permitted		0.892			0.940		0.243			0.203		
Satd. Flow (perm)	0	1592	0	0	1609	0	438	3447	0	368	3425	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		273			387			328			273	
Travel Time (s)		6.2			8.8			7.5			6.2	
Confl. Peds. (#/hr)	35		35	35		35	46		18	18		46
Confl. Bikes (#/hr)			2			1			2			9
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	407	0	0	19	0	13	1059	0	64	943	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	32.0	32.0		32.0	32.0		53.0	53.0		53.0	53.0	
Total Split (s)	32.0	32.0		32.0	32.0		53.0	53.0		53.0	53.0	
Total Split (%)	37.6%	37.6%		37.6%	37.6%		62.4%	62.4%		62.4%	62.4%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		28.0			28.0		49.0	49.0		49.0	49.0	
Actuated g/C Ratio		0.33			0.33		0.58	0.58		0.58	0.58	
v/c Ratio		0.78			0.04		0.05	0.53		0.30	0.48	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		37.8			19.7		8.6	12.2		14.1	11.5	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		37.8			19.7		8.6	12.2		14.1	11.5	
LOS		D			B		A	B		B	B	
Approach Delay		37.8			19.7			12.2			11.7	
Approach LOS		D			B			B			B	
Queue Length 50th (ft)		194			7		3	167		16	142	
Queue Length 95th (ft)		#336			22		11	219		44	188	
Internal Link Dist (ft)		193			307			248			193	
Turn Bay Length (ft)							115			75		
Base Capacity (vph)		524			530		252	1987		212	1974	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.78			0.04		0.05	0.53		0.30	0.48	

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 85			
Offset: 70 (82%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 85			
Control Type: Pretimed			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 16.2		Intersection LOS: B	
Intersection Capacity Utilization 81.9%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 2: Ashland Ave & School St

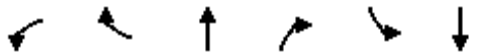


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	394	12	42	424	15	12	64	39	29	145	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		25	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00	0.96		0.97			0.99	
Frt		0.996				0.850		0.954			0.985	
Flt Protected		0.997			0.996			0.995			0.993	
Satd. Flow (prot)	0	3426	0	0	1811	1546	0	1680	0	0	1764	0
Flt Permitted		0.916			0.932			0.967			0.948	
Satd. Flow (perm)	0	3146	0	0	1693	1486	0	1627	0	0	1673	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		658			302			285			333	
Travel Time (s)		15.0			6.9			6.5			7.6	
Confl. Peds. (#/hr)	20		41	41		20	40		40	40		40
Confl. Bikes (#/hr)			6			10			8			2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	453	0	0	490	16	0	121	0	0	207	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	2	2		6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	76.0	76.0		76.0	76.0	76.0	24.0	24.0		24.0	24.0	
Total Split (s)	76.0	76.0		76.0	76.0	76.0	24.0	24.0		24.0	24.0	
Total Split (%)	76.0%	76.0%		76.0%	76.0%	76.0%	24.0%	24.0%		24.0%	24.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0			0.0	
Total Lost Time (s)		4.0			4.0	4.0		4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max	Max	Max	Max		Max	Max	
Act Effct Green (s)		72.0			72.0	72.0		20.0			20.0	
Actuated g/C Ratio		0.72			0.72	0.72		0.20			0.20	
v/c Ratio		0.20			0.40	0.01		0.37			0.62	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		0.9			6.7	4.1		38.5			45.6	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		0.9			6.7	4.1		38.5			45.6	
LOS		A			A	A		D			D	
Approach Delay		0.9			6.6			38.5			45.6	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)		5			106	3		67			121	
Queue Length 95th (ft)		m7			156	8		122			199	
Internal Link Dist (ft)		578			222			205			253	
Turn Bay Length (ft)						25						
Base Capacity (vph)		2265			1218	1069		325			334	
Starvation Cap Reductn		0			0	0		0			0	
Spillback Cap Reductn		0			0	0		0			0	
Storage Cap Reductn		0			0	0		0			0	
Reduced v/c Ratio		0.20			0.40	0.01		0.37			0.62	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 54 (54%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 100			
Control Type: Pretimed			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 13.9		Intersection LOS: B	
Intersection Capacity Utilization 146.7%		ICU Level of Service H	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

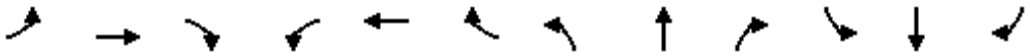
Splits and Phases: 3: Greenview Ave & Belmont Ave



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	2	17	1001	11	17	864
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	2	18	1054	12	18	909
Pedestrians	20		1			2
Lane Width (ft)	11.0		11.0			11.0
Walking Speed (ft/s)	4.0		4.0			4.0
Percent Blockage	2		0			0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			333			328
pX, platoon unblocked	0.84	0.76			0.76	
vC, conflicting volume	1571	555			1085	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	460	0			476	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	98			98	
cM capacity (veh/h)	428	811			814	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	20	702	363	18	455	455
Volume Left	2	0	0	18	0	0
Volume Right	18	0	12	0	0	0
cSH	741	1700	1700	814	1700	1700
Volume to Capacity	0.03	0.41	0.21	0.02	0.27	0.27
Queue Length 95th (ft)	2	0	0	2	0	0
Control Delay (s)	10.0	0.0	0.0	9.5	0.0	0.0
Lane LOS	A			A		
Approach Delay (s)	10.0	0.0		0.2		
Approach LOS	A					

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	38.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	10	0	30	7	8	17	12	91	0	0	109	12
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	11	0	32	7	8	18	13	96	0	0	115	13

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total (vph)	11	32	34	108	127
Volume Left (vph)	11	0	7	13	0
Volume Right (vph)	0	32	18	0	13
Hadj (s)	0.52	-0.68	-0.26	0.04	-0.04
Departure Headway (s)	5.6	4.4	4.3	4.2	4.1
Degree Utilization, x	0.02	0.04	0.04	0.13	0.15
Capacity (veh/h)	608	774	777	822	848
Control Delay (s)	7.5	6.3	7.5	7.9	7.9
Approach Delay (s)	6.6		7.5	7.9	7.9
Approach LOS	A		A	A	A

Intersection Summary				
Delay	7.7			
Level of Service	A			
Intersection Capacity Utilization	30.4%	ICU Level of Service	A	
Analysis Period (min)	15			

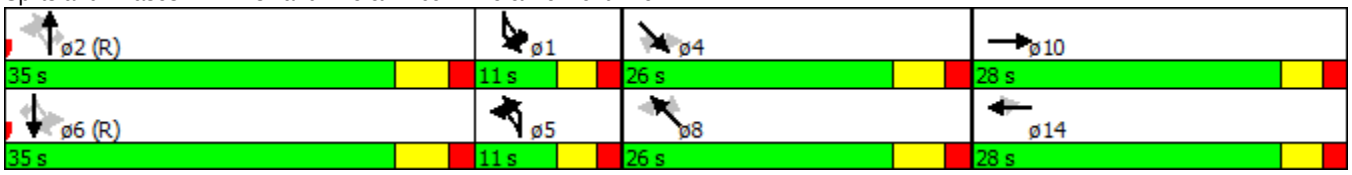
Lane Group	EBT	EBR	EBR2	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR	NBR2	SBL2
Lane Configurations												
Volume (vph)	357	62	39	361	88	32	23	99	918	39	4	23
Ideal Flow (vphpl)	2000	1900	1900	2000	1900	1900	1900	1900	2000	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)	0%			0%					0%			
Storage Length (ft)		0			0			155		50		
Storage Lanes		0			1			1		1		
Taper Length (ft)								90				
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95	0.95
Ped Bike Factor	0.95				0.67			0.89		0.64		
Frt	0.967				0.850					0.850		
Flt Protected								0.950				
Satd. Flow (prot)	3340	0	0	1914	1546	0	0	1728	3637	1546	0	0
Flt Permitted								0.194				
Satd. Flow (perm)	3340	0	0	1914	1041	0	0	315	3637	986	0	0
Right Turn on Red			No			No					No	
Satd. Flow (RTOR)												
Link Speed (mph)	30			30					30			
Link Distance (ft)	330			201					666			
Travel Time (s)	7.5			4.6					15.1			
Confl. Peds. (#/hr)		72	42		137	72	57	137		80	72	80
Confl. Bikes (#/hr)		6	6		3	3				2	2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)	0%			0%					0%			
Shared Lane Traffic (%)												
Lane Group Flow (vph)	482	0	0	380	127	0	0	128	966	45	0	0
Turn Type	NA			NA	Perm		pm+pt	pm+pt	NA	Perm		pm+pt
Protected Phases	10			14			5	5	2			1
Permitted Phases					14		2	2		2		6
Detector Phase	10			14	14		5	5	2	2		1
Switch Phase												
Minimum Initial (s)	4.0			4.0	4.0		4.0	4.0	4.0	4.0		4.0
Minimum Split (s)	22.0			22.0	22.0		9.0	9.0	28.0	28.0		9.0
Total Split (s)	28.0			28.0	28.0		11.0	11.0	35.0	35.0		11.0
Total Split (%)	28.0%			28.0%	28.0%		11.0%	11.0%	35.0%	35.0%		11.0%
Yellow Time (s)	3.0			3.0	3.0		3.0	3.0	4.0	4.0		3.0
All-Red Time (s)	2.0			2.0	2.0		2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)	0.0			0.0	0.0			0.0	0.0	0.0		
Total Lost Time (s)	5.0			5.0	5.0			5.0	6.0	6.0		
Lead/Lag							Lag	Lag	Lead	Lead		Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes		Yes
Recall Mode	Max			Max	Max		Max	Max	Max	Max		Max
Act Effct Green (s)	23.0			23.0	23.0			36.0	29.0	29.0		
Actuated g/C Ratio	0.23			0.23	0.23			0.36	0.29	0.29		
v/c Ratio	0.63			0.86	0.53			0.65	0.92	0.16		

Lane Group	SBL	SBT	SBR	SBR2	SEL	SET	SER	SER2	NWL	NWT	NWR	NWR2
Lane Configurations												
Volume (vph)	67	708	96	19	41	177	57	4	37	314	108	6
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	2000	1900	1900	1900	2000	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%				0%				0%		
Storage Length (ft)	70		50		50		10		40		10	
Storage Lanes	1		1		1		1		1		1	
Taper Length (ft)	95				60				60			
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.95		0.55		0.94		0.66		0.88		0.63	
Frt			0.850				0.850				0.850	
Flt Protected	0.950				0.950				0.950			
Satd. Flow (prot)	1728	3637	1546	0	1728	1914	1546	0	1728	1914	1546	0
Flt Permitted	0.138				0.224				0.537			
Satd. Flow (perm)	240	3637	845	0	383	1914	1015	0	856	1914	975	0
Right Turn on Red				No				No				No
Satd. Flow (RTOR)												
Link Speed (mph)		30				30				30		
Link Distance (ft)		333				389				552		
Travel Time (s)		7.6				8.8				12.5		
Confl. Peds. (#/hr)	72		57	137	80		42	57	57		72	80
Confl. Bikes (#/hr)			1	1			8	8			67	67
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%				0%		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	95	745	121	0	43	186	64	0	39	331	120	0
Turn Type	pm+pt	NA	Perm		Perm	NA	Perm		Perm	NA	Perm	
Protected Phases	1	6				4				8		
Permitted Phases	6		6		4		4		8		8	
Detector Phase	1	6	6		4	4	4		8	8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Minimum Split (s)	9.0	28.0	28.0		22.0	22.0	22.0		22.0	22.0	22.0	
Total Split (s)	11.0	35.0	35.0		26.0	26.0	26.0		26.0	26.0	26.0	
Total Split (%)	11.0%	35.0%	35.0%		26.0%	26.0%	26.0%		26.0%	26.0%	26.0%	
Yellow Time (s)	3.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.0	6.0		6.0	6.0	6.0		6.0	6.0	6.0	
Lead/Lag	Lag	Lead	Lead									
Lead-Lag Optimize?	Yes	Yes	Yes									
Recall Mode	Max	Max	Max		Max	Max	Max		Max	Max	Max	
Act Effct Green (s)	36.0	29.0	29.0		20.0	20.0	20.0		20.0	20.0	20.0	
Actuated g/C Ratio	0.36	0.29	0.29		0.20	0.20	0.20		0.20	0.20	0.20	
v/c Ratio	0.54	0.71	0.49		0.57	0.49	0.32		0.23	0.87	0.62	

Lane Group	EBT	EBR	EBR2	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR	NBR2	SBL2
Control Delay	38.9			52.9	38.5			47.2	48.8	28.3		
Queue Delay	0.0			0.0	0.0			0.0	0.0	0.0		
Total Delay	38.9			52.9	38.5			47.2	48.8	28.3		
LOS	D			D	D			D	D	C		
Approach Delay	38.9			49.3					47.8			
Approach LOS	D			D					D			
Queue Length 50th (ft)	146			238	73			51	312	21		
Queue Length 95th (ft)	201			#396	m134			#104	#434	50		
Internal Link Dist (ft)	250			121					586			
Turn Bay Length (ft)								155		50		
Base Capacity (vph)	768			440	239			198	1054	285		
Starvation Cap Reductn	0			0	0			0	0	0		
Spillback Cap Reductn	0			0	0			0	0	0		
Storage Cap Reductn	0			0	0			0	0	0		
Reduced v/c Ratio	0.63			0.86	0.53			0.65	0.92	0.16		

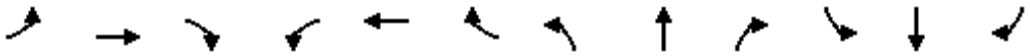
Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green, Master Intersection			
Natural Cycle: 85			
Control Type: Pretimed			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 41.8		Intersection LOS: D	
Intersection Capacity Utilization 89.5%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: Ashland Ave & Lincoln Ave & Belmont Ave



Lane Group	SBL	SBT	SBR	SBR2	SEL	SET	SER	SER2	NWL	NWT	NWR	NWR2
Control Delay	28.7	21.0	23.0		66.8	40.4	39.2		37.6	62.2	51.7	
Queue Delay	0.0	1.6	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay	28.7	22.6	23.0		66.8	40.4	39.2		37.6	62.2	51.7	
LOS	C	C	C		E	D	D		D	E	D	
Approach Delay		23.3				44.0				57.7		
Approach LOS		C				D				E		
Queue Length 50th (ft)	15	81	25		25	106	35		21	206	70	
Queue Length 95th (ft)	56	111	46		#78	175	76		52	#358	#143	
Internal Link Dist (ft)		253				309				472		
Turn Bay Length (ft)	70		50		50		10		40		10	
Base Capacity (vph)	175	1054	245		76	382	203		171	382	195	
Starvation Cap Reductn	0	155	0		0	0	0		0	0	0	
Spillback Cap Reductn	0	0	0		0	0	0		0	0	0	
Storage Cap Reductn	0	0	0		0	0	0		0	0	0	
Reduced v/c Ratio	0.54	0.83	0.49		0.57	0.49	0.32		0.23	0.87	0.62	

Intersection Summary

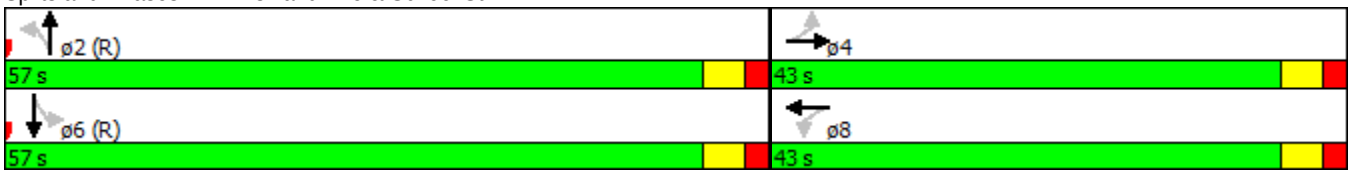


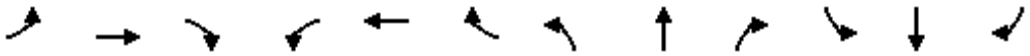
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	121	247	31	4	9	6	12	1019	26	78	876	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	115		0	75		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99			0.98		0.99	1.00		1.00	1.00	
Frt		0.989			0.957			0.996			0.994	
Flt Protected		0.985			0.990		0.950			0.950		
Satd. Flow (prot)	0	1765	0	0	1696	0	1728	3438	0	1728	3424	0
Flt Permitted		0.893			0.938		0.219			0.171		
Satd. Flow (perm)	0	1582	0	0	1602	0	394	3438	0	310	3424	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		273			387			328			273	
Travel Time (s)		6.2			8.8			7.5			6.2	
Confl. Peds. (#/hr)	35		35	35		35	46		18	18		46
Confl. Bikes (#/hr)			2			1			2			9
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	420	0	0	19	0	13	1100	0	82	962	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	33.0	33.0		33.0	33.0		54.0	54.0		54.0	54.0	
Total Split (s)	43.0	43.0		43.0	43.0		57.0	57.0		57.0	57.0	
Total Split (%)	43.0%	43.0%		43.0%	43.0%		57.0%	57.0%		57.0%	57.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		38.0			38.0		52.0	52.0		52.0	52.0	
Actuated g/C Ratio		0.38			0.38		0.52	0.52		0.52	0.52	
v/c Ratio		0.70			0.03		0.06	0.62		0.51	0.54	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		33.6			19.8		11.9	10.5		29.6	17.4	
Queue Delay		0.0			0.0		0.0	0.1		0.0	0.0	
Total Delay		33.6			19.8		11.9	10.6		29.6	17.4	
LOS		C			B		B	B		C	B	
Approach Delay		33.6			19.8			10.6			18.4	
Approach LOS		C			B			B			B	
Queue Length 50th (ft)		223			8		2	76		33	205	
Queue Length 95th (ft)		337			23		m6	193		89	262	
Internal Link Dist (ft)		193			307			248			193	
Turn Bay Length (ft)							115			75		
Base Capacity (vph)		601			608		204	1787		161	1780	
Starvation Cap Reductn		0			0		0	53		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.70			0.03		0.06	0.63		0.51	0.54	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 86 (86%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Pretimed			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 17.5		Intersection LOS: B	
Intersection Capacity Utilization 86.1%		ICU Level of Service E	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Ashland Ave & School St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	408	16	42	441	15	24	64	39	29	145	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		25	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00	0.96		0.97			0.99	
Frt		0.995				0.850		0.958			0.985	
Flt Protected		0.997			0.996			0.991			0.993	
Satd. Flow (prot)	0	3421	0	0	1811	1546	0	1684	0	0	1764	0
Flt Permitted		0.916			0.932			0.905			0.949	
Satd. Flow (perm)	0	3142	0	0	1693	1486	0	1529	0	0	1676	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		457			302			285			333	
Travel Time (s)		10.4			6.9			6.5			7.6	
Confl. Peds. (#/hr)	20		41	41		20	40		40	40		40
Confl. Bikes (#/hr)			6			10			8			2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	471	0	0	508	16	0	133	0	0	207	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	2	2		6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	76.0	76.0		76.0	76.0	76.0	24.0	24.0		24.0	24.0	
Total Split (s)	76.0	76.0		76.0	76.0	76.0	24.0	24.0		24.0	24.0	
Total Split (%)	76.0%	76.0%		76.0%	76.0%	76.0%	24.0%	24.0%		24.0%	24.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0			0.0	
Total Lost Time (s)		4.0			4.0	4.0		4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max	Max	Max	Max		Max	Max	
Act Effct Green (s)		72.0			72.0	72.0		20.0			20.0	
Actuated g/C Ratio		0.72			0.72	0.72		0.20			0.20	
v/c Ratio		0.21			0.42	0.01		0.44			0.62	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		2.2			6.8	4.1		40.3			45.6	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		2.2			6.8	4.1		40.3			45.6	
LOS		A			A	A		D			D	
Approach Delay		2.2			6.8			40.3			45.6	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)		18			111	3		75			121	
Queue Length 95th (ft)		23			164	8		133			199	
Internal Link Dist (ft)		377			222			205			253	
Turn Bay Length (ft)						25						
Base Capacity (vph)		2262			1218	1069		305			335	
Starvation Cap Reductn		0			0	0		0			0	
Spillback Cap Reductn		0			0	0		0			0	
Storage Cap Reductn		0			0	0		0			0	
Reduced v/c Ratio		0.21			0.42	0.01		0.44			0.62	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 36 (36%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 100			
Control Type: Pretimed			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 14.5		Intersection LOS: B	
Intersection Capacity Utilization 146.7%		ICU Level of Service H	
Analysis Period (min) 15			

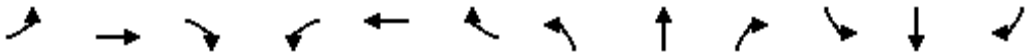
Splits and Phases: 3: Greenview Ave & Belmont Ave

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	38	35	1022	36	36	875
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	90	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				75	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor		0.91	1.00		0.99	
Frt		0.850	0.995			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1728	1546	3431	0	1728	3455
Flt Permitted	0.950				0.208	
Satd. Flow (perm)	1728	1410	3431	0	375	3455
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	134		333			328
Travel Time (s)	3.0		7.6			7.5
Confl. Peds. (#/hr)		40		34	34	
Confl. Bikes (#/hr)		2		1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	40	37	1114	0	38	921
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Detector Phase	8	8	2		1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	21.0	21.0	47.0		9.0	48.0
Total Split (s)	22.0	22.0	68.0		10.0	78.0
Total Split (%)	22.0%	22.0%	68.0%		10.0%	78.0%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?					Yes	
Recall Mode	Max	Max	Max		Max	Max
Act Effct Green (s)	17.0	17.0	63.0		73.0	74.0
Actuated g/C Ratio	0.17	0.17	0.63		0.73	0.74
v/c Ratio	0.14	0.15	0.52		0.11	0.36

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Control Delay	36.7	37.4	4.2		0.9	0.7
Queue Delay	0.0	0.0	0.3		0.0	0.1
Total Delay	36.7	37.4	4.5		0.9	0.8
LOS	D	D	A		A	A
Approach Delay	37.0		4.5			0.8
Approach LOS	D		A			A
Queue Length 50th (ft)	22	20	43		1	7
Queue Length 95th (ft)	52	50	m47		m1	8
Internal Link Dist (ft)	54		253			248
Turn Bay Length (ft)					90	
Base Capacity (vph)	293	239	2161		341	2556
Starvation Cap Reductn	0	0	447		0	548
Spillback Cap Reductn	0	0	0		0	17
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.14	0.15	0.65		0.11	0.46

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 84 (84%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 80			
Control Type: Pretimed			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 4.0		Intersection LOS: A	
Intersection Capacity Utilization 55.0%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 4: Ashland Ave & Melrose St



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	7	10	17	12	91	0	0	139	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	0	7	11	18	13	96	0	0	146	17

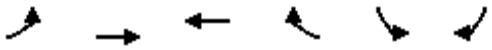
Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	36	108	163
Volume Left (vph)	7	13	0
Volume Right (vph)	18	0	17
Hadj (s)	-0.24	0.04	-0.04
Departure Headway (s)	4.2	4.2	4.0
Degree Utilization, x	0.04	0.13	0.18
Capacity (veh/h)	796	840	876
Control Delay (s)	7.4	7.8	7.9
Approach Delay (s)	7.4	7.8	7.9
Approach LOS	A	A	A

Intersection Summary				
Delay	7.8			
Level of Service	A			
Intersection Capacity Utilization	30.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	0	72	6	19	54	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	76	6	20	57	0
Pedestrians					10	
Lane Width (ft)					11.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	134					
pX, platoon unblocked						
vC, conflicting volume			86		43	10
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			86		43	10
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		94	100
cM capacity (veh/h)			1505		962	1069

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	76	26	57
Volume Left	0	6	57
Volume Right	76	0	0
cSH	1700	1505	962
Volume to Capacity	0.04	0.00	0.06
Queue Length 95th (ft)	0	0	5
Control Delay (s)	0.0	1.8	9.0
Lane LOS		A	A
Approach Delay (s)	0.0	1.8	9.0
Approach LOS			A

Intersection Summary			
Average Delay		3.5	
Intersection Capacity Utilization		17.7%	ICU Level of Service A
Analysis Period (min)		15	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	18	448	463	24	0	18
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	19	472	487	25	0	19
Pedestrians					72	
Lane Width (ft)					11.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					6	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		201	457			
pX, platoon unblocked					0.89	
vC, conflicting volume	585				846	328
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	585				576	328
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				100	97
cM capacity (veh/h)	938				372	636

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	176	314	325	188	19
Volume Left	19	0	0	0	0
Volume Right	0	0	0	25	19
cSH	938	1700	1700	1700	636
Volume to Capacity	0.02	0.18	0.19	0.11	0.03
Queue Length 95th (ft)	2	0	0	0	2
Control Delay (s)	1.1	0.0	0.0	0.0	10.8
Lane LOS	A				B
Approach Delay (s)	0.4		0.0		10.8
Approach LOS					B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	28.9%	ICU Level of Service	A
Analysis Period (min)	15		

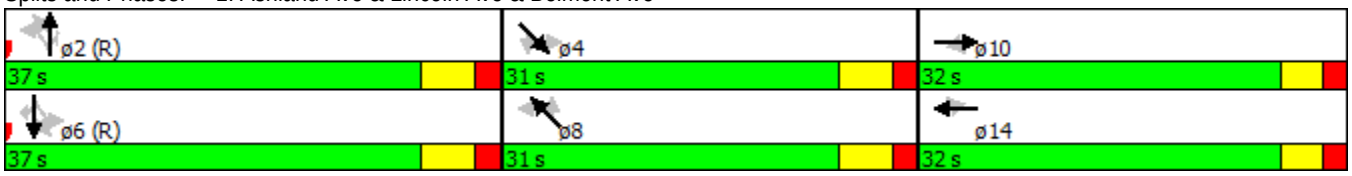
Lane Group	EBT	EBR	EBR2	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR	SBL2	SBL
Lane Configurations												
Volume (vph)	400	115	58	365	67	29	32	79	831	38	10	79
Ideal Flow (vphpl)	2000	1900	1900	2000	1900	1900	1900	1900	2000	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)	0%			0%					0%			
Storage Length (ft)		25			0			155		50		140
Storage Lanes		1			1			1		1		1
Taper Length (ft)								90				50
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Ped Bike Factor		0.67			0.68			0.95		0.71		0.91
Frt		0.850			0.850					0.850		
Flt Protected								0.950				0.950
Satd. Flow (prot)	1914	1546	0	1914	1546	0	0	1728	3637	1546	0	1728
Flt Permitted								0.129				0.139
Satd. Flow (perm)	1914	1038	0	1914	1056	0	0	222	3637	1100	0	230
Right Turn on Red			No			No						
Satd. Flow (RTOR)												
Link Speed (mph)	30			30					30			
Link Distance (ft)	330			658					666			
Travel Time (s)	7.5			15.0					15.1			
Confl. Peds. (#/hr)		104	104		117	59	60	117		120	120	104
Confl. Bikes (#/hr)		6	6		6	6				1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)	0%			0%					0%			
Shared Lane Traffic (%)												
Lane Group Flow (vph)	421	182	0	384	102	0	0	117	875	40	0	94
Turn Type	NA	Perm		NA	Perm		Perm	Perm	NA	Perm	Perm	Perm
Protected Phases	10			14					2			
Permitted Phases		10			14		2	2		2	6	6
Detector Phase	10	10		14	14		2	2	2	2	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0		22.0	22.0		28.0	28.0	28.0	28.0	28.0	28.0
Total Split (s)	32.0	32.0		32.0	32.0		37.0	37.0	37.0	37.0	37.0	37.0
Total Split (%)	32.0%	32.0%		32.0%	32.0%		37.0%	37.0%	37.0%	37.0%	37.0%	37.0%
Yellow Time (s)	3.0	3.0		3.0	3.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			6.0	6.0	6.0		6.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max	Max	Max	Max	Max
Act Effct Green (s)	27.0	27.0		27.0	27.0			31.0	31.0	31.0		31.0
Actuated g/C Ratio	0.27	0.27		0.27	0.27			0.31	0.31	0.31		0.31
v/c Ratio	0.82	0.65		0.74	0.36			1.72	0.78	0.12		1.32

Lane Group	SBT	SBR	SBR2	SEL	SET	SER	SER2	NWL	NWT	NWR	NWR2
Lane Configurations											
Volume (vph)	919	106	10	63	291	115	6	49	270	111	14
Ideal Flow (vphpl)	2000	1900	1900	1900	2000	1900	1900	1900	2000	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11
Grade (%)	0%				0%				0%		
Storage Length (ft)		50		50		10		40		10	
Storage Lanes		1		1		1		1		1	
Taper Length (ft)				60				60			
Lane Util. Factor	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.57		0.81		0.64		0.95		0.46	
Frt		0.850				0.850				0.850	
Flt Protected				0.950				0.950			
Satd. Flow (prot)	3637	1546	0	1728	1914	1546	0	1728	1914	1546	0
Flt Permitted				0.397				0.359			
Satd. Flow (perm)	3637	883	0	585	1914	997	0	619	1914	708	0
Right Turn on Red			No				No				No
Satd. Flow (RTOR)											
Link Speed (mph)	30				30				30		
Link Distance (ft)	333				389				552		
Travel Time (s)	7.6				8.8				12.5		
Confl. Peds. (#/hr)		60	117	120		104	60	60		59	120
Confl. Bikes (#/hr)		10	10			54	54			14	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)	0%				0%				0%		
Shared Lane Traffic (%)											
Lane Group Flow (vph)	967	123	0	66	306	127	0	52	284	132	0
Turn Type	NA	Perm		Perm	NA	Perm		Perm	NA	Perm	
Protected Phases	6				4				8		
Permitted Phases		6		4		4		8		8	
Detector Phase	6	6		4	4	4		8	8	8	
Switch Phase											
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Minimum Split (s)	28.0	28.0		22.0	22.0	22.0		22.0	22.0	22.0	
Total Split (s)	37.0	37.0		31.0	31.0	31.0		31.0	31.0	31.0	
Total Split (%)	37.0%	37.0%		31.0%	31.0%	31.0%		31.0%	31.0%	31.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0		6.0	6.0	6.0	
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	Max	Max		Max	Max	Max		Max	Max	Max	
Act Effct Green (s)	31.0	31.0		25.0	25.0	25.0		25.0	25.0	25.0	
Actuated g/C Ratio	0.31	0.31		0.25	0.25	0.25		0.25	0.25	0.25	
v/c Ratio	0.86	0.45		0.45	0.64	0.51		0.34	0.59	0.75	

Lane Group	EBT	EBR	EBR2	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR	SBL2	SBL
Control Delay	48.5	44.8		38.4	28.8			405.3	37.0	26.0		248.6
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0		0.0
Total Delay	48.5	44.8		38.4	28.8			405.3	37.0	26.0		248.6
LOS	D	D		D	C			F	D	C		F
Approach Delay	47.4			36.4					78.3			
Approach LOS	D			D					E			
Queue Length 50th (ft)	251	103		228	35			~110	265	18		~78
Queue Length 95th (ft)	#405	#185		#337	m81			#224	340	44		#181
Internal Link Dist (ft)	250			578					586			
Turn Bay Length (ft)		25						155		50		140
Base Capacity (vph)	516	280		516	285			68	1127	341		71
Starvation Cap Reductn	0	0		0	0			0	0	0		0
Spillback Cap Reductn	0	0		0	0			0	0	0		0
Storage Cap Reductn	0	0		0	0			0	0	0		0
Reduced v/c Ratio	0.82	0.65		0.74	0.36			1.72	0.78	0.12		1.32

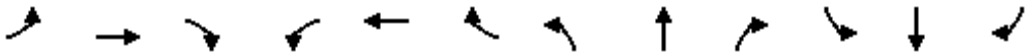
Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green, Master Intersection			
Natural Cycle: 75			
Control Type: Pretimed			
Maximum v/c Ratio: 1.72			
Intersection Signal Delay: 55.4		Intersection LOS: E	
Intersection Capacity Utilization 92.3%		ICU Level of Service F	
Analysis Period (min) 15			
~	Volume exceeds capacity, queue is theoretically infinite.		
	Queue shown is maximum after two cycles.		
#	95th percentile volume exceeds capacity, queue may be longer.		
	Queue shown is maximum after two cycles.		
m	Volume for 95th percentile queue is metered by upstream signal.		

Splits and Phases: 1: Ashland Ave & Lincoln Ave & Belmont Ave



Lane Group	SBT	SBR	SBR2	SEL	SET	SER	SER2	NWL	NWT	NWR	NWR2
Control Delay	41.5	34.1		43.4	40.6	40.7		38.1	39.0	61.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay	41.5	34.1		43.4	40.6	40.7		38.1	39.0	61.5	
LOS	D	C		D	D	D		D	D	E	
Approach Delay	57.2				41.0				45.3		
Approach LOS	E				D				D		
Queue Length 50th (ft)	303	63		36	175	70		27	160	78	
Queue Length 95th (ft)	#395	120		81	267	131		65	246	#177	
Internal Link Dist (ft)	253				309				472		
Turn Bay Length (ft)		50		50		10		40		10	
Base Capacity (vph)	1127	273		146	478	249		154	478	177	
Starvation Cap Reductn	0	0		0	0	0		0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	
Reduced v/c Ratio	0.86	0.45		0.45	0.64	0.51		0.34	0.59	0.75	

Intersection Summary

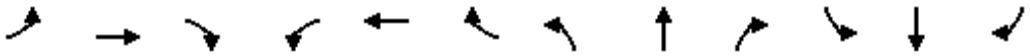


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	163	25	7	22	12	42	962	22	51	1112	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	115		0	75		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.97			0.97		0.99	1.00		1.00	0.99	
Frt		0.988			0.959			0.997			0.993	
Flt Protected		0.983			0.992		0.950			0.950		
Satd. Flow (prot)	0	1754	0	0	1685	0	1728	3442	0	1728	3413	0
Flt Permitted		0.878			0.951		0.152			0.211		
Satd. Flow (perm)	0	1528	0	0	1606	0	273	3442	0	382	3413	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		273			387			328			273	
Travel Time (s)		6.2			8.8			7.5			6.2	
Confl. Peds. (#/hr)	82		70	70		82	100		22	22		100
Confl. Bikes (#/hr)			10			2			3			5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	303	0	0	43	0	44	1036	0	54	1231	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	32.0	32.0		32.0	32.0		53.0	53.0		53.0	53.0	
Total Split (s)	32.0	32.0		32.0	32.0		53.0	53.0		53.0	53.0	
Total Split (%)	37.6%	37.6%		37.6%	37.6%		62.4%	62.4%		62.4%	62.4%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		28.0			28.0		49.0	49.0		49.0	49.0	
Actuated g/C Ratio		0.33			0.33		0.58	0.58		0.58	0.58	
v/c Ratio		0.60			0.08		0.28	0.52		0.25	0.63	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		29.9			20.3		14.9	12.1		12.5	13.7	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		29.9			20.3		14.9	12.1		12.5	13.7	
LOS		C			C		B	B		B	B	
Approach Delay		29.9			20.3			12.2			13.7	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)		134			16		11	162		13	211	
Queue Length 95th (ft)		219			39		35	213		37	275	
Internal Link Dist (ft)		193			307			248			193	
Turn Bay Length (ft)							115			75		
Base Capacity (vph)		503			529		157	1984		220	1967	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.60			0.08		0.28	0.52		0.25	0.63	

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 85			
Offset: 70 (82%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 85			
Control Type: Pretimed			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 15.0		Intersection LOS: B	
Intersection Capacity Utilization 72.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: Ashland Ave & School St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	463	26	67	432	16	18	135	31	24	86	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		25	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.99			0.96			0.97	
Frt		0.993			0.995			0.977			0.987	
Flt Protected		0.997			0.994			0.995			0.990	
Satd. Flow (prot)	0	1793	0	0	3411	0	0	1703	0	0	1764	0
Flt Permitted		0.941			0.818			0.966			0.912	
Satd. Flow (perm)	0	1690	0	0	2797	0	0	1647	0	0	1592	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		658			302			285			333	
Travel Time (s)		15.0			6.9			6.5			7.6	
Confl. Peds. (#/hr)	42		88	88		42	41		73	73		41
Confl. Bikes (#/hr)			16			19			10			3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	552	0	0	543	0	0	194	0	0	128	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	76.0	76.0		76.0	76.0		24.0	24.0		24.0	24.0	
Total Split (s)	76.0	76.0		76.0	76.0		24.0	24.0		24.0	24.0	
Total Split (%)	76.0%	76.0%		76.0%	76.0%		24.0%	24.0%		24.0%	24.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		72.0			72.0			20.0			20.0	
Actuated g/C Ratio		0.72			0.72			0.20			0.20	
v/c Ratio		0.45			0.27			0.59			0.40	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		2.8			5.3			44.6			39.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		2.8			5.3			44.6			39.2	
LOS		A			A			D			D	
Approach Delay		2.8			5.3			44.6			39.2	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)		27			54			113			72	
Queue Length 95th (ft)		m38			74			187			129	
Internal Link Dist (ft)		578			222			205			253	
Turn Bay Length (ft)												
Base Capacity (vph)		1216			2013			329			318	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.45			0.27			0.59			0.40	

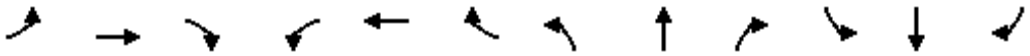
Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 54 (54%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 100			
Control Type: Pretimed			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 12.8		Intersection LOS: B	
Intersection Capacity Utilization 83.3%		ICU Level of Service E	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 3: Greenview Ave & Belmont Ave

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	6	68	958	13	26	1118
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	6	72	1008	14	27	1177
Pedestrians	34		1			40
Lane Width (ft)	11.0		11.0			11.0
Walking Speed (ft/s)	4.0		4.0			4.0
Percent Blockage	3		0			3
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			333			328
pX, platoon unblocked	0.88	0.78			0.78	
vC, conflicting volume	1693	585			1056	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	371	0			505	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	91			97	
cM capacity (veh/h)	498	800			807	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	78	672	350	27	588	588
Volume Left	6	0	0	27	0	0
Volume Right	72	0	14	0	0	0
cSH	763	1700	1700	807	1700	1700
Volume to Capacity	0.10	0.40	0.21	0.03	0.35	0.35
Queue Length 95th (ft)	8	0	0	3	0	0
Control Delay (s)	10.3	0.0	0.0	9.6	0.0	0.0
Lane LOS	B			A		
Approach Delay (s)	10.3	0.0		0.2		
Approach LOS	B					

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	0	38	9	26	29	26	161	0	0	76	12
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	7	0	40	9	27	31	27	169	0	0	80	13

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total (vph)	7	40	67	197	93
Volume Left (vph)	7	0	9	27	0
Volume Right (vph)	0	40	31	0	13
Hadj (s)	0.52	-0.68	-0.23	0.04	-0.06
Departure Headway (s)	5.7	4.5	4.5	4.3	4.3
Degree Utilization, x	0.01	0.05	0.08	0.24	0.11
Capacity (veh/h)	585	737	742	808	793
Control Delay (s)	7.6	6.6	7.9	8.6	7.9
Approach Delay (s)	6.7		7.9	8.6	7.9
Approach LOS	A		A	A	A

Intersection Summary				
Delay	8.1			
Level of Service	A			
Intersection Capacity Utilization	33.6%	ICU Level of Service	A	
Analysis Period (min)	15			

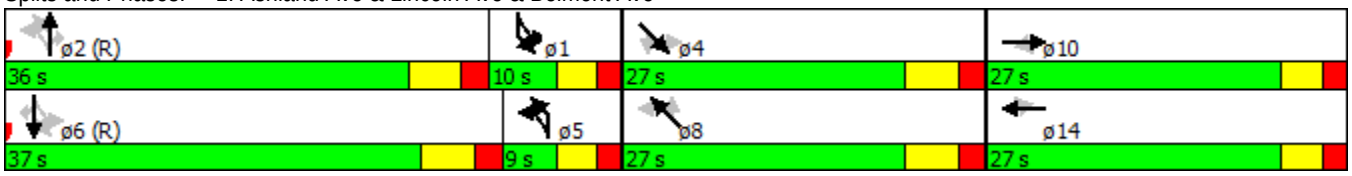
Lane Group	EBT	EBR	EBR2	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR	NBR2	SBL2
Lane Configurations												
Volume (vph)	442	116	59	402	92	30	33	80	888	39	1	47
Ideal Flow (vphpl)	2000	1900	1900	2000	1900	1900	1900	1900	2000	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)	0%			0%					0%			
Storage Length (ft)		25			0			155		50		
Storage Lanes		1			1			1		1		
Taper Length (ft)								90				
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95	0.95
Ped Bike Factor		0.67			0.68					0.55		
Frt		0.850			0.850					0.850		
Flt Protected								0.950				
Satd. Flow (prot)	1914	1546	0	1914	1546	0	0	1728	3637	1546	0	0
Flt Permitted								0.133				
Satd. Flow (perm)	1914	1037	0	1914	1054	0	0	242	3637	852	0	0
Right Turn on Red			No			No					No	
Satd. Flow (RTOR)												
Link Speed (mph)	30			30					30			
Link Distance (ft)	330			201					666			
Travel Time (s)	7.5			4.6					15.1			
Confl. Peds. (#/hr)		104	104		117	59	60	117		120	72	120
Confl. Bikes (#/hr)		6	6		6	6				1	1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)	0%			0%					0%			
Shared Lane Traffic (%)												
Lane Group Flow (vph)	465	184	0	423	129	0	0	119	935	42	0	0
Turn Type	NA	Perm		NA	Perm		pm+pt	pm+pt	NA	Perm		pm+pt
Protected Phases	10			14			5	5	2			1
Permitted Phases		10			14		2	2		2		6
Detector Phase	10	10		14	14		5	5	2	2		1
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0		4.0
Minimum Split (s)	22.0	22.0		22.0	22.0		9.0	9.0	28.0	28.0		9.0
Total Split (s)	27.0	27.0		27.0	27.0		9.0	9.0	36.0	36.0		10.0
Total Split (%)	27.0%	27.0%		27.0%	27.0%		9.0%	9.0%	36.0%	36.0%		10.0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	4.0	4.0		3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	6.0	6.0		
Lead/Lag							Lag	Lag	Lead	Lead		Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes		Yes
Recall Mode	Max	Max		Max	Max		Max	Max	Max	Max		Max
Act Effct Green (s)	22.0	22.0		22.0	22.0			35.0	30.0	30.0		
Actuated g/C Ratio	0.22	0.22		0.22	0.22			0.35	0.30	0.30		
v/c Ratio	1.10	0.81		1.00	0.56			0.83	0.86	0.16		

Lane Group	SBL	SBT	SBR	SBR2	SEL	SET	SER	SER2	NWL	NWT	NWR	NWR2
Lane Configurations												
Volume (vph)	115	975	107	11	64	294	116	7	50	273	136	15
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	2000	1900	1900	1900	2000	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%				0%				0%		
Storage Length (ft)	95		50		50		10		40		10	
Storage Lanes	1		1		1		1		1		1	
Taper Length (ft)	50				60				60			
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.93		0.57		0.89		0.64		0.95		0.65	
Frt			0.850				0.850				0.850	
Flt Protected	0.950				0.950				0.950			
Satd. Flow (prot)	1728	3637	1546	0	1728	1914	1546	0	1728	1914	1546	0
Flt Permitted	0.129				0.334				0.290			
Satd. Flow (perm)	217	3637	883	0	541	1914	983	0	501	1914	1008	0
Right Turn on Red				No				No				No
Satd. Flow (RTOR)												
Link Speed (mph)		30				30				30		
Link Distance (ft)		333				389				552		
Travel Time (s)		7.6				8.8				12.5		
Confl. Peds. (#/hr)	104		60	117	120		104	60	60		117	120
Confl. Bikes (#/hr)			10	10			54	54			14	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%				0%		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	170	1026	125	0	67	309	129	0	53	287	159	0
Turn Type	pm+pt	NA	Perm		Perm	NA	Perm		Perm	NA	Perm	
Protected Phases	1	6				4				8		
Permitted Phases	6		6		4		4		8		8	
Detector Phase	1	6	6		4	4	4		8	8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Minimum Split (s)	9.0	28.0	28.0		22.0	22.0	22.0		22.0	22.0	22.0	
Total Split (s)	10.0	37.0	37.0		27.0	27.0	27.0		27.0	27.0	27.0	
Total Split (%)	10.0%	37.0%	37.0%		27.0%	27.0%	27.0%		27.0%	27.0%	27.0%	
Yellow Time (s)	3.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.0	6.0		6.0	6.0	6.0		6.0	6.0	6.0	
Lead/Lag	Lag	Lead	Lead									
Lead-Lag Optimize?	Yes	Yes	Yes									
Recall Mode	Max	Max	Max		Max	Max	Max		Max	Max	Max	
Act Effct Green (s)	37.0	31.0	31.0		21.0	21.0	21.0		21.0	21.0	21.0	
Actuated g/C Ratio	0.37	0.31	0.31		0.21	0.21	0.21		0.21	0.21	0.21	
v/c Ratio	1.10	0.91	0.46		0.59	0.77	0.63		0.50	0.72	0.75	

Lane Group	EBT	EBR	EBR2	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR	NBR2	SBL2
Control Delay	113.1	64.3		81.7	41.5			75.3	42.3	28.0		
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0		
Total Delay	113.1	64.3		81.7	41.5			75.3	42.3	28.0		
LOS	F	E		F	D			E	D	C		
Approach Delay	99.3			72.3					45.3			
Approach LOS	F			E					D			
Queue Length 50th (ft)	~339	112		~275	75			47	294	20		
Queue Length 95th (ft)	#533	#229		#476	m136			#93	#386	48		
Internal Link Dist (ft)	250			121					586			
Turn Bay Length (ft)		25						155		50		
Base Capacity (vph)	421	228		421	231			144	1091	255		
Starvation Cap Reductn	0	0		0	0			0	0	0		
Spillback Cap Reductn	0	0		0	0			0	0	0		
Storage Cap Reductn	0	0		0	0			0	0	0		
Reduced v/c Ratio	1.10	0.81		1.00	0.56			0.83	0.86	0.16		

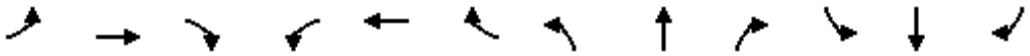
Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green, Master Intersection			
Natural Cycle: 85			
Control Type: Pretimed			
Maximum v/c Ratio: 1.10			
Intersection Signal Delay: 59.8		Intersection LOS: E	
Intersection Capacity Utilization 97.0%		ICU Level of Service F	
Analysis Period (min) 15			
~	Volume exceeds capacity, queue is theoretically infinite.		
	Queue shown is maximum after two cycles.		
#	95th percentile volume exceeds capacity, queue may be longer.		
	Queue shown is maximum after two cycles.		
m	Volume for 95th percentile queue is metered by upstream signal.		

Splits and Phases: 1: Ashland Ave & Lincoln Ave & Belmont Ave



Lane Group	SBL	SBT	SBR	SBR2	SEL	SET	SER	SER2	NWL	NWT	NWR	NWR2
Control Delay	123.9	32.5	22.4		59.2	51.6	50.9		53.7	48.0	60.7	
Queue Delay	0.0	12.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay	123.9	44.5	22.4		59.2	51.6	50.9		53.7	48.0	60.7	
LOS	F	D	C		E	D	D		D	D	E	
Approach Delay		52.6				52.4				52.6		
Approach LOS		D				D				D		
Queue Length 50th (ft)	~74	239	29		39	187	75		30	171	96	
Queue Length 95th (ft)	#211	#438	80		#102	#311	#152		#81	#270	#199	
Internal Link Dist (ft)		253				309				472		
Turn Bay Length (ft)	95		50		50		10		40		10	
Base Capacity (vph)	155	1127	273		113	401	206		105	401	211	
Starvation Cap Reductn	0	105	0		0	0	0		0	0	0	
Spillback Cap Reductn	0	0	0		0	0	0		0	0	0	
Storage Cap Reductn	0	0	0		0	0	0		0	0	0	
Reduced v/c Ratio	1.10	1.00	0.46		0.59	0.77	0.63		0.50	0.72	0.75	

Intersection Summary

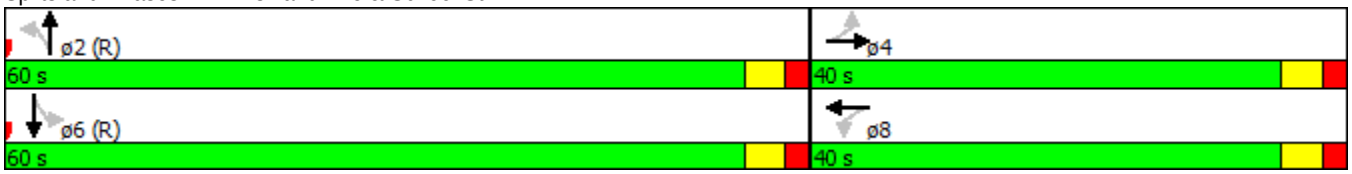


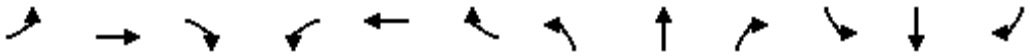
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	163	49	7	22	12	42	1019	47	77	1148	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	115		0	75		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.96			0.96		0.99	1.00		1.00	0.99	
Frt		0.979			0.959			0.993			0.993	
Flt Protected		0.984			0.992		0.950			0.950		
Satd. Flow (prot)	0	1727	0	0	1678	0	1728	3424	0	1728	3411	0
Flt Permitted		0.882			0.946		0.133			0.175		
Satd. Flow (perm)	0	1507	0	0	1591	0	239	3424	0	317	3411	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		273			387			328			273	
Travel Time (s)		6.2			8.8			7.5			6.2	
Confl. Peds. (#/hr)	82		70	70		82	100		22	22		100
Confl. Bikes (#/hr)			10			2			3			5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	329	0	0	43	0	44	1122	0	81	1268	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	33.0	33.0		33.0	33.0		54.0	54.0		54.0	54.0	
Total Split (s)	40.0	40.0		40.0	40.0		60.0	60.0		60.0	60.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%		60.0%	60.0%		60.0%	60.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		35.0			35.0		55.0	55.0		55.0	55.0	
Actuated g/C Ratio		0.35			0.35		0.55	0.55		0.55	0.55	
v/c Ratio		0.62			0.08		0.34	0.60		0.47	0.68	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		33.3			22.3		8.7	4.6		24.6	18.4	
Queue Delay		0.0			0.0		0.0	0.2		0.0	0.0	
Total Delay		33.3			22.3		8.7	4.8		24.6	18.4	
LOS		C			C		A	A		C	B	
Approach Delay		33.3			22.3			5.0			18.8	
Approach LOS		C			C			A			B	
Queue Length 50th (ft)		172			18		4	47		30	287	
Queue Length 95th (ft)		269			42		m6	54		80	362	
Internal Link Dist (ft)		193			307			248			193	
Turn Bay Length (ft)							115			75		
Base Capacity (vph)		527			556		131	1883		174	1876	
Starvation Cap Reductn		0			0		0	183		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.62			0.08		0.34	0.66		0.47	0.68	

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 84 (84%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 14.9	Intersection LOS: B
Intersection Capacity Utilization 82.1%	ICU Level of Service E
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 2: Ashland Ave & School St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	495	38	67	461	16	42	135	31	24	86	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		25	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			1.00			0.96			0.97	
Frt		0.991			0.996			0.980			0.987	
Flt Protected		0.997			0.994			0.990			0.990	
Satd. Flow (prot)	0	1786	0	0	3415	0	0	1707	0	0	1764	0
Flt Permitted		0.942			0.814			0.921			0.894	
Satd. Flow (perm)	0	1686	0	0	2788	0	0	1575	0	0	1563	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		457			302			285			333	
Travel Time (s)		10.4			6.9			6.5			7.6	
Confl. Peds. (#/hr)	42		88	88		42	41		73	73		41
Confl. Bikes (#/hr)			16			19			10			3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	599	0	0	573	0	0	219	0	0	128	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	76.0	76.0		76.0	76.0		24.0	24.0		24.0	24.0	
Total Split (s)	76.0	76.0		76.0	76.0		24.0	24.0		24.0	24.0	
Total Split (%)	76.0%	76.0%		76.0%	76.0%		24.0%	24.0%		24.0%	24.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		72.0			72.0			20.0			20.0	
Actuated g/C Ratio		0.72			0.72			0.20			0.20	
v/c Ratio		0.49			0.29			0.70			0.41	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		6.6			5.4			50.2			39.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		6.6			5.4			50.2			39.5	
LOS		A			A			D			D	
Approach Delay		6.6			5.4			50.2			39.5	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)		41			57			131			72	
Queue Length 95th (ft)		m35			78			#229			129	
Internal Link Dist (ft)		377			222			205			253	
Turn Bay Length (ft)												
Base Capacity (vph)		1213			2007			315			312	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.49			0.29			0.70			0.41	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 42 (42%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 100			
Control Type: Pretimed			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 15.2		Intersection LOS: B	
Intersection Capacity Utilization 83.3%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

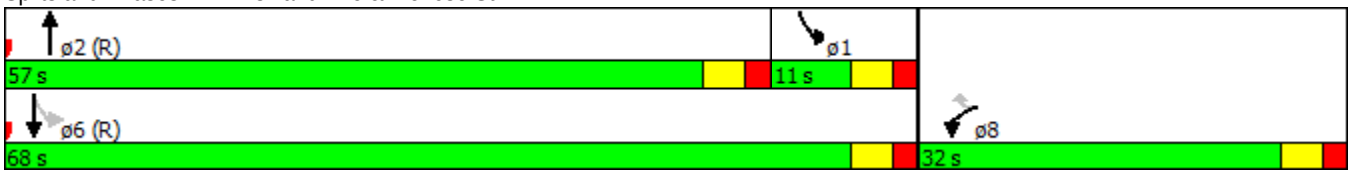
Splits and Phases: 3: Greenview Ave & Belmont Ave

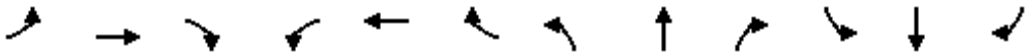
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	124	127	981	73	73	1131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	100	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				75	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor		0.95	1.00		0.99	
Frt		0.850	0.990			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1728	1546	3404	0	1728	3455
Flt Permitted	0.950				0.175	
Satd. Flow (perm)	1728	1468	3404	0	316	3455
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	134		333			328
Travel Time (s)	3.0		7.6			7.5
Confl. Peds. (#/hr)		34		34	34	
Confl. Bikes (#/hr)				15		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	131	134	1110	0	77	1191
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases	8	8			6	
Detector Phase	8	8	2		1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	31.0	31.0	47.0		9.0	48.0
Total Split (s)	32.0	32.0	57.0		11.0	68.0
Total Split (%)	32.0%	32.0%	57.0%		11.0%	68.0%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?					Yes	
Recall Mode	Max	Max	Max		Max	Max
Act Effct Green (s)	27.0	27.0	52.0		63.0	63.0
Actuated g/C Ratio	0.27	0.27	0.52		0.63	0.63
v/c Ratio	0.28	0.34	0.63		0.27	0.55

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Control Delay	30.9	32.3	13.3		4.3	3.3
Queue Delay	0.0	0.0	0.5		0.0	0.2
Total Delay	30.9	32.3	13.8		4.3	3.5
LOS	C	C	B		A	A
Approach Delay	31.6		13.8			3.5
Approach LOS	C		B			A
Queue Length 50th (ft)	66	69	116		5	39
Queue Length 95th (ft)	117	122	185		m7	43
Internal Link Dist (ft)	54		253			248
Turn Bay Length (ft)					100	
Base Capacity (vph)	466	396	1770		283	2176
Starvation Cap Reductn	0	0	277		0	172
Spillback Cap Reductn	0	0	14		0	248
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.28	0.34	0.74		0.27	0.62

Intersection Summary		
Area Type:	Other	
Cycle Length: 100		
Actuated Cycle Length: 100		
Offset: 78 (78%), Referenced to phase 2:NBT and 6:SBTL, Start of Green		
Natural Cycle: 90		
Control Type: Pretimed		
Maximum v/c Ratio: 0.63		
Intersection Signal Delay: 10.7		Intersection LOS: B
Intersection Capacity Utilization 71.5%		ICU Level of Service C
Analysis Period (min) 15		
m Volume for 95th percentile queue is metered by upstream signal.		

Splits and Phases: 4: Ashland Ave & Melrose St





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	9	31	29	26	161	0	0	114	19
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	0	9	33	31	27	169	0	0	120	20

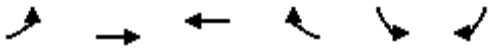
Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	73	197	140
Volume Left (vph)	9	27	0
Volume Right (vph)	31	0	20
Hadj (s)	-0.21	0.04	-0.07
Departure Headway (s)	4.4	4.3	4.2
Degree Utilization, x	0.09	0.23	0.16
Capacity (veh/h)	749	822	834
Control Delay (s)	7.9	8.6	8.0
Approach Delay (s)	7.9	8.6	8.0
Approach LOS	A	A	A

Intersection Summary				
Delay	8.2			
Level of Service	A			
Intersection Capacity Utilization	35.6%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	0	146	12	74	177	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	154	13	78	186	0
Pedestrians					10	
Lane Width (ft)					11.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	134					
pX, platoon unblocked						
vC, conflicting volume			164		113	10
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			164		113	10
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		79	100
cM capacity (veh/h)			1410		874	1069

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	154	91	186
Volume Left	0	13	186
Volume Right	154	0	0
cSH	1700	1410	874
Volume to Capacity	0.09	0.01	0.21
Queue Length 95th (ft)	0	1	20
Control Delay (s)	0.0	1.1	10.2
Lane LOS		A	B
Approach Delay (s)	0.0	1.1	10.2
Approach LOS			B

Intersection Summary			
Average Delay	4.7		
Intersection Capacity Utilization	27.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	38	569	466	48	0	58
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	40	599	491	51	0	61
Pedestrians					59	
Lane Width (ft)					11.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					5	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		201	457			
pX, platoon unblocked	0.97				0.77	0.97
vC, conflicting volume	600				1254	330
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	534				1052	256
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				100	91
cM capacity (veh/h)	970				159	696

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	40	599	327	214	61
Volume Left	40	0	0	0	0
Volume Right	0	0	0	51	61
cSH	970	1700	1700	1700	696
Volume to Capacity	0.04	0.35	0.19	0.13	0.09
Queue Length 95th (ft)	3	0	0	0	7
Control Delay (s)	8.9	0.0	0.0	0.0	10.7
Lane LOS	A				B
Approach Delay (s)	0.6		0.0		10.7
Approach LOS					B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	33.3%	ICU Level of Service	A
Analysis Period (min)	15		

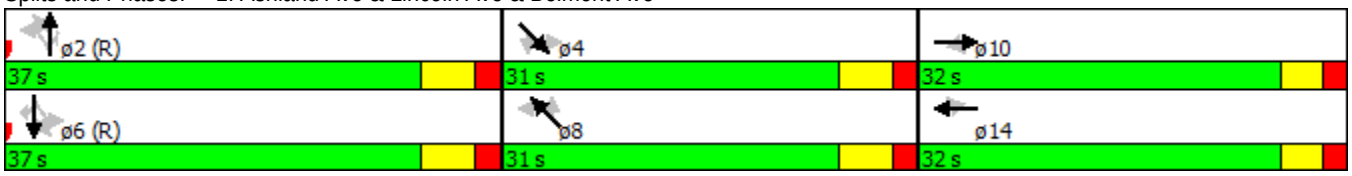
Lane Group	EBT	EBR	EBR2	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR	NBR2	SBL2
Lane Configurations												
Volume (vph)	442	89	66	373	47	46	42	76	901	57	2	17
Ideal Flow (vphpl)	2000	1900	1900	2000	1900	1900	1900	1900	2000	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)	0%			0%					0%			
Storage Length (ft)		25			0			155		50		
Storage Lanes		1			1			1		1		
Taper Length (ft)								90				
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95	0.95
Ped Bike Factor		0.67			0.75			0.94		0.58		
Frt		0.850			0.850					0.850		
Flt Protected								0.950				
Satd. Flow (prot)	1914	1546	0	1914	1546	0	0	1728	3637	1546	0	0
Flt Permitted								0.129				
Satd. Flow (perm)	1914	1030	0	1914	1164	0	0	221	3637	900	0	0
Right Turn on Red			No			No					No	
Satd. Flow (RTOR)												
Link Speed (mph)	30			30					30			
Link Distance (ft)	330			658					666			
Travel Time (s)	7.5			15.0					15.1			
Confl. Peds. (#/hr)		93	103		62	62	102	62		85	93	85
Confl. Bikes (#/hr)		18	18		7	7				1	1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)	0%			0%					0%			
Shared Lane Traffic (%)												
Lane Group Flow (vph)	465	163	0	393	97	0	0	124	948	62	0	0
Turn Type	NA	Perm		NA	Perm		Perm	Perm	NA	Perm		Perm
Protected Phases	10			14					2			
Permitted Phases		10			14		2	2		2		6
Detector Phase	10	10		14	14		2	2	2	2		6
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0		4.0
Minimum Split (s)	22.0	22.0		22.0	22.0		28.0	28.0	28.0	28.0		28.0
Total Split (s)	32.0	32.0		32.0	32.0		37.0	37.0	37.0	37.0		37.0
Total Split (%)	32.0%	32.0%		32.0%	32.0%		37.0%	37.0%	37.0%	37.0%		37.0%
Yellow Time (s)	3.0	3.0		3.0	3.0		4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0			6.0	6.0	6.0		
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max	Max	Max		Max
Act Effct Green (s)	27.0	27.0		27.0	27.0			31.0	31.0	31.0		
Actuated g/C Ratio	0.27	0.27		0.27	0.27			0.31	0.31	0.31		
v/c Ratio	0.90	0.59		0.76	0.31			1.82	0.84	0.22		

Lane Group	SBL	SBT	SBR	SBR2	SEL	SET	SER	SER2	NWL	NWT	NWR	NWR2
Lane Configurations												
Volume (vph)	69	882	140	20	81	252	84	16	60	277	117	15
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	2000	1900	1900	1900	2000	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%				0%				0%		
Storage Length (ft)	140		50		50		10		40		10	
Storage Lanes	1		1		1		1		1		1	
Taper Length (ft)	50				60				60			
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.94		0.60		0.87		0.46		0.90		0.52	
Frt			0.850				0.850				0.850	
Flt Protected	0.950				0.950				0.950			
Satd. Flow (prot)	1728	3637	1546	0	1728	1914	1546	0	1728	1914	1546	0
Flt Permitted	0.129				0.383				0.430			
Satd. Flow (perm)	221	3637	927	0	606	1914	715	0	700	1914	809	0
Right Turn on Red				No				No				No
Satd. Flow (RTOR)												
Link Speed (mph)		30				30				30		
Link Distance (ft)		333				389				552		
Travel Time (s)		7.6				8.8				12.5		
Confl. Peds. (#/hr)	93		102	62	85		103	102	62		62	85
Confl. Bikes (#/hr)			10	10							4	4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%				0%		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	91	928	168	0	85	265	105	0	63	292	139	0
Turn Type	Perm	NA	Perm		Perm	NA	Perm		Perm	NA	Perm	
Protected Phases		6				4				8		
Permitted Phases	6		6		4		4		8		8	
Detector Phase	6	6	6		4	4	4		8	8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Minimum Split (s)	28.0	28.0	28.0		22.0	22.0	22.0		22.0	22.0	22.0	
Total Split (s)	37.0	37.0	37.0		31.0	31.0	31.0		31.0	31.0	31.0	
Total Split (%)	37.0%	37.0%	37.0%		31.0%	31.0%	31.0%		31.0%	31.0%	31.0%	
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0	6.0		6.0	6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max		Max	Max	Max		Max	Max	Max	
Act Effct Green (s)	31.0	31.0	31.0		25.0	25.0	25.0		25.0	25.0	25.0	
Actuated g/C Ratio	0.31	0.31	0.31		0.25	0.25	0.25		0.25	0.25	0.25	
v/c Ratio	1.34	0.82	0.59		0.56	0.55	0.59		0.36	0.61	0.69	

Lane Group	EBT	EBR	EBR2	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR	NBR2	SBL2
Control Delay	57.9	41.6		37.8	26.6			447.7	40.4	28.3		
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0		
Total Delay	57.9	41.6		37.8	26.6			447.7	40.4	28.3		
LOS	E	D		D	C			F	D	C		
Approach Delay	53.7			35.6					84.3			
Approach LOS	D			D					F			
Queue Length 50th (ft)	286	90		203	34			~120	295	29		
Queue Length 95th (ft)	#469	162		#365	m62			#236	376	64		
Internal Link Dist (ft)	250			578					586			
Turn Bay Length (ft)		25						155		50		
Base Capacity (vph)	516	278		516	314			68	1127	279		
Starvation Cap Reductn	0	0		0	0			0	0	0		
Spillback Cap Reductn	0	0		0	0			0	0	0		
Storage Cap Reductn	0	0		0	0			0	0	0		
Reduced v/c Ratio	0.90	0.59		0.76	0.31			1.82	0.84	0.22		

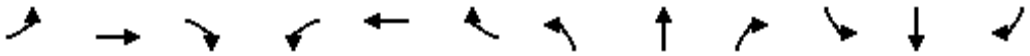
Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green, Master Intersection			
Natural Cycle: 90			
Control Type: Pretimed			
Maximum v/c Ratio: 1.82			
Intersection Signal Delay: 57.8		Intersection LOS: E	
Intersection Capacity Utilization 94.3%		ICU Level of Service F	
Analysis Period (min) 15			
~	Volume exceeds capacity, queue is theoretically infinite.		
	Queue shown is maximum after two cycles.		
#	95th percentile volume exceeds capacity, queue may be longer.		
	Queue shown is maximum after two cycles.		
m	Volume for 95th percentile queue is metered by upstream signal.		

Splits and Phases: 1: Ashland Ave & Lincoln Ave & Belmont Ave



Lane Group	SBL	SBT	SBR	SBR2	SEL	SET	SER	SER2	NWL	NWT	NWR	NWR2
Control Delay	256.0	39.3	38.8		49.2	37.8	48.4		38.0	39.6	53.5	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay	256.0	39.3	38.8		49.2	37.8	48.4		38.0	39.6	53.5	
LOS	F	D	D		D	D	D		D	D	D	
Approach Delay		55.9				42.4				43.3		
Approach LOS		E				D				D		
Queue Length 50th (ft)	~76	287	90		47	148	59		33	165	80	
Queue Length 95th (ft)	#177	366	163		#110	229	#128		74	254	#172	
Internal Link Dist (ft)		253				309				472		
Turn Bay Length (ft)	140		50		50		10		40		10	
Base Capacity (vph)	68	1127	287		151	478	178		175	478	202	
Starvation Cap Reductn	0	0	0		0	0	0		0	0	0	
Spillback Cap Reductn	0	0	0		0	0	0		0	0	0	
Storage Cap Reductn	0	0	0		0	0	0		0	0	0	
Reduced v/c Ratio	1.34	0.82	0.59		0.56	0.55	0.59		0.36	0.61	0.69	

Intersection Summary

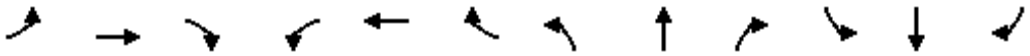


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	58	23	6	12	21	17	1077	13	67	1101	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	115		0	75		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.96			0.95		0.99	1.00		1.00	1.00	
Frt		0.977			0.928			0.998			0.997	
Flt Protected		0.981			0.993		0.950			0.950		
Satd. Flow (prot)	0	1720	0	0	1599	0	1728	3447	0	1728	3439	0
Flt Permitted		0.886			0.971		0.166			0.176		
Satd. Flow (perm)	0	1511	0	0	1553	0	298	3447	0	320	3439	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		273			387			328			273	
Travel Time (s)		6.2			8.8			7.5			6.2	
Confl. Peds. (#/hr)	81		66	66		81	87		7	7		87
Confl. Bikes (#/hr)			10			1			1			3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	140	0	0	41	0	18	1148	0	71	1181	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	32.0	32.0		32.0	32.0		53.0	53.0		53.0	53.0	
Total Split (s)	32.0	32.0		32.0	32.0		53.0	53.0		53.0	53.0	
Total Split (%)	37.6%	37.6%		37.6%	37.6%		62.4%	62.4%		62.4%	62.4%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		28.0			28.0		49.0	49.0		49.0	49.0	
Actuated g/C Ratio		0.33			0.33		0.58	0.58		0.58	0.58	
v/c Ratio		0.28			0.08		0.11	0.58		0.39	0.60	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		23.0			20.3		10.0	12.9		17.6	13.2	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		23.0			20.3		10.0	12.9		17.6	13.2	
LOS		C			C		A	B		B	B	
Approach Delay		23.0			20.3			12.8			13.4	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)		55			15		4	188		19	197	
Queue Length 95th (ft)		101			37		15	246		55	256	
Internal Link Dist (ft)		193			307			248			193	
Turn Bay Length (ft)							115			75		
Base Capacity (vph)		497			511		171	1987		184	1982	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.28			0.08		0.11	0.58		0.39	0.60	

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 85			
Offset: 70 (82%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 85			
Control Type: Pretimed			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 13.8		Intersection LOS: B	
Intersection Capacity Utilization 77.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 2: Ashland Ave & School St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	552	28	54	431	23	25	147	38	30	103	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		25	0		25	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.93		1.00	0.93		0.98			0.99	
Frt			0.850			0.850		0.976			0.990	
Flt Protected		0.997			0.994			0.994			0.990	
Satd. Flow (prot)	0	1813	1546	0	1808	1546	0	1724	0	0	1776	0
Flt Permitted		0.958			0.890			0.960			0.850	
Satd. Flow (perm)	0	1740	1431	0	1615	1442	0	1661	0	0	1508	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		658			302			285			333	
Travel Time (s)		15.0			6.9			6.5			7.6	
Confl. Peds. (#/hr)	66		67	67		66	20		41	41		20
Confl. Bikes (#/hr)			18			5			3			5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	615	29	0	511	24	0	221	0	0	151	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	76.0	76.0	76.0	76.0	76.0	76.0	24.0	24.0		24.0	24.0	
Total Split (s)	76.0	76.0	76.0	76.0	76.0	76.0	24.0	24.0		24.0	24.0	
Total Split (%)	76.0%	76.0%	76.0%	76.0%	76.0%	76.0%	24.0%	24.0%		24.0%	24.0%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0			0.0	
Total Lost Time (s)		4.0	4.0		4.0	4.0		4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max		Max	Max	
Act Effct Green (s)		72.0	72.0		72.0	72.0		20.0			20.0	
Actuated g/C Ratio		0.72	0.72		0.72	0.72		0.20			0.20	
v/c Ratio		0.49	0.03		0.44	0.02		0.67			0.50	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		2.6	0.7		7.2	4.1		47.8			42.2	
Queue Delay		0.4	0.0		0.0	0.0		0.0			0.0	
Total Delay		3.0	0.7		7.2	4.1		47.8			42.2	
LOS		A	A		A	A		D			D	
Approach Delay		2.9			7.0			47.8			42.2	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)		16	1		115	4		131			86	
Queue Length 95th (ft)		m21	m1		171	10		213			150	
Internal Link Dist (ft)		578			222			205			253	
Turn Bay Length (ft)			25			25						
Base Capacity (vph)		1252	1030		1162	1038		332			301	
Starvation Cap Reductn		238	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.61	0.03		0.44	0.02		0.67			0.50	

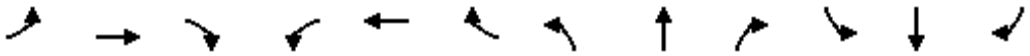
Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 54 (54%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 100			
Control Type: Pretimed			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 14.6		Intersection LOS: B	
Intersection Capacity Utilization 146.7%		ICU Level of Service H	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 3: Greenview Ave & Belmont Ave

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	8	51	1056	8	10	1120
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	8	54	1112	8	11	1179
Pedestrians	42		3			5
Lane Width (ft)	11.0		11.0			11.0
Walking Speed (ft/s)	4.0		4.0			4.0
Percent Blockage	3		0			0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			333			328
pX, platoon unblocked	0.86	0.75			0.75	
vC, conflicting volume	1771	607			1162	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	421	0			560	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	93			99	
cM capacity (veh/h)	464	790			739	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	62	741	379	11	589	589
Volume Left	8	0	0	11	0	0
Volume Right	54	0	8	0	0	0
cSH	721	1700	1700	739	1700	1700
Volume to Capacity	0.09	0.44	0.22	0.01	0.35	0.35
Queue Length 95th (ft)	7	0	0	1	0	0
Control Delay (s)	10.5	0.0	0.0	9.9	0.0	0.0
Lane LOS	B			A		
Approach Delay (s)	10.5	0.0		0.1		
Approach LOS	B					

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	9	0	26	28	26	18	19	183	0	0	84	4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	9	0	27	29	27	19	20	193	0	0	88	4

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total (vph)	9	27	76	213	93
Volume Left (vph)	9	0	29	20	0
Volume Right (vph)	0	27	19	0	4
Hadj (s)	0.52	-0.68	-0.06	0.04	-0.01
Departure Headway (s)	5.8	4.6	4.7	4.3	4.4
Degree Utilization, x	0.02	0.03	0.10	0.25	0.11
Capacity (veh/h)	578	726	711	808	780
Control Delay (s)	7.7	6.6	8.2	8.8	8.0
Approach Delay (s)	6.8		8.2	8.8	8.0
Approach LOS	A		A	A	A

Intersection Summary				
Delay	8.3			
Level of Service	A			
Intersection Capacity Utilization	35.3%	ICU Level of Service	A	
Analysis Period (min)	15			

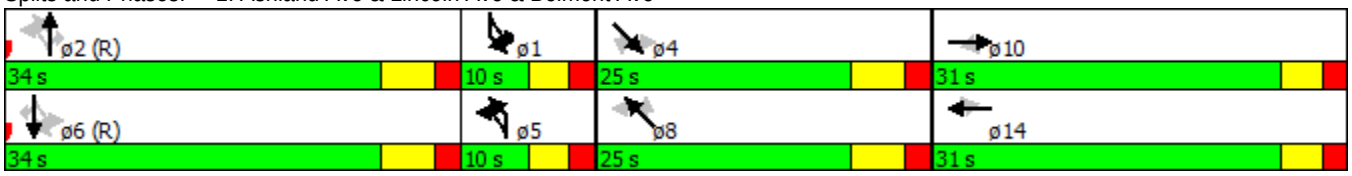
Lane Group	EBT	EBR	EBR2	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR	NBR2	SBL2
Lane Configurations												
Volume (vph)	486	90	67	419	77	47	43	77	970	58	3	61
Ideal Flow (vphpl)	2000	1900	1900	2000	1900	1900	1900	1900	2000	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)	0%			0%					0%			
Storage Length (ft)		25			0			155		50		
Storage Lanes		1			1			1		1		
Taper Length (ft)								90				
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95	0.95
Ped Bike Factor		0.67			0.75					0.58		
Frt		0.850			0.850					0.850		
Flt Protected								0.950				
Satd. Flow (prot)	1914	1546	0	1914	1546	0	0	1728	3637	1546	0	0
Flt Permitted								0.143				
Satd. Flow (perm)	1914	1030	0	1914	1164	0	0	260	3637	900	0	0
Right Turn on Red			No			No					No	
Satd. Flow (RTOR)												
Link Speed (mph)	30			30					30			
Link Distance (ft)	330			201					666			
Travel Time (s)	7.5			4.6					15.1			
Confl. Peds. (#/hr)		93	103		62	62	102	62		85	93	85
Confl. Bikes (#/hr)		18	18		7	7				1	1	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)	0%			0%					0%			
Shared Lane Traffic (%)												
Lane Group Flow (vph)	506	164	0	436	129	0	0	125	1010	63	0	0
Turn Type	NA	Perm		NA	Perm		pm+pt	pm+pt	NA	Perm		pm+pt
Protected Phases	10			14			5	5	2			1
Permitted Phases		10			14		2	2		2		6
Detector Phase	10	10		14	14		5	5	2	2		1
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0		4.0
Minimum Split (s)	22.0	22.0		22.0	22.0		9.0	9.0	28.0	28.0		9.0
Total Split (s)	31.0	31.0		31.0	31.0		10.0	10.0	34.0	34.0		10.0
Total Split (%)	31.0%	31.0%		31.0%	31.0%		10.0%	10.0%	34.0%	34.0%		10.0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	4.0	4.0		3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	6.0	6.0		
Lead/Lag							Lag	Lag	Lead	Lead		Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes		Yes
Recall Mode	Max	Max		Max	Max		Max	Max	Max	Max		Max
Act Effct Green (s)	26.0	26.0		26.0	26.0			34.0	28.0	28.0		
Actuated g/C Ratio	0.26	0.26		0.26	0.26			0.34	0.28	0.28		
v/c Ratio	1.02	0.61		0.88	0.43			0.78	0.99	0.25		

Lane Group	SBL	SBT	SBR	SBR2	SEL	SET	SER	SER2	NWL	NWT	NWR	NWR2
Lane Configurations												
Volume (vph)	113	948	142	21	82	254	85	17	61	280	148	16
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	2000	1900	1900	1900	2000	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%				0%				0%		
Storage Length (ft)	95		50		50		10		40		10	
Storage Lanes	1		1		1		1		1		1	
Taper Length (ft)	50				60				60			
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			0.61		0.88		0.44		0.83		0.52	
Frt			0.850				0.850				0.850	
Flt Protected	0.950				0.950				0.950			
Satd. Flow (prot)	1728	3637	1546	0	1728	1914	1546	0	1728	1914	1546	0
Flt Permitted	0.143				0.285				0.345			
Satd. Flow (perm)	260	3637	950	0	454	1914	686	0	524	1914	806	0
Right Turn on Red				No				No				No
Satd. Flow (RTOR)												
Link Speed (mph)		30				30				30		
Link Distance (ft)		333				389				552		
Travel Time (s)		7.6				8.8				12.5		
Confl. Peds. (#/hr)	93		102	62	85		103	102	102		62	85
Confl. Bikes (#/hr)							10	10			4	4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%				0%		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	182	988	170	0	85	265	107	0	64	292	171	0
Turn Type	pm+pt	NA	Perm		Perm	NA	Perm		Perm	NA	Perm	
Protected Phases	1	6				4				8		
Permitted Phases	6		6		4		4		8		8	
Detector Phase	1	6	6		4	4	4		8	8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Minimum Split (s)	9.0	28.0	28.0		22.0	22.0	22.0		22.0	22.0	22.0	
Total Split (s)	10.0	34.0	34.0		25.0	25.0	25.0		25.0	25.0	25.0	
Total Split (%)	10.0%	34.0%	34.0%		25.0%	25.0%	25.0%		25.0%	25.0%	25.0%	
Yellow Time (s)	3.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.0	6.0		6.0	6.0	6.0		6.0	6.0	6.0	
Lead/Lag	Lag	Lead	Lead									
Lead-Lag Optimize?	Yes	Yes	Yes									
Recall Mode	Max	Max	Max		Max	Max	Max		Max	Max	Max	
Act Effct Green (s)	34.0	28.0	28.0		19.0	19.0	19.0		19.0	19.0	19.0	
Actuated g/C Ratio	0.34	0.28	0.28		0.19	0.19	0.19		0.19	0.19	0.19	
v/c Ratio	1.13	0.97	0.64		0.99	0.73	0.82		0.65	0.80	1.12	

Lane Group	EBT	EBR	EBR2	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR	NBR2	SBL2
Control Delay	83.0	43.9		50.5	31.3			66.1	63.2	31.2		
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0		
Total Delay	83.0	43.9		50.5	31.3			66.1	63.2	31.2		
LOS	F	D		D	C			E	E	C		
Approach Delay	73.4			46.1					61.8			
Approach LOS	E			D					E			
Queue Length 50th (ft)	~332	92		272	71			51	337	31		
Queue Length 95th (ft)	#542	165		m#436	m123			#128	#479	68		
Internal Link Dist (ft)	250			121					586			
Turn Bay Length (ft)		25						155		50		
Base Capacity (vph)	497	267		497	302			161	1018	252		
Starvation Cap Reductn	0	0		0	0			0	0	0		
Spillback Cap Reductn	0	0		0	0			0	0	0		
Storage Cap Reductn	0	0		0	0			0	0	0		
Reduced v/c Ratio	1.02	0.61		0.88	0.43			0.78	0.99	0.25		

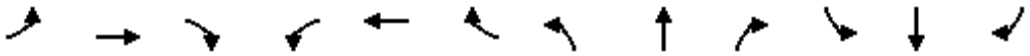
Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green, Master Intersection			
Natural Cycle: 95			
Control Type: Pretimed			
Maximum v/c Ratio: 1.13			
Intersection Signal Delay: 76.2		Intersection LOS: E	
Intersection Capacity Utilization 102.0%		ICU Level of Service G	
Analysis Period (min) 15			
~	Volume exceeds capacity, queue is theoretically infinite.		
	Queue shown is maximum after two cycles.		
#	95th percentile volume exceeds capacity, queue may be longer.		
	Queue shown is maximum after two cycles.		
m	Volume for 95th percentile queue is metered by upstream signal.		

Splits and Phases: 1: Ashland Ave & Lincoln Ave & Belmont Ave



Lane Group	SBL	SBT	SBR	SBR2	SEL	SET	SER	SER2	NWL	NWT	NWR	NWR2
Control Delay	146.8	58.4	44.2		138.2	51.2	83.9		68.8	56.9	147.5	
Queue Delay	0.0	41.5	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay	146.8	99.8	44.2		138.2	51.2	83.9		68.8	56.9	147.5	
LOS	F	F	D		F	D	F		E	E	F	
Approach Delay		99.1				75.0				87.7		
Approach LOS		F				E				F		
Queue Length 50th (ft)	~92	327	95		54	160	66		38	179	~126	
Queue Length 95th (ft)	#222	#462	#175		#153	#268	#164		#106	#311	#258	
Internal Link Dist (ft)		253				309				472		
Turn Bay Length (ft)	95		50		50		10		40		10	
Base Capacity (vph)	161	1018	266		86	363	130		99	363	153	
Starvation Cap Reductn	0	210	0		0	0	0		0	0	0	
Spillback Cap Reductn	0	0	0		0	0	0		0	0	0	
Storage Cap Reductn	0	0	0		0	0	0		0	0	0	
Reduced v/c Ratio	1.13	1.22	0.64		0.99	0.73	0.82		0.65	0.80	1.12	

Intersection Summary

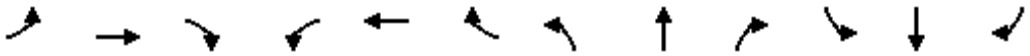


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	58	53	6	12	21	17	1146	35	77	1164	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	115		0	75		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.95			0.98		0.99	1.00		1.00	1.00	
Frt		0.956			0.928			0.996			0.997	
Flt Protected		0.984			0.993		0.950			0.950		
Satd. Flow (prot)	0	1661	0	0	1657	0	1728	3438	0	1728	3438	0
Flt Permitted		0.895			0.963		0.163			0.164		
Satd. Flow (perm)	0	1472	0	0	1595	0	293	3438	0	298	3438	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		273			387			328			273	
Travel Time (s)		6.2			8.8			7.5			6.2	
Confl. Peds. (#/hr)	81		66	66		8	87		7	7		87
Confl. Bikes (#/hr)			10			1			1			3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	172	0	0	41	0	18	1243	0	81	1247	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	33.0	33.0		33.0	33.0		54.0	54.0		54.0	54.0	
Total Split (s)	33.0	33.0		33.0	33.0		67.0	67.0		67.0	67.0	
Total Split (%)	33.0%	33.0%		33.0%	33.0%		67.0%	67.0%		67.0%	67.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		28.0			28.0		62.0	62.0		62.0	62.0	
Actuated g/C Ratio		0.28			0.28		0.62	0.62		0.62	0.62	
v/c Ratio		0.42			0.09		0.10	0.58		0.44	0.59	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		33.1			27.4		9.4	12.7		19.3	12.7	
Queue Delay		0.0			0.0		0.0	18.3		0.0	0.0	
Total Delay		33.1			27.4		9.4	31.0		19.3	12.7	
LOS		C			C		A	C		B	B	
Approach Delay		33.1			27.4			30.6			13.1	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)		89			19		4	227		25	228	
Queue Length 95th (ft)		152			46		15	287		70	288	
Internal Link Dist (ft)		193			307			248			193	
Turn Bay Length (ft)							115			75		
Base Capacity (vph)		412			446		181	2131		184	2131	
Starvation Cap Reductn		0			0		0	909		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.42			0.09		0.10	1.02		0.44	0.59	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 99 (99%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Pretimed			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 22.4		Intersection LOS: C	
Intersection Capacity Utilization 80.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 2: Ashland Ave & School St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	589	42	54	466	23	55	147	38	30	103	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		25	0		25	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.93		1.00	0.93		0.98			0.99	
Frt			0.850			0.850		0.979			0.990	
Flt Protected		0.997			0.995			0.989			0.990	
Satd. Flow (prot)	0	1813	1546	0	1809	1546	0	1726	0	0	1776	0
Flt Permitted		0.958			0.890			0.865			0.834	
Satd. Flow (perm)	0	1740	1431	0	1616	1442	0	1503	0	0	1481	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		457			302			285			333	
Travel Time (s)		10.4			6.9			6.5			7.6	
Confl. Peds. (#/hr)	66		67	67		66	20		41	41		20
Confl. Bikes (#/hr)			18			5			3			5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	654	44	0	548	24	0	253	0	0	151	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	76.0	76.0	76.0	76.0	76.0	76.0	24.0	24.0		24.0	24.0	
Total Split (s)	76.0	76.0	76.0	76.0	76.0	76.0	24.0	24.0		24.0	24.0	
Total Split (%)	76.0%	76.0%	76.0%	76.0%	76.0%	76.0%	24.0%	24.0%		24.0%	24.0%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0			0.0	
Total Lost Time (s)		4.0	4.0		4.0	4.0		4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max		Max	Max	
Act Effct Green (s)		72.0	72.0		72.0	72.0		20.0			20.0	
Actuated g/C Ratio		0.72	0.72		0.72	0.72		0.20			0.20	
v/c Ratio		0.52	0.04		0.47	0.02		0.84			0.51	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		4.9	2.3		7.5	4.1		64.0			42.6	
Queue Delay		0.1	0.0		0.0	0.0		0.0			0.0	
Total Delay		5.0	2.3		7.5	4.1		64.0			42.6	
LOS		A	A		A	A		E			D	
Approach Delay		4.8			7.4			64.0			42.6	
Approach LOS		A			A			E			D	
Queue Length 50th (ft)		54	3		127	4		156			86	
Queue Length 95th (ft)		m53	m4		190	10		#292			151	
Internal Link Dist (ft)		377			222			205			253	
Turn Bay Length (ft)			25			25						
Base Capacity (vph)		1252	1030		1163	1038		300			296	
Starvation Cap Reductn		81	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.56	0.04		0.47	0.02		0.84			0.51	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 42 (42%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 100			
Control Type: Pretimed			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 18.0		Intersection LOS: B	
Intersection Capacity Utilization 146.7%		ICU Level of Service H	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

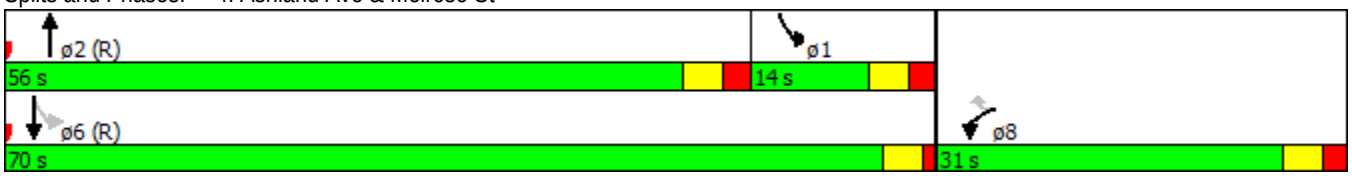
Splits and Phases: 3: Greenview Ave & Belmont Ave

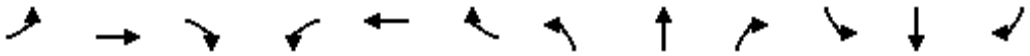
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	152	123	1075	90	90	1133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	90	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				75	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor		0.98	0.99		0.99	
Frt		0.850	0.988			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1728	1546	3392	0	1728	3455
Flt Permitted	0.950				0.136	
Satd. Flow (perm)	1728	1516	3392	0	246	3455
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	134		333			328
Travel Time (s)	3.0		7.6			7.5
Confl. Peds. (#/hr)		5		42	42	
Confl. Bikes (#/hr)		2		12		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	160	129	1227	0	95	1193
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases	8	8			6	
Detector Phase	8	8	2		1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	31.0	31.0	47.0		9.0	48.0
Total Split (s)	31.0	31.0	56.0		14.0	70.0
Total Split (%)	30.7%	30.7%	55.4%		13.9%	69.3%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?					Yes	
Recall Mode	Max	Max	Max		Max	Max
Act Effct Green (s)	26.0	26.0	51.0		65.0	66.0
Actuated g/C Ratio	0.26	0.26	0.50		0.64	0.65
v/c Ratio	0.36	0.33	0.72		0.33	0.53

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Control Delay	33.5	33.3	22.4		17.0	10.3
Queue Delay	0.0	0.0	49.1		0.0	7.3
Total Delay	33.5	33.3	71.5		17.0	17.6
LOS	C	C	E		B	B
Approach Delay	33.5		71.5			17.6
Approach LOS	C		E			B
Queue Length 50th (ft)	85	68	309		21	193
Queue Length 95th (ft)	144	121	390		40	243
Internal Link Dist (ft)	54		253			248
Turn Bay Length (ft)					90	
Base Capacity (vph)	444	390	1712		290	2257
Starvation Cap Reductn	0	0	611		0	1016
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.36	0.33	1.11		0.33	0.96

Intersection Summary			
Area Type:	Other		
Cycle Length: 101			
Actuated Cycle Length: 101			
Offset: 69 (68%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Pretimed			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 42.8		Intersection LOS: D	
Intersection Capacity Utilization 72.5%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 4: Ashland Ave & Melrose St





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	28	32	18	19	183	0	0	110	13
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	0	29	34	19	20	193	0	0	116	14

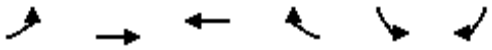
Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	82	213	129
Volume Left (vph)	29	20	0
Volume Right (vph)	19	0	14
Hadj (s)	-0.05	0.04	-0.05
Departure Headway (s)	4.6	4.3	4.3
Degree Utilization, x	0.11	0.25	0.15
Capacity (veh/h)	721	819	808
Control Delay (s)	8.1	8.7	8.1
Approach Delay (s)	8.1	8.7	8.1
Approach LOS	A	A	A

Intersection Summary				
Delay	8.4			
Level of Service	A			
Intersection Capacity Utilization	43.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	0	180	15	59	216	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	189	16	62	227	0
Pedestrians					10	
Lane Width (ft)					11.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	134					
pX, platoon unblocked						
vC, conflicting volume			199		104	10
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			199		104	10
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		74	100
cM capacity (veh/h)			1368		882	1069

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	189	78	227
Volume Left	0	16	227
Volume Right	189	0	0
cSH	1700	1368	882
Volume to Capacity	0.11	0.01	0.26
Queue Length 95th (ft)	0	1	26
Control Delay (s)	0.0	1.6	10.5
Lane LOS		A	B
Approach Delay (s)	0.0	1.6	10.5
Approach LOS			B

Intersection Summary			
Average Delay	5.1		
Intersection Capacity Utilization	29.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	40	663	471	60	0	72
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	42	698	496	63	0	76
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		201	457			
pX, platoon unblocked					0.71	
vC, conflicting volume	559				1309	279
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	559				1231	279
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				100	90
cM capacity (veh/h)	1015				117	724

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	42	698	331	228	76
Volume Left	42	0	0	0	0
Volume Right	0	0	0	63	76
cSH	1015	1700	1700	1700	724
Volume to Capacity	0.04	0.41	0.19	0.13	0.10
Queue Length 95th (ft)	3	0	0	0	9
Control Delay (s)	8.7	0.0	0.0	0.0	10.6
Lane LOS	A				B
Approach Delay (s)	0.5		0.0		10.6
Approach LOS					B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	38.2%	ICU Level of Service	A
Analysis Period (min)	15		

Table A
95TH PERCENTILE QUEUE LENGTHS—EXISTING CONDITIONS

Intersection	Peak Hour	Operating Conditions by Approach																
		Eastbound			Westbound			Northbound			Southbound			Southeast			Northwest		
		L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
Belmont/ Ashland/ Lincoln	Wkdy AM	--	179	179	--	305	87	209	368	47	138	271	118	55	161	69	47	286	109
	Wkdy PM	--	405	185	--	337	81	224	340	44	181	395	120	81	267	131	65	246	177
	Sat Mid	--	469	162	--	365	62	236	376	64	177	366	163	110	229	128	74	254	172
Ashland and School	Wkdy AM	336	336	336	25	25	25	25	219	219	44	188	188	--	--	--	--	--	--
	Wkdy PM	219	219	219	39	39	39	35	213	213	37	275	275	--	--	--	--	--	--
	Sat Mid	101	101	101	37	37	37	25	246	246	55	256	256	--	--	--	--	--	--
Greenview and Belmont	Wkdy AM	25	25	25	156	156	156	122	122	122	199	199	199	--	--	--	--	--	--
	Wkdy PM	38	38	38	74	74	74	187	187	187	129	129	129	--	--	--	--	--	--
	Sat Mid	25	25	25	171	171	171	213	213	213	150	150	150	--	--	--	--	--	--
Queue length measured in feet.																			

Table B
95TH PERCENTILE QUEUE LENGTHS—FUTURE CONDITIONS

Intersection	Peak Hour	Operating Conditions by Approach																	
		Eastbound			Westbound			Northbound			Southbound			Southeast			Northwest		
		L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
Belmont/ Ashland/ Lincoln	Wkdy AM	--	201	201	--	396	134	104	434	50	56	111	46	78	175	76	52	358	143
	Wkdy PM	--	533	229	--	476	136	93	386	48	211	438	80	102	311	152	81	270	199
	Sat Mid	--	542	165	--	436	123	128	479	68	222	462	175	153	268	164	106	311	258
Ashland and School	Wkdy AM	337	337	337	25	25	25	25	193	193	89	262	262	--	--	--	--	--	--
	Wkdy PM	269	269	269	42	42	42	25	54	54	80	362	362	--	--	--	--	--	--
	Sat Mid	152	152	152	46	46	46	25	287	287	70	288	288	--	--	--	--	--	--
Greenview and Belmont	Wkdy AM	25	25	25	164	164	164	133	133	133	199	199	199	--	--	--	--	--	--
	Wkdy PM	35	35	35	78	78	78	229	229	229	129	129	129	--	--	--	--	--	--
	Sat Mid	53	53	53	190	190	190	292	292	292	151	151	151	--	--	--	--	--	--
Melrose and Ashland	Wkdy AM	--	--	--	52	--	50	--	47	47	25	25	--	--	--	--	--	--	--
	Wkdy PM	--	--	--	117	--	122	--	185	185	25	43	--	--	--	--	--	--	--
	Sat Mid	--	--	--	144	--	121	--	390	390	40	243	--	--	--	--	--	--	--
Queue length measured in feet.																			

Signal Warrant Analysis

Whole Foods Market – Belmont/Ashland
Chicago, Illinois

KLOA
Kenig, Lindgren, O'Hara, Aboona, Inc.

Figure A
SIGNAL WARRANT 3 – PEAK HOUR

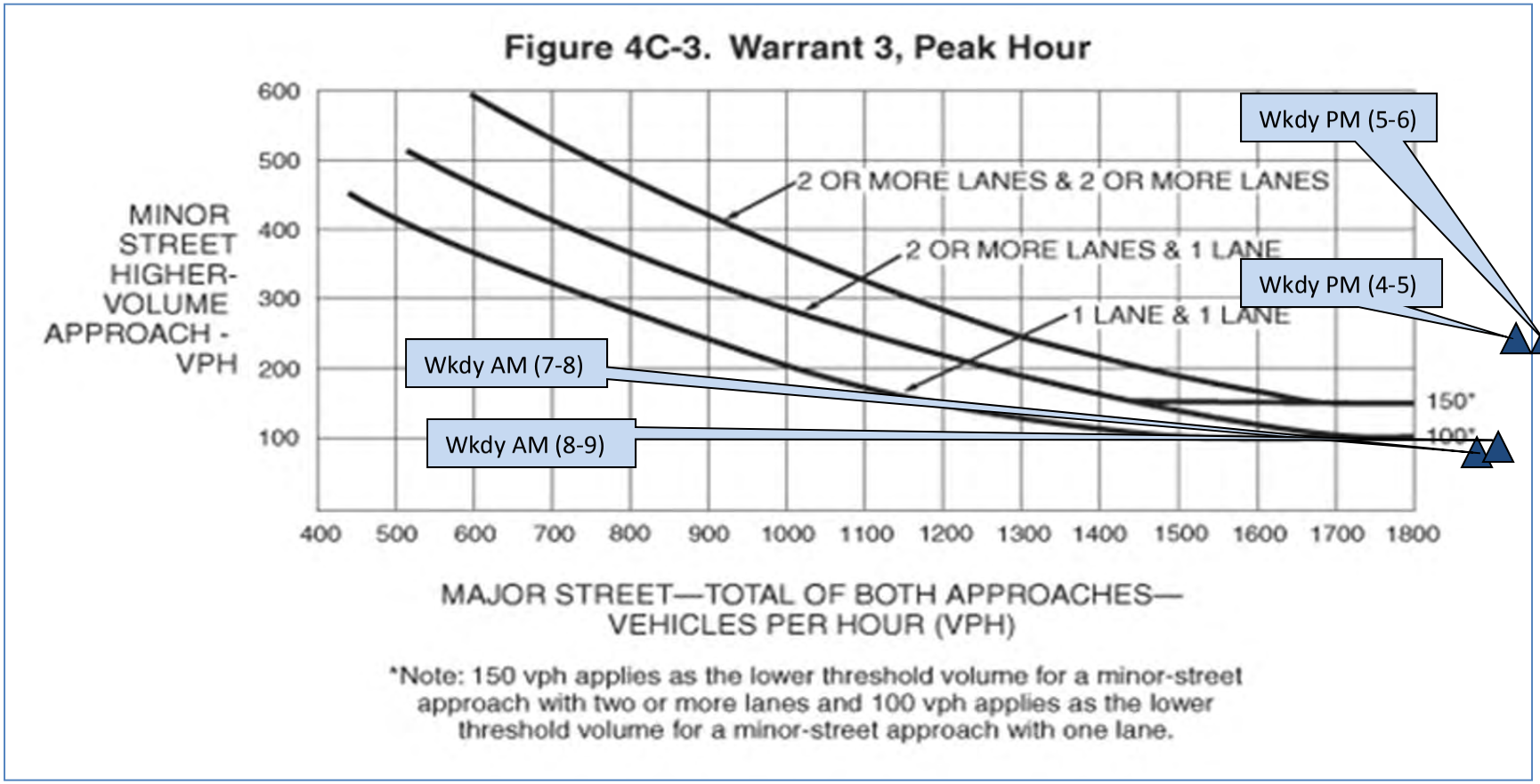
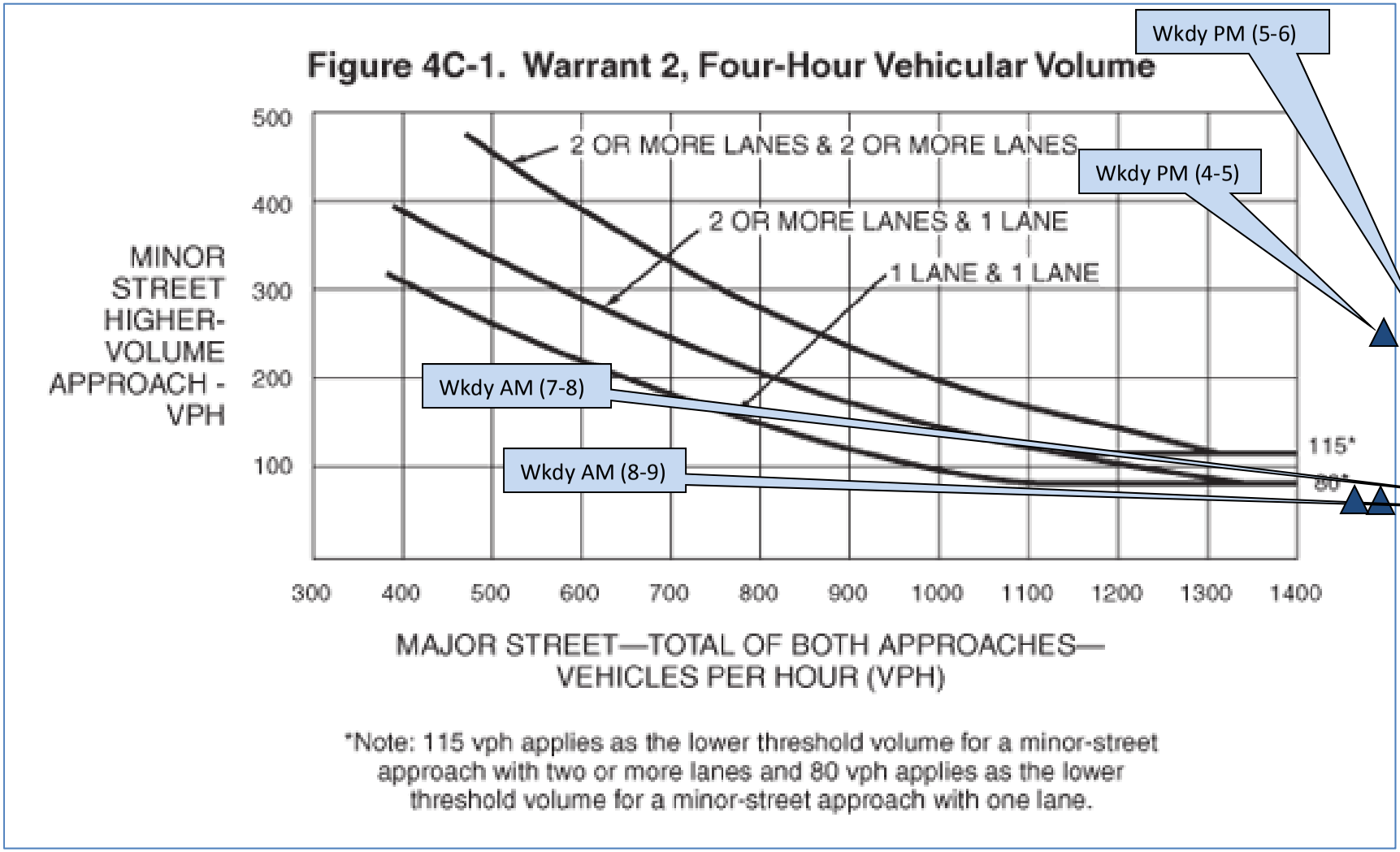


Figure B
SIGNAL WARRANT 2 – FOUR HOUR VOLUMES

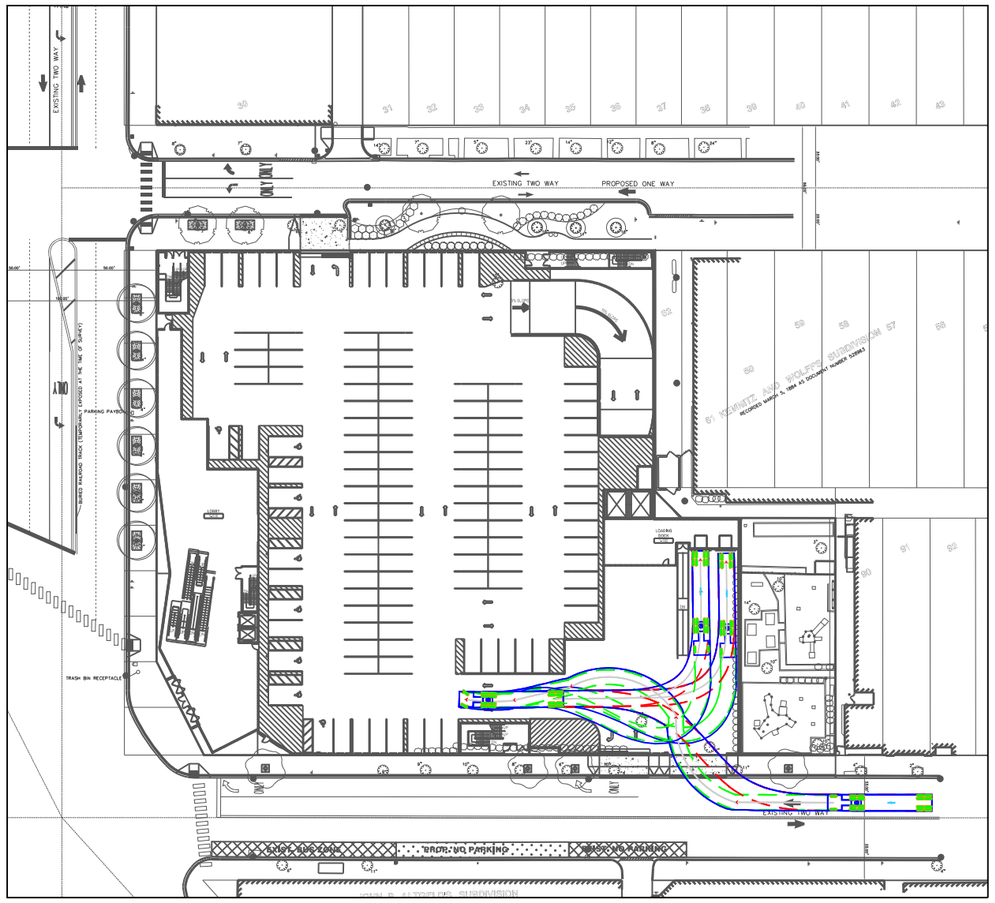


Turning Movement Diagrams

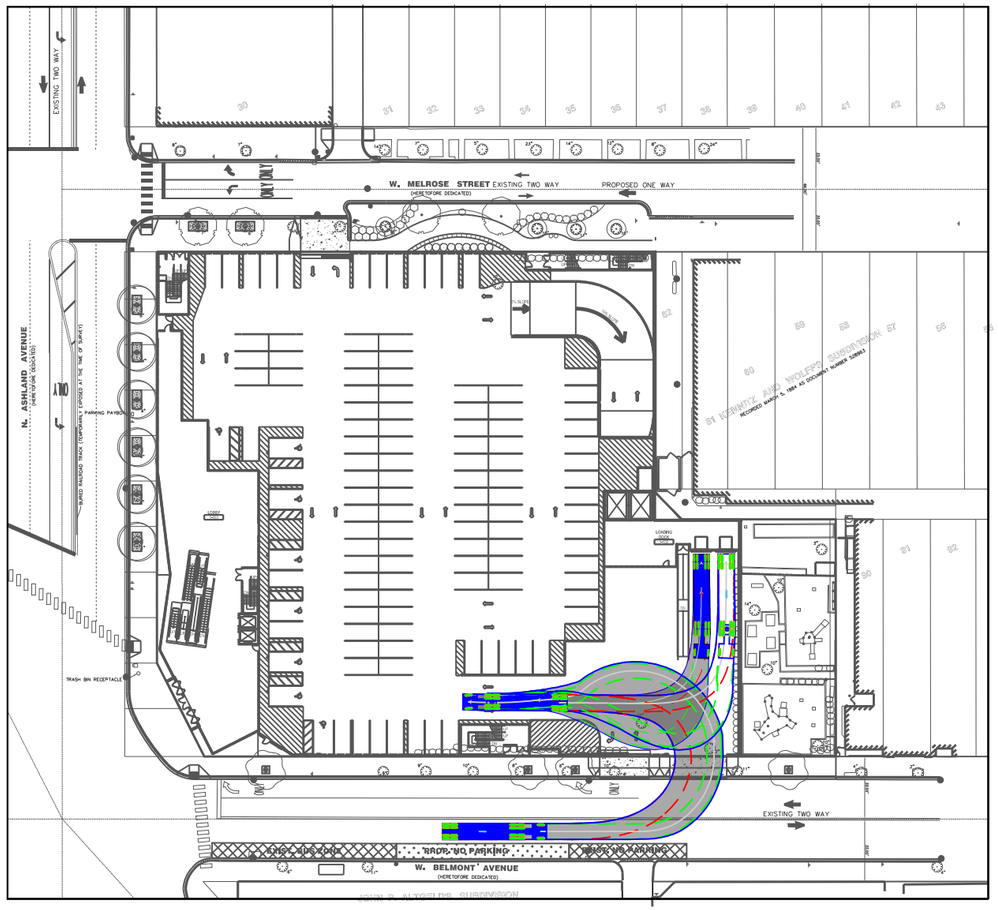
Whole Foods Market – Belmont/Ashland
Chicago, Illinois

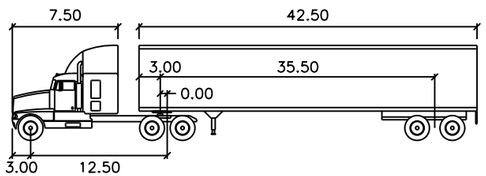
KLOA
Kenig, Lindgren, O'Hara, Aboona, Inc.

WB-50 INBOUND



WB-50 INBOUND





WB–50 feet

Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 17.7
Tractor Track	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.50		

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.
9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
P: (847) 518-9990 F: (847) 518-9987
PROJECT # 14-190

DESIGNED	-	MD
DRAWN	-	MD
CHECKED	-	LRA
DATE	-	07-13-2015

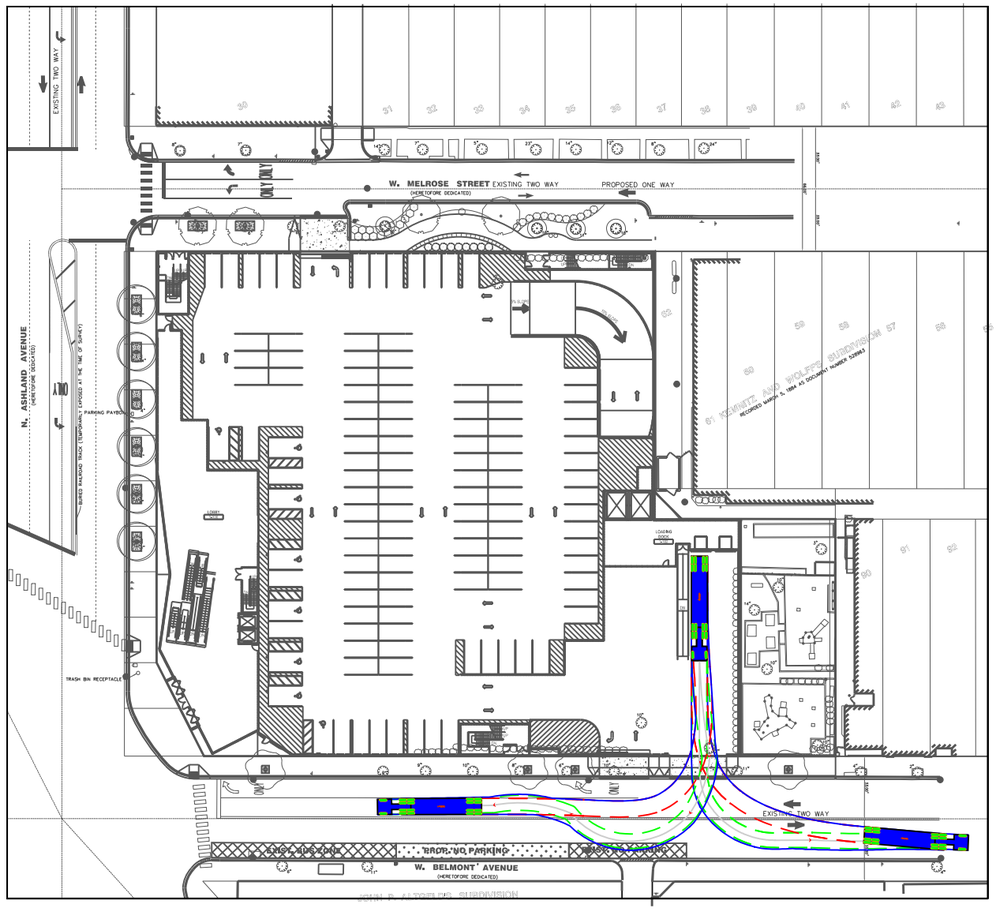
SCALE:
11x17 PRINT: 1" = 80'
22x34 PRINT: 1" = 40'

RETAIL
ASHLAND AND BELMONT
CHICAGO, ILLINOIS

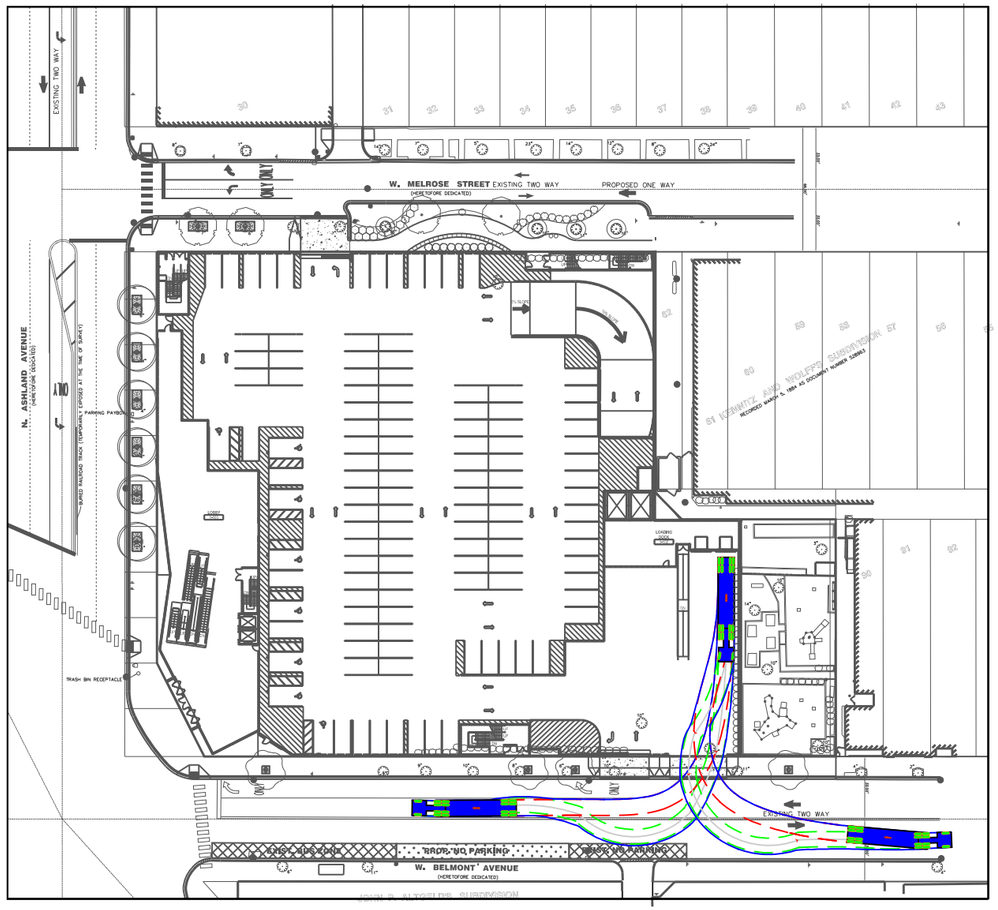
WB–50 INBOUND MANEUVERS

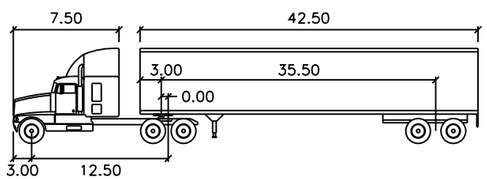
EXHIBIT NO.
A

WB-50 OUTBOUND



WB-50 OUTBOUND





WB–50 feet

Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 17.7
Tractor Track	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.50		

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CHICAGO, ILLINOIS

WB-50 OUTBOUND MANEUVERS

EXHIBIT NO.
B