

Introduction

This report summarizes the methodologies, results, and findings of a traffic and parking impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the proposed Kensington School to be located in Arlington Heights, Illinois. The site, which is currently vacant, is located in the northwest quadrant of the intersection of Kensington Road and Dryden Place directly east of the Arlington Market development. **Figure 1** shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site area.

As proposed, the school will provide a preschool program and a full-day program with a maximum of 150 students and approximately 21 to 23 staff members. The following summarizes the proposed operation of the school:

- The full-day program will operate between 6:30 A.M. and 6:30 P.M. and will have a total of approximately 130 students. According to the operator, most students will be dropped off between 6:30 and 8:30 A.M. and picked up between 3:30 and 6:00 P.M. All parents will be required to park and walk their children to and from the school.
- The preschool program will have a total of approximately 20 students and will operate from 9:00 A.M. to 11:30 A.M. All parents will be required to park and walk their children to and from the school.

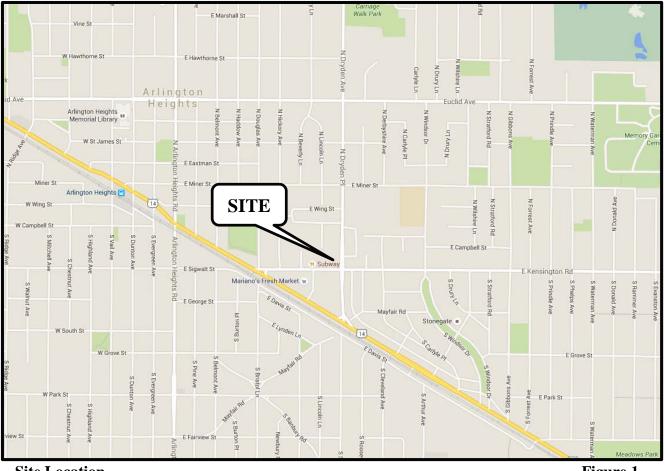
The school is proposed to have a total of 46 parking spaces. Per the Arlington Market development agreement, cross access and shared parking will be provided between the proposed school and the existing Arlington Market.

The purpose of this study was to examine existing traffic conditions, assess the impact that the proposed school would have on traffic conditions in the area, and determine the need for roadway or traffic control improvements that are directly related to the proposed school.

The sections of this report present the following:

- Existing roadway conditions including traffic volumes for the weekday morning and weekday evening peak hours
- A detailed description of the proposed school
- Vehicle trip generation for the proposed school
- Directional distribution of school-generated traffic
- Future transportation conditions including access to and from the school
- Projected parking conditions of the school and the Arlington Market development





Site Location

Figure 1





Aerial View of Development Site

Figure 2



Existing Conditions

Existing traffic and roadway conditions were documented based on field visits and traffic counts conducted by KLOA, Inc. The following provides a detailed description of the physical characteristics of the roadways including geometry and traffic control, adjacent land uses, and peak hour traffic flows along area roadways.

Site Location

The site is located in the northwest quadrant of the intersection of Kensington Road and Dryden Place. Land uses in the area include the Arlington Market commercial development located directly west of the site, residential homes located directly north and east of the site, and Mariano's Fresh Market located directly south of the site. Miner Special Education School and Windsor Elementary School are located to the northeast of the site and are in session from mid-August to early June and from late August to late May, respectively.

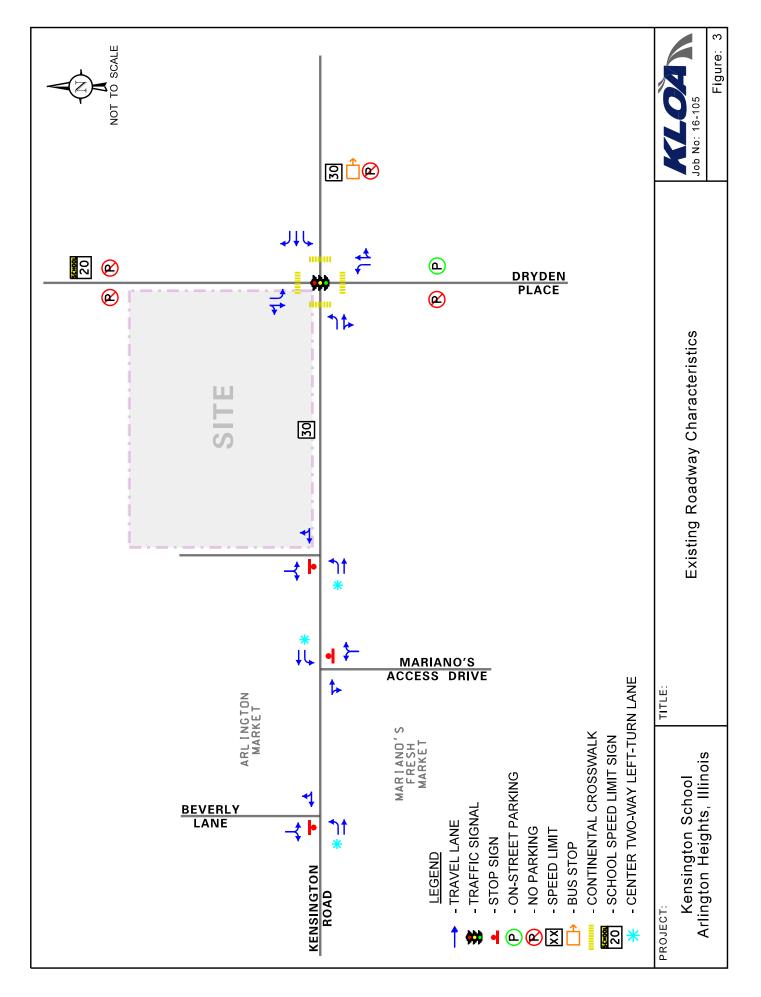
Existing Roadway System Characteristics

The characteristics of the existing roadways that surround the proposed development are illustrated in **Figure 3** and described below.

Dryden Place is a north-south, major collector roadway providing one lane in each direction separated by a two-way left-turn lane that extends from Northwest Highway to Miner Street. At its signalized intersection with Kensington Road, Dryden Place provides an exclusive left-turn lane and a shared through/right-turn lane on both approaches. Continental style crosswalks are provided on both approaches of Dryden Place at its intersection with Kensington Road. Dryden Place is under the jurisdiction of the Village of Arlington Heights, has an annual average daily traffic (AADT) volume of 3,850 vehicles, and has a posted speed limit of 30 mph with a school zone speed limit of 20 mph north of Kensington Road.

Kensington Road is an east-west, major collector roadway that provides one lane in each direction separated by a two-way left-turn lane. At its signalized intersection with Dryden Place, Kensington Road provides an exclusive left-turn lane and a shared through/right-turn lane on the eastbound approach and an exclusive left-turn lane, a though lane, and a right-turn lane on the westbound approach. Continental style crosswalks are provided on both approaches of Kensington Road at its intersection with Dryden Place. Kensington Road is under the jurisdiction of the Village of Arlington Heights, carries an AADT volume of 5,500 vehicles, and has a posted speed limit of 30 mph.

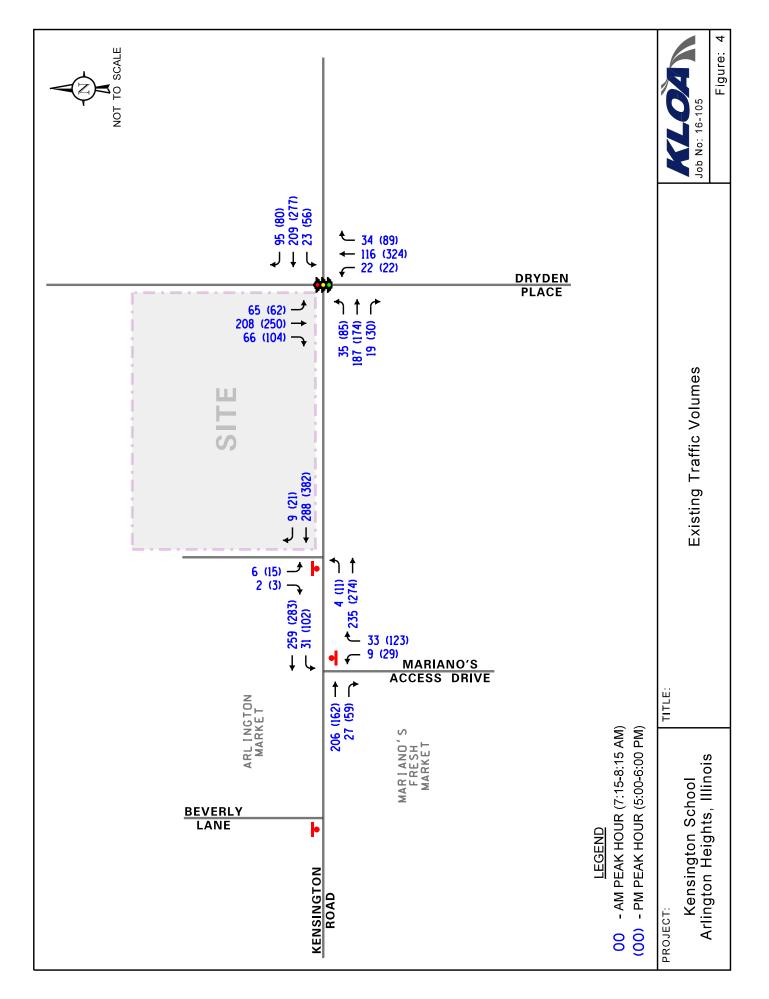




Existing Traffic Volumes

In order to determine existing traffic conditions, vehicle, pedestrian, and bicycle traffic counts were conducted at the intersections of Kensington Road with Dryden Place and Kensington Road with the Arlington Market and Mariano's access drives. The traffic counts were conducted on Thursday, July 7, 2016 during the morning (7:00 to 9:00 A.M.) and evening (4:00 to 6:00 P.M.) peak periods. From the turning movement count data, it was determined that the weekday morning peak hour generally occurs between 7:15 A.M. and 8:15 A.M. and the weekday evening peak hour generally occurs between 5:00 P.M. It should be noted that the counts were performed when the schools in the area were closed for the summer. Pedestrian and bicycle activity was observed and was reported to be very low at the study intersections. The existing peak hour traffic volumes are shown in **Figure 4**.





Traffic Characteristics of the Proposed School

To evaluate the impact of the proposed school on the area roadway system, it was necessary to quantify the number of vehicle trips the school will generate during the peak hours and determine the directions from which this traffic will approach and depart the site.

Proposed Development Plan

The site is to be developed with an approximate 15,300 square-foot school. As proposed, the school will provide a preschool program and a full-day program with a maximum enrollment of 150 students and approximately 21 to 23 staff members. The following summarizes the proposed operation of the school:

- The full-day program will operate between 6:30 A.M. and 6:30 P.M. and will have a total of approximately 130 students. According to the operator, most students will be dropped off between 6:30 and 8:30 A.M. and picked up between 3:30 and 6:00 P.M. All parents will be required to park and walk their children to and from the school.
- The preschool program will have a total of approximately 20 students and will operate from 9:00 A.M. to 11:30 A.M. All parents will be required to park and walk their children to and from the school.

The school is proposed to have a total of 46 parking spaces.

Site Access

Per the Arlington Market development agreement, cross access and shared parking will be provided between the proposed school and the existing Arlington Market development. Access to the Arlington Market development is currently provided via one access drive on Kensington Road and four access drives on Beverly Lane as discussed below.

- The *Kensington Road access drive* is located on the north side of the road at the east end of the existing Arlington Market parcel approximately 100 feet east of the Mariano's access drive. This access drive provides access to the main north-south circulation road/parking aisle serving the Arlington Market and provides one inbound lane and one outbound lane.
- The *northern Beverly Lane access drive* is located on the east side of the road at the north end of the existing Arlington Market parcel. This access drive provides access to the main east-west circulation road/parking aisle serving the Arlington Market and provides one inbound lane and one outbound lane.
- The *southern Beverly Lane access drive* is located on the east side of the road at the south end of the existing Arlington Market parcel. This access drive provides access to the parking lot located in the southwest corner of the site and provides one inbound lane and one outbound lane.



The two middle Beverly Lane access drives are located on the east side of the road towards the middle of the existing Arlington Market parcel. These access drives are restricted to one-way flow and serve the Ben Franklin Bank of Illinois drive-through facility which is located on the west side of the building.

As proposed, access to the school is proposed to be provided via a single access drive located along the Arlington Market's main north-south circulation/parking aisle, aligned opposite an east-west parking aisle. This north-south parking aisle provides direct access to the Kensington Road access drive and secondary access to the northern Beverly Lane access drive. As such, the school will have access to the external roadway system via multiple access drives. As proposed, the access drive will be under stop sign control at its intersection with the Arlington Market's north-south circulation/parking aisle.

Directional Distribution of Site Traffic

The directional distribution of how traffic will approach and depart the development was based on the existing travel patterns, as determined from the traffic counts and the existing roadway characteristics and traffic controls surrounding the site. Figure 5 illustrates the directional distribution for the proposed school.

Site Traffic Generation

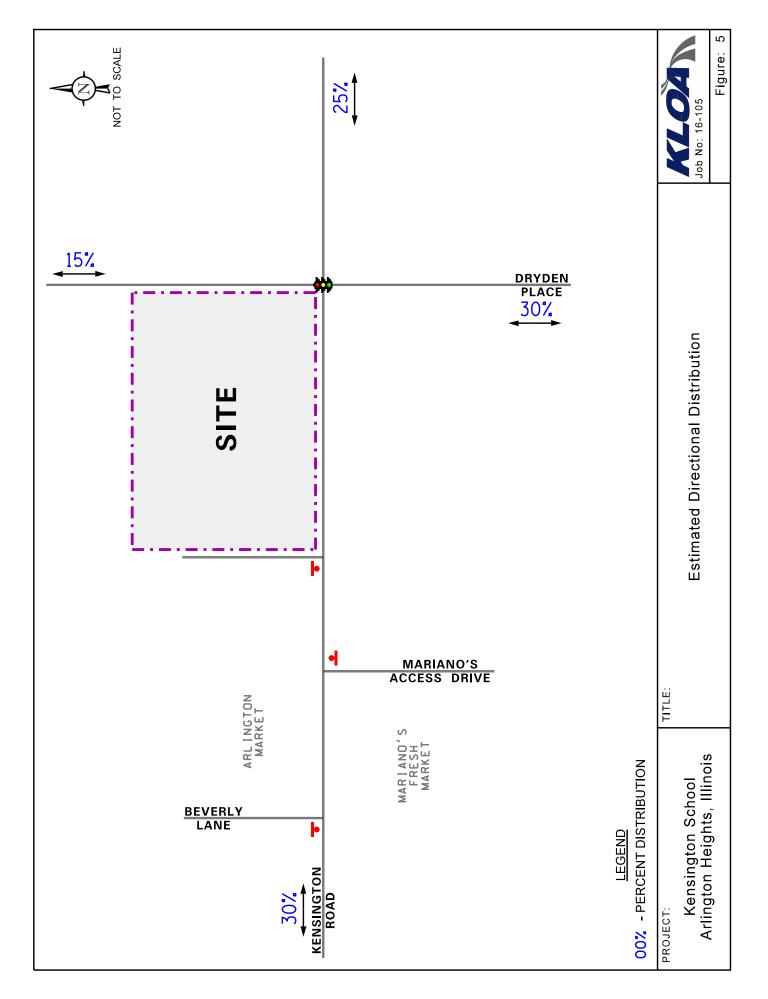
The traffic estimated to be generated by the proposed school was based on surveys of an existing Kensington School located in Elmhurst, Illinois. According to Kensington School officials, the Elmhurst school is approximately 15,000 square feet in size and has a licensed capacity for 160 students and a total of 24 to 26 employees, all of which is very similar to the size and operation of the proposed Arlington Heights school. Further, on the day the surveys were performed, the school had an attendance of 158 students with 26 employees working that day. The surveys were performed on Wednesday, December 9, 2015 during the morning (6:00 A.M. to 9:00 A.M.) and evening (4:00 P.M. to 6:00 P.M.) peak periods. Table 1 tabulates the vehicle trips anticipated to be generated by the school and was based on the surveys at the existing Elmhurst school.

ESTIMATED SCHOOL-GENERATED	ESTIMATED SCHOOL-GENERATED PEAK HOUR TRAFFIC VOLUMES											
	•	y Morning Hour	-	y Evening Hour								
	In	Out	In	Out								
Proposed Kensington School	54	45	53	59								

Table 1

The school primarily generates traffic during the drop-off and pick-up periods. Further, the school is typically closed after 6:30 P.M. on weeknights and on weekends. As such, other than during the morning and evening peak periods, the school generates a very limited volume of traffic during weekdays and little, if any, traffic during weekday evenings or weekends.

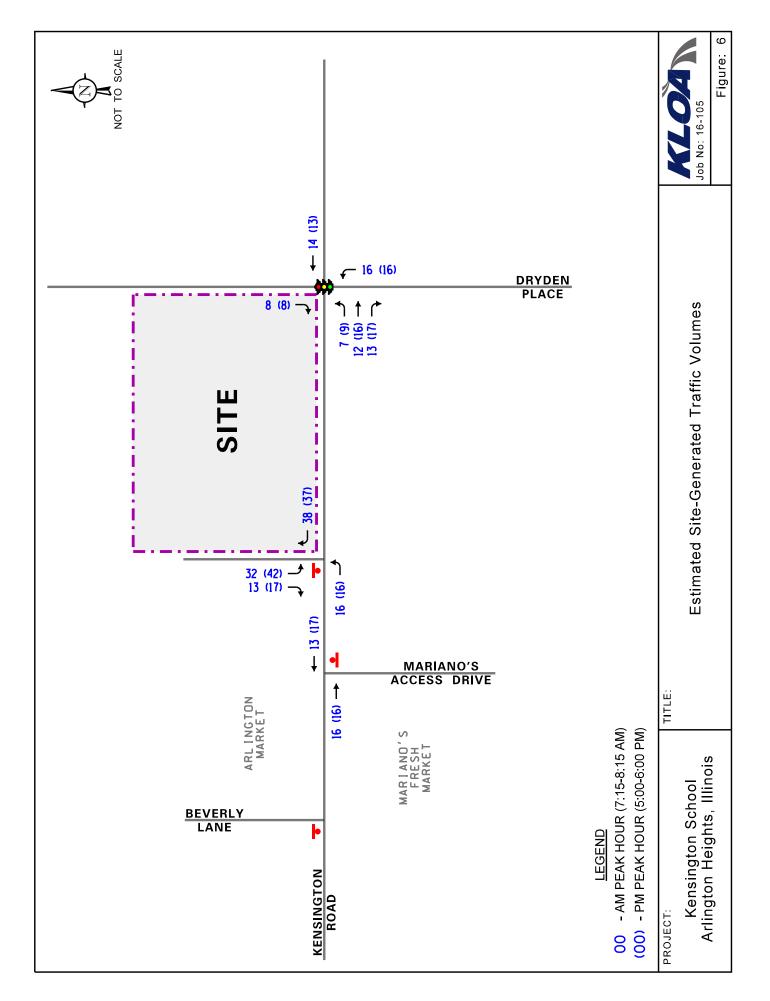


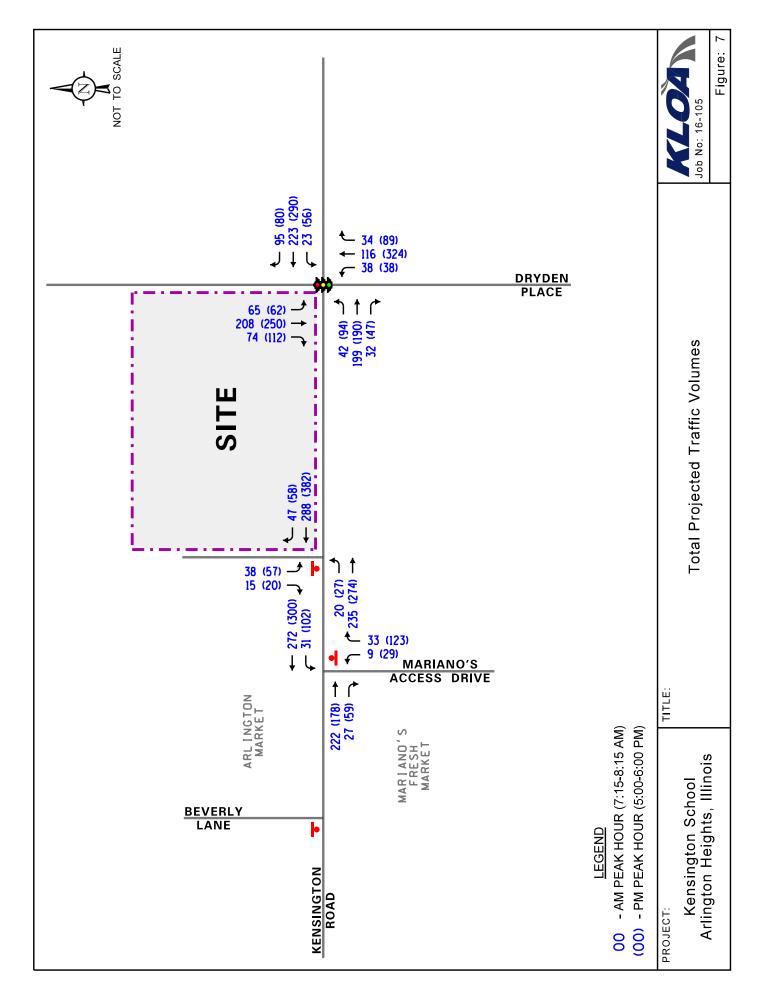


Total Projected Traffic Volumes

The school-generated peak hour traffic volumes (Table 1) were assigned to the area roadways based on the directional distribution analysis (Figure 5) and are shown in **Figure 6.** To account for the increase in existing traffic related to regional growth in the area (i.e. not attributable to any particular planned development) and the fact that the traffic counts were conducted when the nearby Miner School and Windsor Elementary School were not in session, the existing traffic volumes (Figure 4) were increased by twenty percent. The total projected traffic volumes include the existing traffic volumes plus the regional or background growth in traffic plus the traffic to be generated by the proposed school. **Figure 7** illustrates the total projected traffic volumes.







Traffic Evaluation

The following provides an evaluation conducted for the weekday morning and weekday evening peak hours. The analysis includes conducting capacity analyses to provide an indication of how well the roadway facilities serve the anticipated traffic demands placed upon them assuming the total projected traffic volumes.

Traffic Analyses

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

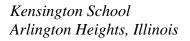
The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM), 2010* and using HCS (Highway Capacity Software) software.

The analysis for the traffic-signal controlled intersections were accomplished using existing signal timing data 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).

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the analyzed conditions are presented in **Tables 2 and 3.** A discussion of the intersections follows.





		y Morning K Hour		y Evening Hour	
Intersection	LOS	Delay	LOS	Delay	
Kensington Road with Dryden Place ¹					
Overall	С	26.3	С	25.1	
Westbound Approach	D	39.5	D	40.2	
Northbound Approach	В	11.0	В	14.9	
Eastbound Approach	D	40.1	D	35.3	
Southbound Approach	В	11.6	В	13.5	
Kensington Road with Arlington Man	rket Access Driv	ve ²			
Eastbound Left Turn	А	7.9	А	8.2	
Southbound Approach	В	11.4	В	12.3	
Kensington Road with Mariano's Acc	cess Drive ²				
Westbound Left Turn	А	7.8	А	7.9	
Northbound Approach	В	10.4	В	11.6	
LOS = Level of Service Delay is measured in seconds. 1. Signalized intersection 2. Stop sign controlled intersection					

Table 2CAPACITY ANALYSIS RESULTS - EXISTING CONDITIONS



		y Morning K Hour		y Evening Hour
Intersection	LOS	Delay	LOS	Delay
Kensington Road with Dryden Place ¹				
Overall	С	27.1	С	25.8
Westbound Approach	D	39.0	D	40.5
Northbound Approach	В	11.6	В	15.5
Eastbound Approach	D	41.0	D	35.7
Southbound Approach	В	12.7	В	14.2
Kensington Road with Arlington Mark	et Access Drive	2		
Eastbound Left Turn	А	8.1	А	8.3
Southbound Approach	В	12.4	В	13.7
Kensington Road with Mariano's Acce	ss Drive ²			
Westbound Left Turn	А	7.9	А	8.0
Northbound Approach	В	10.6	В	11.8
LOS = Level of Service Delay is measured in seconds. 1. Signalized intersection 2. Stop sign controlled intersection				

 Table 3

 CAPACITY ANALYSIS RESULTS – PROJECTED CONDITIONS

Discussion and Recommendations

The following summarizes how the intersections are projected to operate and identifies any roadway and traffic control improvements necessary to accommodate the proposed development traffic.

Kensington Road with Dryden Place

The results of the capacity analyses have shown that this overall intersection is currently operating at a good Level of Service (LOS) C. With the addition of the traffic to be generated by the proposed development and the other growth in the area, the overall intersection is projected to continue to operate at a good LOS C. Further, all of the approaches currently and are projected to operate at a LOS D or better. As such, the intersection has sufficient reserve capacity to accommodate the additional traffic to be generated by the proposed development.

Kensington Road with Arlington Market Access Drive

The results of the capacity analyses have shown that the Arlington Market southbound approach and the inbound left-turn movement are currently operating at a good LOS B or better. With the addition of the traffic to be generated by the proposed development, the Arlington Market southbound approach and the inbound left-turn movement are projected to continue to operate at a good LOS B or better. As such, the intersection has sufficient reserve capacity to accommodate the additional traffic to be generated by the proposed development.

Kensington Road with Mariano's Access Drive

The results of the capacity analyses have shown that the Mariano's northbound approach and the inbound left-turn movement are currently operating at a good LOS B or better. With the addition of the traffic to be generated by the proposed development, the Mariano's northbound approach and the inbound left-turn movement are projected to continue to operate at a good LOS B or better. As such, the intersection has sufficient reserve capacity to accommodate the additional traffic to be generated by the proposed development.



Kensington Road Center Left-Turn Lane

Left-turn movements from Kensington Road to the Mariano's access drive and the Arlington Market access drive are accommodated via the center two-way left-turn lane on Kensington Road. With the centerlines of the two access drives approximately 100 feet apart, the two-way left-turn lane can accommodate three to four vehicles between the two access drives. According to the capacity analyses, both access drives are projected to have a 95th percentile inbound left-turn queue length of approximately one vehicle during both the weekday morning and evening peak hours. As such, the center two-way left-turn lane on Kensington Road should be sufficient to accommodate the projected maximum left-turn queue to both access drives.

Further, it should be noted that the school primarily generates traffic during the weekday morning (6:30 A.M. to 8:30 A.M.) and evening (3:30 P.M. to 6:00 P.M.) peak periods. In addition, it is closed on weekends. As such, the school and the Mariano's only generate higher or peak volumes of traffic at the same time during a two to two and a half hour period on weekday evenings. In contrast, if the subject parcel were developed with a commercial development, it would likely generate traffic all day long on both weekdays and weekends.

Internal Circulation

The school is proposed to have a 46-space parking lot that will be located along the south side of the site and will be designed with perpendicular parking and two-way circulation. In addition, a one-way westbound circulation road will be located along the front of the building. It should be noted that parents and staff will have two means to exit the parking lot which will help to distribute the outbound traffic and reduce any internal queueing within the school site.

Access to the site is to be provided via cross access to the Arlington Market via a single access drive to be located along the Arlington Market's main north-south circulation/parking aisle, aligned opposite an east-west parking aisle. The school's access drive is proposed to be under stop sign control at its intersection with the Arlington Market's main north-south circulation/parking aisle. The north-south parking aisle provides direct access to the Kensington Road access drive and secondary access to the northern Beverly Lane access drive. As such, the school will have access to the external roadway system via multiple access drives.

It is anticipated that the 21 to 23 staff members will park along the outside of the parking lot. The 11 parking spaces along the inside of the parking lot will be used by parents. As indicated previously, all parents will be required to park and walk their children to and from school and no drop-offs or pick-ups will be permitted. It is important to note that the arrival and departure of the full-day students is typically distributed over a two-hour period (6:30 A.M. to 8:30 A.M.) in the morning and a two and one half hour period (3:30 P.M. to 6:00 P.M.) in the evening. Finally, the site has been designed with sidewalks and a crosswalk across the circulation road that will provide pedestrian connections between the parking spaces and the school.

Finally, AutoTurn exhibits are provided in the Appendix showing how the Arlington Heights Fire Department's ladder truck can circulate the parking lot.



Parking Study

Existing Development

Currently, the western portion of the Arlington Market is developed with a commercial building that contains the Ben Franklin Bank of Illinois, Eros Restaurant, DeLuxe Nails Spa, Definite Dental Solutions, and a Subway restaurant. It is important to note that the existing building is 100 percent occupied. The Arlington Market currently provides a total of 88 parking spaces with 81 parking spaces provided in the main parking lot that extends along the east and north sides of the building and seven spaces located on the southwest side of the building.

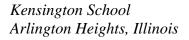
Existing Parking Demand

Parking inventory and occupancy surveys were conducted at the two parking lots located within the Arlington Market. The surveys were performed from 6:00 A.M. to 6:30 P.M. on the following days:

- Thursday, December 3, 2015
- Friday, December 4, 2015
- Saturday, April 2, 2016
- Thursday, April 7, 2016
- Friday, April 8, 2016
- Saturday, April 9, 2016

It should be noted that the surveys were conducted during the hours of operation of the proposed school which is generally from 6:30 A.M. to 6:30 P.M. Monday through Friday. As such, all of the school's 46 parking spaces will typically be available for use by the existing Arlington Market after 6:30 P.M. to 7:00 P.M. on weekdays and all day on weekends. The results of the parking inventory and occupancy surveys are shown in **Tables 4** through **9**. A summary of the peak parking demand and the time it occurred for each of the surveyed days is shown in **Table 10**.

The results of the parking surveys showed that the existing Arlington Market had a peak parking demand of 63 to 64 vehicles on a weekday and 50 vehicles on a Saturday. A maximum of approximately 74 percent of the total parking spaces were occupied on a weekday and a maximum of approximately 57 percent of the spaces were occupied on a Saturday. At a minimum, 24 parking spaces were available within the parking lot on a weekday or Saturday between 6:00 A.M. and 6:30 P.M. As such, it can be seen that the existing 88 parking spaces are sufficient to meet the peak parking demand of the existing Arlington Market during the operating hours of the school. As noted above, all of the school's 46 parking spaces will typically be available for use by the existing Arlington Market after 6:30 P.M. to 7:00 P.M. on weekdays and all day on weekends.





Time	Main Lot	Secondary Lot	Total	Percentage Occupied
Inventory	81	7	88	n/a
6:00 AM	8	1	9	10%
6:30 AM	16	1	17	19%
7:00 AM	14	2	16	18%
7:30 AM	10	2	12	14%
8:00 AM	12	2	14	16%
8:30 AM	18	3	21	24%
9:00 AM	28	3	31	35%
9:30 AM	34	5	39	44%
10:00 AM	34	6	40	45%
11:00 AM	36	7	43	49%
11:30 AM	40	6	46	52%
12:00 PM	46	5	51	58%
12:30 PM	54	5	59	67%
1:00 PM	42	5	47	53%
1:30 PM	25	5	30	34%
2:00 PM	37	5	42	48%
3:00 PM	34	4	38	43%
3:30 PM	33	6	39	44%
4:00 PM	37	7	45	51%
4:30 PM	32	4	36	41%
5:00 PM	36	5	41	47%
5:30 PM	40	6	46	52%
6:00 PM	46	5	51	58%

Table 4 ARLINGTON MARKET PARKING SURVEYS THURSDAY, DECEMBER 3, 2015



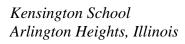
Time	Main Lot	Secondary Lot	Total	Percentage Occupied			
Inventory	81	7	88	n/a			
6:00 AM	7	2	9	10%			
6:30 AM	11	2	13	15%			
7:00 AM	15	3	18	20%			
7:30 AM	12	3	15	17%			
8:00 AM	13	3	16	18%			
8:30 AM	22	4	26	30%			
9:00 AM	31	3	34	39%			
9:30 AM	38	3	41	47%			
10:00 AM	44	6	50	57%			
11:00 AM	45	6	51	58%			
11:30 AM	56	6	62	70%			
12:00 PM	56	6	62	70%			
12:30 PM	50	6	56	64%			
1:00 PM	49	6	55	63%			
1:30 PM	48	7	55	63%			
2:00 PM	49	6	55	63%			
3:00 PM	39	6	45	52%			
3:30 PM	32	2	34	39%			
4:00 PM	37	2	39	44%			
4:30 PM	39	2	41	47%			
5:00 PM	40	2	42	48%			
5:30 PM	39	2	41	47%			
6:00 PM	40	2	42	48%			

Table 5 ARLINGTON MARKET PARKING SURVEYS FRIDAY, DECEMBER 4, 2015



Time	Main Lot	Secondary Lot	Total	Percentage Occupied			
Inventory	81	7	88	n/a			
6:00 AM	4	2	6	7%			
6:30 AM	8	2	10	11%			
7:00 AM	12	3	15	17%			
7:30 AM	12	4	16	18%			
8:00 AM	16	4	20	23%			
8:30 AM	24	5	29	33%			
9:00 AM	30	5	35	40%			
9:30 AM	43	5	48	55%			
10:00 AM	39	5	44	50%			
10:30 AM	41	5	46	52%			
11:00 AM	35	5	40	45%			
11:30 AM	33	4	37	42%			
12:00 PM	34	4	38	43%			
12:30 PM	40	3	43	49%			
1:00 PM	36	4	40	45%			
1:30 PM	29	5	34	39%			
2:00 PM	31	5	36	41%			
2:30 PM	30	4	34	39%			
3:00 PM	25	1	26	30%			
3:30 PM	23	1	24	27%			
4:00 PM	21	2	23	26%			
4:30 PM	22	2	24	27%			
5:00 PM	22	2	24	27%			
5:30 PM	24	2	26	30%			
6:00 PM	36	2	38	43%			

Table 6 ARLINGTON MARKET PARKING SURVEYS SATURDAY, APRIL 2, 2016





Time	Main Lot	Secondary Lot	Total	Percentage Occupied
Inventory	81	7	88	n/a
6:00 AM	6	1	7	8%
6:30 AM	15	1	16	18%
7:00 AM	18	1	19	22%
7:30 AM	8	2	10	11%
8:00 AM	8	3	11	13%
8:30 AM	19	3	22	25%
9:00 AM	29	3	32	36%
9:30 AM	39	3	42	48%
10:00 AM	40	5	45	51%
10:30 AM	43	5	48	55%
11:00 AM	42	5	47	53%
11:30 AM	48	5	53	60%
12:00 PM	58	5	63	72%
12:30 PM	51	5	56	64%
1:00 PM	34	4	38	43%
1:30 PM	33	4	37	42%
2:00 PM	40	4	44	50%
2:30 PM	35	4	39	44%
3:00 PM	35	3	38	43%
3:30 PM	31	3	34	39%
4:00 PM	35	4	39	44%
4:30 PM	36	4	40	45%
5:00 PM	34	4	38	43%
5:30 PM	35	3	38	43%
6:00 PM	42	4	46	52%

Table 7 ARLINGTON MARKET PARKING SURVEYS THURSDAY, APRIL 7, 2016





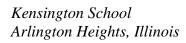
Time	Main Lot	Secondary Lot	Total	Percentage Occupied
Inventory	81	7	88	n/a
6:00 AM	5	2	7	8%
6:30 AM	7	2	9	10%
7:00 AM	10	2	12	14%
7:30 AM	11	2	13	15%
8:00 AM	12	2	14	16%
8:30 AM	18	3	21	24%
9:00 AM	22	3	25	28%
9:30 AM	29	3	32	36%
10:00 AM	34	3	37	42%
10:30 AM	40	4	44	50%
11:00 AM	45	4	49	56%
11:30 AM	47	4	51	58%
12:00 PM	59	4	63	72%
12:30 PM	59	4	63	72%
1:00 PM	55	3	58	66%
1:30 PM	53	3	56	64%
2:00 PM	44	3	47	53%
2:30 PM	38	5	43	49%
3:00 PM	37	3	40	45%
3:30 PM	33	2	35	40%
4:00 PM	30	1	31	35%
4:30 PM	31	3	34	39%
5:00 PM	36	3	39	44%
5:30 PM	49	3	52	59%
6:00 PM	61	3	64	73%

Table 8 ARLINGTON MARKET PARKING SURVEYS FRIDAY, APRIL 8, 2016



Time	Main Lot	Secondary Lot	Total	Percentage Occupied
Inventory	81	7	88	n/a
6:00 AM	5	2	7	8%
6:30 AM	5	2	7	8%
7:00 AM	7	3	10	11%
7:30 AM	10	4	14	16%
8:00 AM	23	4	27	31%
8:30 AM	26	4	30	34%
9:00 AM	38	5	43	49%
9:30 AM	45	5	50	57%
10:00 AM	43	5	48	55%
10:30 AM	37	5	42	48%
11:00 AM	38	5	43	49%
11:30 AM	37	4	41	47%
12:00 PM	42	4	46	52%
12:30 PM	44	3	47	53%
1:00 PM	45	3	48	55%
1:30 PM	38	3	41	47%
2:00 PM	33	3	36	41%
2:30 PM	31	3	34	39%
3:00 PM	29	2	31	35%
3:30 PM	20	1	21	24%
4:00 PM	17	1	18	20%
4:30 PM	20	2	22	25%
5:00 PM	21	2	23	26%
5:30 PM	21	2	23	26%
6:00 PM	25	2	27	31%

Table 9 ARLINGTON MARKET PARKING SURVEYS SATURDAY, APRIL 9, 2016





Time	Time of Day	8						
Inventory	n/a	88	n/a					
Thursday, December 3, 2015	12:30 PM	59	67%					
Friday, December 4, 2015	12:00 PM	62	70%					
Thursday, April 7, 2016	12:00 PM	63	72%					
Friday, April 8, 2016	6:00 P.M.	64	73%					
Saturday, April 2, 2016	9:30 A.M.	48	55%					
Saturday, April 9, 2016	9:30 A.M.	50	57%					

Table 10 ARLINGTON MARKET - SUMMARY OF PEAK PARKING DEMAND



Projected Parking Demand of the School

The peak parking estimated to be generated by the proposed school was based on surveys of an existing Kensington School located in Elmhurst, Illinois. The parking surveys were performed on Wednesday, December 9, 2015 generally during the operating hours of the school (6:30 A.M. to 6:30 P.M.). According to Kensington School officials, the Elmhurst school is approximately 15,000 square feet in size and has a licensed capacity for 160 students and a total of 24 to 26 employees, all of which is very similar to the size and operation of the proposed Arlington Heights school. Further, on the day the surveys were performed, the school had an attendance of 158 students with 26 employees working that day. **Table 11** shows the results of the parking surveys at the existing Elmhurst school.

From Table 11 it can be seen that the proposed school is projected to have a peak parking demand of approximately 37 vehicles which will occur during the morning drop-off period. With a total of 46 parking spaces, it can be seen that the number of parking spaces to be provided by the school will be more than sufficient to meet its peak parking demand and the school will not need to utilize any of the existing 88 parking spaces currently serving the Arlington Market.



Time	Parking Demand	
6:00 AM	1	
6:30 AM	7	
7:00 AM	14	
7:30 AM	18	
8:00 AM	22	
8:30 AM	27	
9:00 AM	37	
9:30 AM	29	
10:00 AM	24	
10:30 AM	22	
11:00 AM	24	
11:30 AM	25	
12:00 PM	25	
12:30 PM	24	
1:00 PM	24	
1:30 PM	21	
2:00 PM	21	
2:30 PM	20	
3:00 PM	20	
3:30 PM	23	
4:00 PM	19	
4:30 PM	26	
5:00 PM	27	
5:30 PM	20	
6:00 PM	8	

Table 11 KENSINGTON SCHOOL, ELMHURST, ILLINOIS PARKING SURVEYS WEDNESDAY, DECEMBER 9, 2016



Conclusion

Based on the proposed development plan and the preceding evaluation, the following conclusions and recommendations are made:

- The school primarily generates traffic during the drop-off and pick-up periods. Further, the school is typically closed after 6:30 P.M. on weeknights and on weekends. As such, other than during the weekday morning and evening peak periods, the school generates a very limited volume of traffic during weekdays and little, if any, traffic during weekday evenings or weekends.
- The traffic volumes were increased by 20 percent in order to account for any background growth and the fact that the Miner Special Education School and Windsor Elementary School were not in session when the traffic counts were conducted.
- The results of the capacity analyses show that all of the intersections in the study area currently operate at a good level of service and are projected to continue to operate at a good level of service with the addition of the school-generated traffic. As such, the existing roadway system has sufficient reserve capacity to accommodate the traffic to be generated by the school.
- Access to the site is to be provided via cross access to the Arlington Market via a single access drive to be located along the Arlington Market's main north-south circulation/parking aisle, aligned opposite an east-west parking aisle. The north-south parking aisle provides direct access to the Kensington Road access drive and secondary access to the northern Beverly Lane access drive. As such, the school will have access to the external roadway system via multiple access drives.
- The center two-way left-turn lane on Kensington Road will continue to provide safe and efficient access to the Arlington Market and Mariano's access drives with a 95th percentile queue of one vehicle at both access drives.
- The results of existing parking surveys performed at the Arlington Market, which is 100 percent occupied, have shown that the existing 88 parking spaces are sufficient to meet the peak parking demand of the existing development during the school's operating hours. All of the school's 46 parking spaces will generally be available to the Arlington Market after 6:30 P.M. to 7:00 P.M. on weekdays and all day on weekends.
- The proposed school is projected to have a peak parking demand of approximately 37 vehicles which will occur during the morning drop-off period. With a total of 46 parking spaces, the number of parking spaces to be provided by the school will be more than sufficient to meet its peak parking demand and the school will not need to utilize any of the existing 88 parking spaces currently serving the Arlington Market.



• Assuming the peak parking demand of the existing Arlington Market and the proposed school, which provides for a worst-case analysis as they occur at different times of the day, the overall development is projected to have a peak parking demand of 101 vehicles. As such, the 134 parking spaces to be provided by the Arlington Market and the proposed school will be more than sufficient to meet their peak parking demand.



Appendix

Traffic Count Summary Sheets Level of Service Criteria Capacity Analysis Summary Sheets Fire Truck AutoTurn Exhibits

Traffic Count Summary Sheets



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

Rosemont, Illinois, United States 60018 (847)518-9990 Count Name: Kensington Road and Dryden Place Site Code: Start Date: 07/07/2016 Page No: 1

Turning Movement Data

Bart Train Listen Listenity Properiod Marting Martin Marting Marting <th></th> <th>1</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>i i</th> <th></th> <th></th> <th></th> <th>in ig i</th> <th>10101</th> <th></th> <th>Julu</th> <th></th> <th></th> <th></th> <th></th> <th>1</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>I.</th>		1						i i				in ig i	10101		Julu					1						I.
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Drun Leh Truo Right Peak Peak <th< td=""><td>o </td><td></td><td></td><td>East</td><td>bound</td><td></td><td></td><td></td><td></td><td>West</td><td>bound</td><td></td><td></td><td></td><td></td><td>North</td><td>bound</td><td></td><td></td><td></td><td></td><td>South</td><td>bound</td><td></td><td></td><td></td></th<>	o 			East	bound					West	bound					North	bound					South	bound			
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number number<	7:00 AM	0	2	38	3	0	43	0	6	31	10	0	47	0	1	27	9	0	37	0	18	35	5	2	58	185
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Lights 0 182 512 72 - 766 0 131 712 242 - 1085 0 55 673 191 - 919 0 199 716 274 - 1189 3959 % Lights - 97.8 96.2 92.3 - 96.2 - 99.2 97.1 97.6 - 97.5 - 90.2 98.4 100.0 - 98.2 - 98.6 98.7 98.6 98.7 98.6 99.3 - 98.6 97.7 Buses 0 0 1.5 0.0 1.0 - 0.0 1.6 1.2 - 1.3 - 0.0 1.0 0.0 0.6 0.0 - 76 2.7 98.6 99.3 - 98.6 99.3 - 98.6 97.7 % Buses - 0.0 1.3 - 1.3 - 0.0 1.0 0.7 2.5 </td <td>Approach %</td> <td>0.0</td> <td>23.4</td> <td>66.8</td> <td>9.8</td> <td>-</td> <td>-</td> <td>0.0</td> <td>11.9</td> <td>65.9</td> <td>22.3</td> <td>-</td> <td>-</td> <td>0.0</td> <td>6.5</td> <td>73.1</td> <td>20.4</td> <td>-</td> <td>-</td> <td>0.0</td> <td>16.8</td> <td>60.3</td> <td>22.9</td> <td>-</td> <td>-</td> <td>-</td>	Approach %	0.0	23.4	66.8	9.8	-	-	0.0	11.9	65.9	22.3	-	-	0.0	6.5	73.1	20.4	-	-	0.0	16.8	60.3	22.9	-	-	-
% Lights - 97.8 96.2 92.3 - 96.2 - 97.4 97.6 - 97.5 - 90.2 98.4 1000 - 98.2 - 98.0 98.5 99.3 - 98.6 97.7 Buses 0 0 12 3 - 15 0 0 7 0 - 7 0 3 4 0 - 7 37 $%$ Buses - 0.0 1.5 0.0 1.0 - 0.0 1.6 1.2 - 1.3 - 0.0 1.0 0.0 3 4 0 - 7 37 Single-Unit Trucks 0 4 11 5 - 20 0 1 7 2 - 10 0 5 3 0 - 88 0 1 6 2 - 99.4 10 Single-Unit Trucks 0 0 <td>Total %</td> <td>0.0</td> <td>4.6</td> <td>13.1</td> <td>1.9</td> <td>-</td> <td>19.6</td> <td>0.0</td> <td>3.3</td> <td>18.1</td> <td>6.1</td> <td>-</td> <td>27.5</td> <td>0.0</td> <td>1.5</td> <td>16.9</td> <td>4.7</td> <td>-</td> <td>23.1</td> <td>0.0</td> <td>5.0</td> <td>17.9</td> <td>6.8</td> <td>-</td> <td>29.8</td> <td></td>	Total %	0.0	4.6	13.1	1.9	-	19.6	0.0	3.3	18.1	6.1	-	27.5	0.0	1.5	16.9	4.7	-	23.1	0.0	5.0	17.9	6.8	-	29.8	
Buses 0 0 8 0 - 8 0 12 3 - 15 0 0 7 0 - 7 0 3 4 0 - 7 37 % Buses - 0.0 1.5 0.0 - 1.0 - 0.0 1.6 1.2 - 1.3 - 0.0 1.0 0.0 - 0.7 - 1.5 0.6 0.0 - 0.6 0.9 Single-Unit Trucks 0 4 11 5 - 20 0 1 7 2 - 10 0 5 3 0 - 8 0 1 6 2 - 9 47 % Single-Unit Trucks 0 0 0 0 1 0 0.8 1.0 0.8 1.0 0.9 - 0.9 - 0.5 0.8 0.7 - 0.7 1.2 <td>Lights</td> <td>0</td> <td>182</td> <td>512</td> <td>72</td> <td>-</td> <td>766</td> <td>0</td> <td>131</td> <td>712</td> <td>242</td> <td>-</td> <td>1085</td> <td>0</td> <td>55</td> <td>673</td> <td>191</td> <td>-</td> <td>919</td> <td>0</td> <td>199</td> <td>716</td> <td>274</td> <td>-</td> <td>1189</td> <td>3959</td>	Lights	0	182	512	72	-	766	0	131	712	242	-	1085	0	55	673	191	-	919	0	199	716	274	-	1189	3959
% Buses - 0.0 1.5 0.0 - 1.0 - 0.0 1.6 1.2 - 1.3 - 0.0 1.0 0.0 - 0.7 - 1.5 0.6 0.0 - 0.6 0.0 - 0.6 0.0 1.0 0.0 - 0.7 - 1.5 0.6 0.0 - 0.6 0.0 1.6 0.2 - 0.6 0.0 5 3 0 - 8 0 1 6 2 - 9 47 % Single-Unit Trucks 2.2 2.1 6.4 - 2.5 - 0.8 1.0 0.8 - 0.9 - 8.2 0.4 0.0 - 0.9 - 0.5 0.8 0.7 - 0.7 1.2 0.7 1.2 0.7 1.2 0.7 1.2 0.7 1.2 0.7 1.2 0.7 1.2 0.7 1.2 0.7 1.2	% Lights	-	97.8	96.2	92.3	-	96.2	-	99.2	97.1	97.6	-	97.5	-	90.2	98.4	100.0	-	98.2	-	98.0	98.5	99.3	-	98.6	97.7
Single-Unit Trucks 0 4 11 5 - 20 0 1 7 2 - 10 0 5 3 0 - 8 0 1 6 2 - 9 47 % Single-Unit Trucks 2.2 2.1 6.4 - 2.5 - 0.8 1.0 0.8 - 0.9 - 8 0.0 - 0.9 - 0.9 - 0.9 - 0.5 0.8 0.7 - 0.7 0.7 1.2 Articulated Trucks 0 0 0 0 1 0 - 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 0	Buses	0	0	8	0	-	8	0	0	12	3	-	15	0	0	7	0	-	7	0	3	4	0	-	7	-
Normalization Normalinstation Normalization Normal	% Buses	-	0.0	1.5	0.0	-	1.0	-	0.0	1.6	1.2	-	1.3	-	0.0	1.0	0.0	-	0.7	-	1.5	0.6	0.0	-	0.6	
Trücks - 2.2 2.1 0.4 - 2.3 - 0.6 1.0 0.9 - 0.0 - 0.9 - 0.0 - 0.3 0.3 0.3 0.7 - 0.7 1.2 Articulated Trucks 0 <td>Single-Unit Trucks</td> <td>0</td> <td>4</td> <td>11</td> <td>5</td> <td>-</td> <td>20</td> <td>0</td> <td>1</td> <td>7</td> <td>2</td> <td>-</td> <td>10</td> <td>0</td> <td>5</td> <td>3</td> <td>0</td> <td>-</td> <td>8</td> <td>0</td> <td>1</td> <td>6</td> <td>2</td> <td>-</td> <td>9</td> <td>47</td>	Single-Unit Trucks	0	4	11	5	-	20	0	1	7	2	-	10	0	5	3	0	-	8	0	1	6	2	-	9	47
% Articulated Trucks - 0.0 0.0 - 0.0 - 0.0 0.1 0.0 - 0.0 0.1 - 0.0 0.1 0.0 - 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.		-	2.2	2.1	6.4	-	2.5	-	0.8	1.0	0.8	-	0.9	-	8.2	0.4	0.0	-	0.9	-	0.5	0.8	0.7	-	0.7	1.2
Trucks - 0.0 0.0 - 0.0 - 0.0 0.1 0.0 - 0.1 0.0 - 0.1 - 0.0 0.1 0.0	Articulated Trucks	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	0	-	1	0	0	0	0	-	0	2
Bicycles on Road - 0.0 0.2 1.3 - 0.0 0.1 0.4 - 0.2 - 1.6 0.0 0.0 - 0.1 - 0.1 0.0 - 0.1 0.0 0.1		-	0.0	0.0	0.0	-	0.0	-	0.0	0.1	0.0	-	0.1	-	0.0	0.1	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	0.0
Road - 0.0 0.2 1.3 - 0.0 0.1 0.4 - 0.2 - 1.6 0.0 0.0 - 0.1 - 0.0 0.1 0.0 - 0.1 0.1 0.1 0.1 0.1 0.2 - 0.1 0.0 0.0 - 0.1 0.0 - 0.1 0.0 - 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Bicycles on Road	0	0	1	1	-	2	0	0	1	1	-	2	0	1	0	0	-	1	0	0	1	0	-	1	6
Pedestrians 9 15 31 16		-	0.0	0.2	1.3	-	0.3	-	0.0	0.1	0.4	-	0.2	-	1.6	0.0	0.0	-	0.1	-	0.0	0.1	0.0	-	0.1	0.1
	Pedestrians	-	-	-	-	9	-	-	-	-	-	15	-	-	-	-	-	31	-	-	-	-	-	16	-	-



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

Rosemont, Illinois, United States 60018 (847)518-9990 Count Name: Kensington Road and Dryden Place Site Code: Start Date: 07/07/2016 Page No: 4

Turning Movement Peak Hour Data (7:15 AM)

				ton Road bound			Kensington Road Westbound							Dryden Place Northbound						Dryden Place Southbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total	
7:15 AM	0	7	56	2	1	65	0	5	51	31	0	87	0	6	30	8	0	44	0	25	42	12	1	79	275	
7:30 AM	0	6	32	6	1	44	0	3	56	20	2	79	0	2	25	6	1	33	0	9	40	15	1	64	220	
7:45 AM	0	9	39	5	0	53	0	5	30	16	0	51	0	6	20	7	1	33	0	6	49	12	2	67	204	
8:00 AM	0	7	29	3	0	39	0	6	37	12	3	55	0	4	22	7	4	33	0	14	42	16	0	72	199	
Total	0	29	156	16	2	201	0	19	174	79	5	272	0	18	97	28	6	143	0	54	173	55	4	282	898	
Approach %	0.0	14.4	77.6	8.0	-	-	0.0	7.0	64.0	29.0	-	-	0.0	12.6	67.8	19.6	-	-	0.0	19.1	61.3	19.5	-	-	-	
Total %	0.0	3.2	17.4	1.8	-	22.4	0.0	2.1	19.4	8.8	-	30.3	0.0	2.0	10.8	3.1	-	15.9	0.0	6.0	19.3	6.1	-	31.4	-	
PHF	0.000	0.806	0.696	0.667	-	0.773	0.000	0.792	0.777	0.637	-	0.782	0.000	0.750	0.808	0.875	-	0.813	0.000	0.540	0.883	0.859	-	0.892	0.816	
Lights	0	27	149	13	-	189	0	19	163	76	-	258	0	15	93	28	-	136	0	53	168	55	-	276	859	
% Lights	-	93.1	95.5	81.3	-	94.0	-	100.0	93.7	96.2	-	94.9	-	83.3	95.9	100.0	-	95.1	-	98.1	97.1	100.0	-	97.9	95.7	
Buses	0	0	2	0	-	2	0	0	9	1	-	10	0	0	3	0	-	3	0	1	3	0	-	4	19	
% Buses	-	0.0	1.3	0.0	-	1.0	-	0.0	5.2	1.3	-	3.7	-	0.0	3.1	0.0	-	2.1	-	1.9	1.7	0.0	-	1.4	2.1	
Single-Unit Trucks	0	2	5	3	-	10	0	0	1	2	-	3	0	3	1	0	-	4	0	0	2	0	-	2	19	
% Single-Unit Trucks	-	6.9	3.2	18.8	-	5.0	-	0.0	0.6	2.5	-	1.1	-	16.7	1.0	0.0	-	2.8	-	0.0	1.2	0.0	-	0.7	2.1	
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	
Bicycles on Road	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1	
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.6	0.0	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1	
Pedestrians	-	-	-	-	2	-	-	-	-	-	5	-	-	-	-	-	6	-	-	-	-	-	4	-	-	
% 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 Count Name: Kensington Road and Dryden Place Site Code: Start Date: 07/07/2016 Page No: 6

Turning Movement Peak Hour Data (5:00 PM)

				ton Road			Kensington Road Westbound							Dryden Place Northbound						Dryden Place Southbound						
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total	
5:00 PM	0	13	32	7	0	52	0	13	48	15	1	76	0	7	73	15	2	95	0	10	59	22	0	91	314	
5:15 PM	0	20	40	6	2	66	0	13	60	22	1	95	0	6	67	18	0	91	0	14	46	14	2	74	326	
5:30 PM	0	21	30	5	1	56	0	12	57	14	1	83	0	3	65	20	1	88	0	13	48	29	1	90	317	
5:45 PM	0	17	43	7	1	67	0	9	66	16	0	91	0	2	65	21	2	88	0	15	55	22	1	92	338	
Total	0	71	145	25	4	241	0	47	231	67	3	345	0	18	270	74	5	362	0	52	208	87	4	347	1295	
Approach %	0.0	29.5	60.2	10.4	-	-	0.0	13.6	67.0	19.4	-	-	0.0	5.0	74.6	20.4	-	-	0.0	15.0	59.9	25.1	-	-	-	
Total %	0.0	5.5	11.2	1.9	-	18.6	0.0	3.6	17.8	5.2	-	26.6	0.0	1.4	20.8	5.7	-	28.0	0.0	4.0	16.1	6.7	-	26.8	-	
PHF	0.000	0.845	0.843	0.893	-	0.899	0.000	0.904	0.875	0.761	-	0.908	0.000	0.643	0.925	0.881	-	0.953	0.000	0.867	0.881	0.750	-	0.943	0.958	
Lights	0	71	141	25	-	237	0	47	230	67	-	344	0	18	269	74	-	361	0	52	206	87	-	345	1287	
% Lights	-	100.0	97.2	100.0	-	98.3	-	100.0	99.6	100.0	-	99.7	-	100.0	99.6	100.0	-	99.7	-	100.0	99.0	100.0	-	99.4	99.4	
Buses	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1	
% Buses	-	0.0	0.7	0.0	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1	
Single-Unit Trucks	0	0	3	0	-	3	0	0	0	0	-	0	0	0	1	0	-	1	0	0	2	0	-	2	6	
% Single-Unit Trucks	-	0.0	2.1	0.0	-	1.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.4	0.0	-	0.3	-	0.0	1.0	0.0	-	0.6	0.5	
Articulated Trucks	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1	
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.4	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1	
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	
Pedestrians	-	-	-	-	4	-	-	-	-	-	3	-	-	-	-	-	5	-	-	-	-	-	4	-	-	
% 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 Count Name: Kensington Road and Access Drives Site Code: Start Date: 07/07/2016 Page No: 1

Turning Movement Data

Pater in the series of the series o		l		Kensina	ton Road			l		Kensing	ton Road	in g i				Marianos A	ccess Driv	e				Plaza Aco	ess Drive			
U-Tur Lett Thru Right Peda C-Tur Lett Thru Right Peda C-Tur Lett Thru Right Peda Peda <										0										1						
10 M 0	Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
10 2 35 6 0 4 0 1 1 1 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0	7:00 AM	0	1	42	6	0	49	0	4	34	1	0	39	0	1	0	5	0	6	0	1	1	1	3	3	97
PAOM 0 1 43 5 5 6 90 7 10 10 11 10 11 10 11 10 11 10 11 100 11 100 11 100 11 100 11 100 11 100 10 11 100 100 11 100 11 100 11	7:15 AM	0	0	55	5	1	60	0	8	63	1	0	72	0	4	0	5	0	9	0	0	0	0	1	0	141
Hord 0 4 175 24 0 25 166 7 0 280 0 7 0 29 0 380 0 4 1 2 6 7 448 800AM 0 22 0 3 0 1 34 3 0 82 0 7 6 12 0 2 0 1 1 3 162 830AM 0 25 10 1 35 0 44 0 44 0 4 0 1 1 0 1 <th1< th=""> <th1< th=""> <th1< th=""></th1<></th1<></th1<>	7:30 AM	0	2	35	8	0	45	0	6	60	2	0	68	0	1	0	13	0	14	0	0	0	1	2	1	128
B0 AM 0 1 2 0 3 0 1 0 4 106 816 AM 0 3 0 1 0 4 106 816 AM 0 2 28 1 40 0 41 4 0 64 0 1 0 11 2 12 0 1 0 0 1 <td>7:45 AM</td> <td>0</td> <td>1</td> <td>43</td> <td>5</td> <td>5</td> <td>49</td> <td>0</td> <td>7</td> <td>39</td> <td>3</td> <td>0</td> <td>49</td> <td>0</td> <td>1</td> <td>0</td> <td>6</td> <td>0</td> <td>7</td> <td>0</td> <td>3</td> <td>0</td> <td>0</td> <td>0</td> <td>3</td> <td>108</td>	7:45 AM	0	1	43	5	5	49	0	7	39	3	0	49	0	1	0	6	0	7	0	3	0	0	0	3	108
8:5 AM 0 0 30 9 0 30 0 11 34 3 0 40 0 5 0 7 0 12 0 2 0 1 1 3 102 8:85 AM 0 2 25 1 40 0 4 46 5 0 4 0 6 1 0 1 0 0 1 1 102 BaseA 0 3 106 37 2 144 0 44 0 25 0 13 0 35 19 48 0 7 0 2 3 416 With Trait 0 0 14 66 1 30 1 18 38 0 0 4 1 19 24 0 4 1 0 2 3 3 14 4 3 0 2 1 0 0 2 1 10 0 1 16 16 16 16 16	Hourly Total	0	4	175	24	6	203	0	25	196	7	0	228	0	7	0	29	0	36	0	4	1	2	6	7	474
BashAM 0 0 2 2 1 1 0 5 1 0 1 <td>8:00 AM</td> <td>0</td> <td>1</td> <td>22</td> <td>9</td> <td>0</td> <td>32</td> <td>0</td> <td>10</td> <td>45</td> <td>3</td> <td>0</td> <td>58</td> <td>0</td> <td>3</td> <td>0</td> <td>9</td> <td>10</td> <td>12</td> <td>0</td> <td>3</td> <td>0</td> <td>1</td> <td>0</td> <td>4</td> <td>106</td>	8:00 AM	0	1	22	9	0	32	0	10	45	3	0	58	0	3	0	9	10	12	0	3	0	1	0	4	106
B8AM 0 2 9 1 400 4 46 5 0 55 0 1 1 0 0 1<	8:15 AM	0	0	30	9	0	39	0	11	34	3	0	48	0	5	0	7	6	12	0	2	0	1	1	3	102
Houry Treal 0 3 106 37 2 146 0 34 166 15 0 13 0 35 19 48 0 7 0 2 3 9 418 *** BRAK *** -	8:30 AM	0	0	25	10	1	35	0	9	41	4	0	54	0	1	0	11	2	12	0	1	0	0	1	1	102
Image part mark Image part	8:45 AM	0	2	29	9	1	40	0	4	46	5	0	55	0	4	0	8	1	12	0	1	0	0	1	1	108
4:00 PM 0 0 14 16 1 30 1 18 38 3 0 60 4 1 19 1 24 0 4 1 0 0 5 119 4:30 PM 0 1 37 20 77 0 9 0 22 0 32 0 2 1 0 0 2 14 4:30 PM 0 1 37 42 62 62 21 51 5 0 77 0 9 0 22 0 32 14 1 1 1 168 Houry Tatal 0 2 377 77 4 19 1 20 134 1 14 4 4 100 3 31 0 1 <td>Hourly Total</td> <td>0</td> <td>3</td> <td>106</td> <td>37</td> <td>2</td> <td>146</td> <td>0</td> <td>34</td> <td>166</td> <td>15</td> <td>0</td> <td>215</td> <td>0</td> <td>13</td> <td>0</td> <td>35</td> <td>19</td> <td>48</td> <td>0</td> <td>7</td> <td>0</td> <td>2</td> <td>3</td> <td>9</td> <td>418</td>	Hourly Total	0	3	106	37	2	146	0	34	166	15	0	215	0	13	0	35	19	48	0	7	0	2	3	9	418
4:16 PM 0 2 19 20 0 22 0 32 0 2 1 0 0 2 1 0 0 2 1 0 0 2 1 0 0 2 1 0 0 2 1 1 0 1 1 0 0 2 1 1 0 1 1 0 1 <th< td=""><td>*** BREAK ***</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td></td><td>-</td></th<>	*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
4:30 PM 0 1 37 24 2 62 0 21 61 5 0 77 0 9 0 24 4 33 0 2 0 0 2 2 174 4:40 PM 0 2 37 17 1 56 0 23 54 3 0 80 0 12 0 19 3 31 0 1 0 0 1 1 160 5:00 PM 0 2 30 15 1 47 0 22 47 5 0 74 0 9 0 22 0 31 0 4 1 0 5 157 5:16 PM 0 5 25 17 1 47 0 192 21 0 5 1 33 0 3 0 1 0 7 185 5 7 1<	4:00 PM	0	0	14	16	1	30	1	18	38	3	0	60	0	4	1	19	1	24	0	4	1	0	0	5	119
445 PM 0 2 37 17 1 56 0 23 54 3 0 80 0 12 0 19 3 31 0 1 0 1 1 168 Houry Total 0 5 107 77 4 189 1 79 196 13 0 22 0 31 0 4 0 1 0 5 157 5x0 PM 0 5 25 17 1 47 0 19 62 0 37 0 4 1 0 3 5 178 5x0 PM 0 2 26 14 1 42 0 36 59 4 0 99 0 7 1 29 0 37 0 4 2 1 0 4 177 1 64 0 34 0 34 1 16 0 33 3 21 1 16 33 3 3 3 3	4:15 PM	0	2	19	20	0	41	0	17	53	2	0	72	1	9	0	22	0	32	0	2	1	0	0	3	148
Houty Total 0 5 107 77 4 189 1 79 196 13 0 289 1 34 1 84 8 120 0 9 2 0 3 11 609 50:0 PM 0 2 30 15 1 47 0 22 47 5 0 74 0 9 0 2 0 31 0 4 0 5 177 1 0 5 177 1 27 0 31 0 4 0 5 178 0 3 0 1 0 5 178 1 20 36 59 4 0 90 37 0 4 2 1 0 2 1 0 2 1 16 0 2 1 1 28 0 8 2 39 1 49 0 3 3	4:30 PM	0	1	37	24	2	62	0	21	51	5	0	77	0	9	0	24	4	33	0	2	0	0	2	2	174
5:00 PM 0 2 30 15 1 47 0 22 47 5 0 74 0 9 0 22 0 31 0 4 0 1 0 5 157 5:30 PM 0 5 25 17 1 47 0 19 62 6 0 87 0 5 1 33 0 39 0 4 1 0 3 5 178 5:30 PM 0 2 26 13 1 41 0 25 51 6 0 82 0 8 2 39 1 49 0 3 0 1 0 1 0 4 0 4 0 3 0 1 23 1 1 83 0 3 1 1 0 1 23 1 1 1 0 3 0 <t< td=""><td>4:45 PM</td><td>0</td><td>2</td><td>37</td><td>17</td><td>1</td><td>56</td><td>0</td><td>23</td><td>54</td><td>3</td><td>0</td><td>80</td><td>0</td><td>12</td><td>0</td><td>19</td><td>3</td><td>31</td><td>0</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td><td>168</td></t<>	4:45 PM	0	2	37	17	1	56	0	23	54	3	0	80	0	12	0	19	3	31	0	1	0	0	1	1	168
5:15 PM 0 5 25 17 1 47 0 19 62 6 0 87 0 5 1 33 0 39 0 4 1 0 3 5 178 5:45 PM 0 2 26 14 1 42 0 36 5 47 1 29 0 37 0 4 2 1 0 7 185 5:45 PM 0 23 49 1 100 5 1 34 0 39 1 49 0 3 0 4 1 0 4 176 Houry Total 0 11 107 59 4 177 0 102 219 21 342 0 23 113 14 75.3 3 3 3 3 21 686 Grand Total 0 23 473 123 72.3 </td <td>Hourly Total</td> <td>0</td> <td>5</td> <td>107</td> <td>77</td> <td>4</td> <td>189</td> <td>1</td> <td>79</td> <td>196</td> <td>13</td> <td>0</td> <td>289</td> <td>1</td> <td>34</td> <td>1</td> <td>84</td> <td>8</td> <td>120</td> <td>0</td> <td>9</td> <td>2</td> <td>0</td> <td>3</td> <td>11</td> <td>609</td>	Hourly Total	0	5	107	77	4	189	1	79	196	13	0	289	1	34	1	84	8	120	0	9	2	0	3	11	609
5:30 PM 0 2 26 14 1 42 0 36 59 4 0 99 0 7 1 29 0 37 0 4 2 1 0 7 185 5:45 PM 0 2 26 13 1 41 0 25 51 6 0 82 0 8 2 39 1 49 0 3 0 1 0 4 176 Grand Total 0 23 495 197 16 715 1 240 777 56 0 174 1 83 5 271 28 360 0 33 3 21 648 Approach % 0.0 3.2 69.2 27.0 3.3 3 3 3 3 3 21 648 21 21 1.4 75.3 1.4 1.4 75.3 1.4 1.4	5:00 PM	0	2	30	15	1	47	0	22	47	5	0	74	0	9	0	22	0	31	0	4	0	1	0	5	157
545 PM 0 2 26 13 1 41 0 25 51 6 0 82 0 8 2 39 1 49 0 3 0 1 0 4 176 Houry Total 0 11 107 59 4 177 0 102 219 21 0 342 0 29 4 123 1 156 0 15 3 3 3 21 1696 Grand Total 0 3.2 495 197 16 715 1 240 777 56 0 1074 1 83 5 271 28 360 0 35 6 7 15 48 2197 Approach 0.0 1.0 2.25 9.0 3.25 0.0 10.5 35 0.0 38 0.2 12.3 7.5 7.6 6 7 7.6 7.6	5:15 PM	0	5	25	17	1	47	0	19	62	6	0	87	0	5	1	33	0	39	0	4	1	0	3	5	178
Houry Total 0 11 107 59 4 177 0 102 219 21 0 342 0 29 4 123 1 156 0 15 3 3 3 21 696 Grand Total 0 23 495 197 16 715 1 240 777 56 0 1074 1 83 5 271 28 360 0 325 6 7 15 48 2197 Approach% 0.0 3.2 69.2 27.6 - 0.1 22.3 72.3 5.2 - 48.9 0.0 3.8 0.2 12.3 - 16.4 0.0 1.6 0.3 0.3 - 2.2 - 100 98.6 96.5 100.0 97.5 5 10.0 98.8 100.0 99.6 99.2 - 100.0 100.0 - 0 2 0 0 <t< td=""><td>5:30 PM</td><td>0</td><td>2</td><td>26</td><td>14</td><td>1</td><td>42</td><td>0</td><td>36</td><td>59</td><td>4</td><td>0</td><td>99</td><td>0</td><td>7</td><td>1</td><td>29</td><td>0</td><td>37</td><td>0</td><td>4</td><td>2</td><td>1</td><td>0</td><td>7</td><td>185</td></t<>	5:30 PM	0	2	26	14	1	42	0	36	59	4	0	99	0	7	1	29	0	37	0	4	2	1	0	7	185
Grand Total 0 23 495 197 16 715 1 240 777 56 0 1074 1 83 5 271 28 360 0 35 6 7 15 48 2197 Approach% 0.0 3.2 69.2 27.6 - - 0.1 22.3 72.3 5.2 - - 0.3 23.1 1.4 75.3 - - 0.0 72.9 12.5 14.6 - - - - - 0.3 23.1 1.4 75.3 - - 0.0 72.9 12.5 14.6 - - - - - 100.0 70 - 7 0 0 95.6 90.0 - 95.6 90.0 - 95.6 90.0 - 15 1 1 0 0 - 100.0 100.0 100.0 100.0 100.0 100.0 100.0 1	5:45 PM	0	2	26	13	1	41	0	25	51	6	0	82	0	8	2	39	1	49	0	3	0	1	0	4	176
Approach % 0.0 3.2 69.2 27.6 - 0.1 22.3 72.3 5.2 - - 0.3 23.1 1.4 75.3 - - 0.0 72.9 12.5 14.6 - - - - 0.0 72.9 12.5 14.6 - - - - 0.0 72.9 12.5 14.6 - - - - 0.0 72.9 12.5 14.6 - - - - 0.0 72.9 12.5 14.6 - - - 2.2 - 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 12.0 14.1 10.0 15.0 - 15.1 1 1 0 0 2.0 0 0 0 0 0 0 0 10.0 10.0 1.1 <td>Hourly Total</td> <td>0</td> <td>11</td> <td>107</td> <td>59</td> <td>4</td> <td>177</td> <td>0</td> <td>102</td> <td>219</td> <td>21</td> <td>0</td> <td>342</td> <td>0</td> <td>29</td> <td>4</td> <td>123</td> <td>1</td> <td>156</td> <td>0</td> <td>15</td> <td>3</td> <td>3</td> <td>3</td> <td>21</td> <td>696</td>	Hourly Total	0	11	107	59	4	177	0	102	219	21	0	342	0	29	4	123	1	156	0	15	3	3	3	21	696
Total % 0.0 1.0 22.5 9.0 - 32.5 0.0 10.9 35.4 2.5 - 48.9 0.0 3.8 0.2 12.3 - 16.4 0.0 1.6 0.3 0.3 - 2.2 - Lights 0 23 473 195 691 0 239 750 56 1045 0 82 5 270 - 357 0 35 6 7 - 48 2141 % Lights - 100.0 95.6 99.0 - 96.6 0.0 99.6 97.3 0.0 98.8 100.0 99.6 99.2 - 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 110 0 0 - 14 100.0 1.2 0.0 0.6 - 0.0 0.0 - 0.0 0.0 0.0 0.0 0.0 0.0 <td>Grand Total</td> <td>0</td> <td>23</td> <td>495</td> <td>197</td> <td>16</td> <td>715</td> <td>1</td> <td>240</td> <td>777</td> <td>56</td> <td>0</td> <td>1074</td> <td>1</td> <td>83</td> <td>5</td> <td>271</td> <td>28</td> <td>360</td> <td>0</td> <td>35</td> <td>6</td> <td>7</td> <td>15</td> <td>48</td> <td>2197</td>	Grand Total	0	23	495	197	16	715	1	240	777	56	0	1074	1	83	5	271	28	360	0	35	6	7	15	48	2197
Lights 0 23 473 195 - 691 0 239 750 56 - 1045 0 82 5 270 - 357 0 35 6 7 - 48 2141 % Lights - 100.0 95.6 99.0 - 96.6 0.0 99.6 97.3 0.0 98.8 100.0 99.2 - 100.0 100.0 100.0 100.0 100.0 97.5 Buses 0 0 7 0 - 7 0 15 0 - 15 1 1 0 0 2 0 0 0 0 100.0	Approach %	0.0	3.2	69.2	27.6	-	-	0.1	22.3	72.3	5.2	-	-	0.3	23.1	1.4	75.3	-	-	0.0	72.9	12.5	14.6	-	-	-
% Lights - 100.0 95.6 99.0 - 96.6 0.0 99.6 97.3 0.0 98.8 100.0 99.2 - 100.0	Total %	0.0	1.0	22.5	9.0	-	32.5	0.0	10.9	35.4	2.5	-	48.9	0.0	3.8	0.2	12.3	-	16.4	0.0	1.6	0.3	0.3	-	2.2	-
Buses 0 7 0 - 7 0 0 15 0 - 15 1 1 0 0 - 2 0 0 0 0 - 0 24 % Buses - 0.0 1.4 0.0 - 1.0 0.0 0.0 1.9 0.0 - 1.4 100.0 1.2 0.0 0.0 - 0.0 0.0 0.0 0.0 0.0 1.1 Single-Unit Trucks 0 0 1.3 0 - 1.3 1 1 7 0 - 9 0 0 0.1 - 1.0 0.0 0.0 0.0 1.1 Single-Unit Trucks 0.0 2.6 0.0 - 1.8 100.0 0.4 0.9 0.0 - 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Lights	0	23	473	195	-	691	0	239	750	56	-	1045	0	82	5	270	-	357	0	35	6	7	-	48	2141
% Buses - 0.0 1.4 0.0 - 1.0 0.0 1.9 0.0 - 1.4 100.0 1.2 0.0 0.0 - 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.1 Single-Unit Trucks 0 0 1.3 1 1 7 0 - 9 0 0.0 0.1 - 1 0 0.0 0.0 0.0 1.2 % Single-Unit Trucks 0 0.0 2.6 0.0 - 1.8 100.0 0.4 0.9 0.0 - 0.8 0.0 0.0 0.4 - 0.3 - 0.0 0.0 0.0 1.0 Articulated Trucks 0 0.0 0.0 0.2 0 - 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 <td>% Lights</td> <td>-</td> <td>100.0</td> <td>95.6</td> <td>99.0</td> <td>-</td> <td>96.6</td> <td>0.0</td> <td>99.6</td> <td>96.5</td> <td>100.0</td> <td>-</td> <td>97.3</td> <td>0.0</td> <td>98.8</td> <td>100.0</td> <td>99.6</td> <td>-</td> <td>99.2</td> <td>-</td> <td>100.0</td> <td>100.0</td> <td>100.0</td> <td>-</td> <td>100.0</td> <td>97.5</td>	% Lights	-	100.0	95.6	99.0	-	96.6	0.0	99.6	96.5	100.0	-	97.3	0.0	98.8	100.0	99.6	-	99.2	-	100.0	100.0	100.0	-	100.0	97.5
Single-Unit Trucks 0 0 13 0 - 13 1 1 7 0 - 9 0 0 1 - 1 0 0 0 0 - 0 23 % Single-Unit Trucks - 0.0 2.6 0.0 - 1.8 100.0 0.4 0.9 0.0 - 0.8 0.0 0.0 0.4 - 0.3 - 0.0 0.0 0.0 1.0 Articulated Trucks 0 0 0 0 0 0 0 0 0 0 0 0 0.0 <th< td=""><td>Buses</td><td>0</td><td>0</td><td>7</td><td>0</td><td>-</td><td>7</td><td>0</td><td>0</td><td>15</td><td>0</td><td>-</td><td>15</td><td>1</td><td>1</td><td>0</td><td>0</td><td>-</td><td>2</td><td>0</td><td>0</td><td>0</td><td>0</td><td>-</td><td>0</td><td>24</td></th<>	Buses	0	0	7	0	-	7	0	0	15	0	-	15	1	1	0	0	-	2	0	0	0	0	-	0	24
% Single-Unit Trucks - 0.0 2.6 0.0 - 1.8 100.0 0.4 0.9 0.0 - 0.0 0.0 0.4 - 0.8 0.0 0.0 0.4 - 0.3 - 0.0 0.0 0.0 0.0 0.0 0.4 - 0.3 - 0.0 0.0 0.0 0.0 0.0 0.0 0.4 - 0.3 - 0.0	% Buses	-	0.0	1.4	0.0	-	1.0	0.0	0.0	1.9	0.0	-	1.4	100.0	1.2	0.0	0.0	-	0.6	-	0.0	0.0	0.0	-	0.0	-
Trücks - 0.0 2.6 0.0 - 1.8 100.0 0.4 0.9 0.0 - 0.8 0.0 0.0 0.4 - 0.0<	Single-Unit Trucks	0	0	13	0	-	13	1	1	7	0	-	9	0	0	0	. 1	-	1	0	0	0	0	-	0	23
% Articulated Trucks - 0.0 0.0 0.0 0.0 0.0 0.3 0.0 - 0.2 0.0		-	0.0	2.6	0.0	-	1.8	100.0	0.4	0.9	0.0	-	0.8	0.0	0.0	0.0	0.4	-	0.3	-	0.0	0.0	0.0	-	0.0	1.0
Trucks - 0.0	Articulated Trucks	0	0	0	0	-	0	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	2
% Bicycles on Road - 0.0 0.4 1.0 - 0.6 0.0 0.4 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	0.3	0.0	-	0.2	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Road - 0.0 0.4 1.0 - 0.6 0.0 0.4 0.0 - 0.3 0.0 0.0 0.0 - 0.0	Bicycles on Road	0	0	2	2	-	4	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	7
Pedestrians 16 0 28 15 - 15 -		-	0.0	0.4	1.0	-	0.6	0.0	0.0	0.4	0.0	-	0.3	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.3
	Pedestrians	-	-	-	-	16	-	-	-	-	-	0	-	-	-	-	-	28	-	-	-	-	-	15	-	-



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

Rosemont, Illinois, United States 60018 (847)518-9990 Count Name: Kensington Road and Access Drives Site Code: Start Date: 07/07/2016 Page No: 4

Turning Movement Peak Hour Data (7:15 AM)

	1						1					00		- 414	(,,			1						
			Kensing	ton Road					Kensing	ton Road				r	Marianos A	ccess Driv	е				Plaza Acc	ess Drive			
			East	bound					West	bound					North	bound					South	bound			
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:15 AM	0	0	55	5	1	60	0	8	63	1	0	72	0	4	0	5	0	9	0	0	0	0	1	0	141
7:30 AM	0	2	35	8	0	45	0	6	60	2	0	68	0	1	0	13	0	14	0	0	0	1	2	1	128
7:45 AM	0	1	43	5	5	49	0	7	39	3	0	49	0	1	0	6	0	7	0	3	0	0	0	3	108
8:00 AM	0	1	22	9	0	32	0	10	45	3	0	58	0	3	0	9	10	12	0	3	0	1	0	4	106
Total	0	4	155	27	6	186	0	31	207	9	0	247	0	9	0	33	10	42	0	6	0	2	3	8	483
Approach %	0.0	2.2	83.3	14.5	-	-	0.0	12.6	83.8	3.6	-	-	0.0	21.4	0.0	78.6	-	-	0.0	75.0	0.0	25.0	-	-	-
Total %	0.0	0.8	32.1	5.6	-	38.5	0.0	6.4	42.9	1.9	-	51.1	0.0	1.9	0.0	6.8	-	8.7	0.0	1.2	0.0	0.4	-	1.7	-
PHF	0.000	0.500	0.705	0.750	-	0.775	0.000	0.775	0.821	0.750	-	0.858	0.000	0.563	0.000	0.635	-	0.750	0.000	0.500	0.000	0.500	-	0.500	0.856
Lights	0	4	147	27	-	178	0	31	194	9	-	234	0	9	0	33	-	42	0	6	0	2	-	8	462
% Lights	-	100.0	94.8	100.0	-	95.7	-	100.0	93.7	100.0	-	94.7	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	95.7
Buses	0	0	1	0	-	1	0	0	7	0	-	7	0	0	0	0	-	0	0	0	0	0	-	0	8
% Buses	-	0.0	0.6	0.0	-	0.5	-	0.0	3.4	0.0	-	2.8	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	1.7
Single-Unit Trucks	0	0	7	0	-	7	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	10
% Single-Unit Trucks	-	0.0	4.5	0.0	-	3.8	-	0.0	1.4	0.0	-	1.2	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	2.1
Articulated Trucks	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.5	0.0	-	0.4	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	2
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	1.0	0.0	-	0.8	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.4
Pedestrians	-	-	-	-	6	-	-	-	-	-	0	-	-	-	-	-	10	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	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 Count Name: Kensington Road and Access Drives Site Code: Start Date: 07/07/2016 Page No: 6

Turning Movement Peak Hour Data (5:00 PM)

			-	ton Road		Kensington Road Marianos Access Drive Westbound Northbound										Plaza Acc South									
Start Time	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
5:00 PM	0	2	30	15	1	47	0	22	47	5	0	74	0	9	0	22	0	31	0	4	0	1	0	5	157
5:15 PM	0	5	25	17	1	47	0	19	62	6	0	87	0	5	1	33	0	39	0	4	1	0	3	5	178
5:30 PM	0	2	26	14	1	42	0	36	59	4	0	99	0	7	1	29	0	37	0	4	2	1	0	7	185
5:45 PM	0	2	26	13	1	41	0	25	51	6	0	82	0	8	2	39	1	49	0	3	0	1	0	4	176
Total	0	11	107	59	4	177	0	102	219	21	0	342	0	29	4	123	1	156	0	15	3	3	3	21	696
Approach %	0.0	6.2	60.5	33.3	-	-	0.0	29.8	64.0	6.1	-	-	0.0	18.6	2.6	78.8	-	-	0.0	71.4	14.3	14.3	-	-	-
Total %	0.0	1.6	15.4	8.5	-	25.4	0.0	14.7	31.5	3.0	-	49.1	0.0	4.2	0.6	17.7	-	22.4	0.0	2.2	0.4	0.4	-	3.0	-
PHF	0.000	0.550	0.892	0.868	-	0.941	0.000	0.708	0.883	0.875	-	0.864	0.000	0.806	0.500	0.788	-	0.796	0.000	0.938	0.375	0.750	-	0.750	0.941
Lights	0	11	105	59	-	175	0	102	217	21	-	340	0	29	4	122	-	155	0	15	3	3	-	21	691
% Lights	-	100.0	98.1	100.0	-	98.9	-	100.0	99.1	100.0	-	99.4	-	100.0	100.0	99.2	-	99.4	-	100.0	100.0	100.0	-	100.0	99.3
Buses	0	0	1	0	-	1	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
% Buses	-	0.0	0.9	0.0	-	0.6	-	0.0	0.5	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	1	0	-	1	0	0	1	0	-	1	0	0	0	1	-	1	0	0	0	0	-	0	3
% Single-Unit Trucks	-	0.0	0.9	0.0	-	0.6	-	0.0	0.5	0.0	-	0.3	-	0.0	0.0	0.8	-	0.6	-	0.0	0.0	0.0	-	0.0	0.4
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Level of Service Criteria

Level of		Average Control Delay
Service	Interpretation	(seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
В	Good progression, with more vehicles stopping than for Level of Service A.	>10 - 20
С	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
Е	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.	>80.0

LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

LEVEL OF SERVICE CRITERIA	FOR UNSIGNALIZED INTERSECTIONS
Level of Service	Average Total Delay (SEC/VEH)
А	0 - 10
В	> 10 - 15
С	> 15 - 25
D	> 25 - 35
E	> 35 - 50
F	> 50
Source: Highway Canagity Manual 2010	

LEVEL OF SEDVICE CDITEDIA FOR LINGICNALIZED INTERSECTIONS

Source: Highway Capacity Manual, 2010.

Capacity Analysis Summary Sheets

HCS 2010 Signalized Intersection Input Data

				le elg	manie		01000		imput	Bata					
General Inform	nation								Intersec	tion Inf	ormatio	on		4241	Ja La
Agency		KLOA, Inc.							Duration		0.25			44	
Analyst		NJB		Analys	sis Date	7/13/2	016		Area Typ		Other	•			₹
Jurisdiction		Arlington Heights		Time F		AM			PHF	-	0.82			w∳e	 ↓ ↓
Urban Street		Kensington Road		<u> </u>	sis Year				Analysis	Period	1> 7:0	00			→ *
Intersection		Kensington Road a	nd D	File Na			naton ar	nd Dry	yden Exis					5 1	
Project Descrip	tion	AM Existing Peak H					gion a		,					114Y	<u>۲</u>
· · •) • • • • • • •															
Demand Inform	nation				EB			W	В		NB			SB	
Approach Move	ement			L	Т	R	L	Т	R	L	Т	R	L	Т	R
Demand (v), v	eh/h			35	187	19	23	20	9 95	22	116	34	65	208	66
				1			- II-	1							
Signal Informa		1	1	-		215				3	E l		-+-		_
Cycle, s	95.0	Reference Phase	2		5	ľ	51		T.		E	1	\mathbf{Y}_{2}	¥ _	€ ₄
Offset, s	0	Reference Point	Begin	Green	3.0	1.0	52.1	3.2	2 0.7	17.0)				- -
Uncoordinated	No	Simult. Gap E/W	On	Yellow		0.0	4.5	3.0		4.5		<u> </u>			Y
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	1.5	0.0	0.0	1.5		5	6	7	8
			_				1						1		
Traffic Informa					EB			WE			NB			SB	
Approach Move				L	T	R	L	T	R	L	T	R	L	Т	R
Demand (v), ve		//-		35	187	19	23	209	_	22	116	34	65	208	66
Initial Queue (C				0 1900	0 1900	0	0	0	0	0	0	0	0	0	0
	ase Saturation Flow Rate (so), veh/h arking (Nm), man/h					1900	1900	200	_	1900	1900	1900	1900	1900	1900
	arking (<i>Nm</i>), man/h eavy Vehicles (<i>P</i> HV), %						0	Non	_	47	None 4		2	None 3	
Ped / Bike / RT		70		7 0	5 0	0	0	6	4	17	4	0	2		
Buses (<i>N</i> _b), bus				0	0	0	0	0	0	0	0	0	0	0	0
				3	3	3	3	3	3	3	3	3	3	3	3
Arrival Type (A Upstream Filter				1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W)				12.0	12.0	1.00	12.0	12.0	_	12.0	12.0	1.00	12.0	12.0	1.00
Turn Bay Lengt				115	0		115	0	160	95	0		12.0	0	
Grade (<i>Pg</i>), %	11, IL			113	0		113	0	100	30	0		120	0	
Speed Limit, mi	i/b			30		30	30		30	30	-	30	20	20	20
	/11			50	00	50	00	00	00	00	00	00	20	20	20
Phase Informa	tion			EBL	-	EBT	WBI	L	WBT	NBL	_	NBT	SBL	-	SBT
Maximum Gree	n (<i>G</i> max)) or Phase Split, s		9.0		30.0	9.0		30.0	12.0)	44.0	12.0)	44.0
Yellow Change	Interval	I (Y), s		3.0		4.5	3.0		4.5	3.0		4.5	3.0		4.5
Red Clearance	Interval	l (<i>Rc</i>), s		0.0		1.5	0.0		1.5	0.0		1.5	0.0		1.5
Minimum Greer	ר (<i>Gmin</i>)	, S		3		10	3		10	3		15	3		15
Start-Up Lost T	ime (<i>lt</i>)	, S		2.0		2.0	2.0		2.0	2.0		2.0	2.0		2.0
Extension of Eff	fective C	Green (<i>e</i>), s		2.0		2.0	2.0		2.0	2.0		2.0	2.0		2.0
Passage (PT), s	S			3.0		4.0	3.0		4.0	3.0		7.0	3.0		7.0
Recall Mode				Off		Off	Off		Off	Off		Min	Off		Min
Dual Entry	-					Yes	Yes	;	Yes	Yes		Yes	Yes		Yes
Walk (<i>Walk</i>), s				0.0		7.0	0.0		7.0	0.0		7.0	0.0		7.0
Pedestrian Clea	edestrian Clearance Time (PC), s					14.0	0.0		15.0	0.0		14.0	0.0		15.0
Multimodal Inf	lultimodal Information							WB			NB			SB	
· · · ·		Walk / Corner Radi	us	0	No	25	0	No	25	0	No	25	0	No	25
-		Vidth / Length, ft		9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Is				0	0	No	0	0	No	0	0	No	0	0	No
		ane / Shoulder, ft		12	5.0	2.0	12	5.0		12	5.0	2.0	12	5.0	2.0
Pedestrian Sigr	nal / Oco	cupied Parking		No		0.50	No		0.50	No		0.50	No		0.50

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HCS 2010 Signalized Intersection Results Summary

			.9						•	.				
General Information)							Interse	ction Inf	ormatio	on		4244	be La
Agency	KLOA, Inc.							Duratio		0.25			44	
Analyst	NJB		Analys	is Dat	e 7/13/2	2016		Area Ty		Other		7 4		₹. *
Jurisdiction	Arlington Heights		Time F		AM	.010		PHF	рс <u></u>	0.82		×	w Fe	×_ ↓ ↓
Urban Street	Kensington Road		Analys						s Period	1> 7:0	00			+ ₹
Intersection	Kensington Road a	nd D	File Na		_	naton a	nd Dr	-	isting AN		00			E C
Project Description	AM Existing Peak H		File Na	ame	Interior	igion a		yuen Ex		1.XUS		_	ो [* इ.स.कल्प	
Project Description	AM EXISTING PEAK	1001												
Demand Informatio	n			EB			W	/B		NB			SB	
Approach Movement			L	Т	R	L	-	ΓR	L	Т	R	L	Т	R
Demand (v), veh/h			35	187	19	23	20	09 95	5 22	116	34	65	208	66
1														
Signal Information		1	1	5	215				3	\leq				_
Cycle, s 95.0	Reference Phase	2		5	1	1 <u>5</u> 1	~ [``	Æ		e	1	\mathbf{Y}_{2}	¥ _	- € ₄
Offset, s 0	Reference Point	Begin	Green	3.0	1.0	52.1	3.:	2 0.7	17.	<u> </u>		-		K
Uncoordinated No	Simult. Gap E/W	On	Yellow		0.0	4.5	3.) 4.5		$\langle \langle \langle \rangle \rangle$			7
Force Mode Fixe	d Simult. Gap N/S	On	Red	0.0	0.0	1.5	0.	0.0) 1.5		5	6	7	8
													i	
Timer Results			EBL	- -	EBT	WB	L	WBT	NB	L	NBT	SBI		SBT
Assigned Phase			7		4	3		8	5		2	1		6
Case Number			1.1		4.0	1.1		3.0	1.1		4.0	1.1		4.0
Phase Duration, s			6.9 3.0		23.7	6.2		23.0	6.0		58.1	7.0		59.1
	nange Period, (Y+R c), s ax Allow Headway (<i>MAH</i>), s				6.0	3.0		6.0	3.0)	6.0	3.0		6.0
	ax Allow Headway (<i>MAH</i>), s				5.1	4.1		5.1	4.1		0.0	4.2		0.0
	ueue Clearance Time (g_s), s				14.7	3.2		14.2	2.7			3.8		
Green Extension Tim	· • ·		0.0		2.8	0.0		2.8	0.0		0.0	0.2		0.0
Phase Call Probabilit	у		1.00		1.00	1.00		1.00	1.0			1.00		
Max Out Probability			1.00)	0.21	1.00)	0.22	0.0	0		0.00)	
Movement Group R	esults			EB			W	3		NB			SB	
Approach Movement			L	Т	R	L	Т	R	L	Т	R	L	Т	R
Assigned Movement			7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (<i>v</i>), veh/h		43	251		28	25	5 116	27	183		79	334	
-	Flow Rate (s), veh/h/	In	1691	1780		1810	188			1755		1774	1768	
Queue Service Time			1.9	12.7	_	1.2	12.		0.7	5.0		1.8	9.8	
Cycle Queue Clearar	· • ·		1.9	12.7	_	1.2	12.		0.7	5.0		1.8	9.8	
Green Ratio (q/C)			0.22	0.19	_	0.21	0.1	_		0.55		0.59	0.56	
Capacity (<i>c</i>), veh/h			199	332		173	337			963		744	988	
Volume-to-Capacity I	Ratio (X)		0.214		·	0.162	0.75			0.190		0.107	0.338	
	ft/ln (95 th percentile)	38.1	246.7	_	25.2	260			88		33.5	181.9	
	veh/ln (95 th percent	,	1.4	9.9		1.0	10.		0.4	3.5		1.3	7.3	
	(RQ) (95 th percen		0.33	0.00		0.21	0.0			0.00		0.27	0.00	
Uniform Delay (d 1),	· /· ·		30.5	36.6		31.0	37.	1 34.6	9.1	10.8		8.5	11.4	
Incremental Delay (0.5	5.0		0.4	4.9		0.0	0.4		0.1	0.9	
	itial Queue Delay (<i>d</i> ₃), s/veh					0.0	0.0	_	0.0	0.0		0.0	0.0	
Control Delay (d), s	·		0.0 31.0	0.0 41.6		31.4	42.		_	11.2		8.5	12.3	
Level of Service (LO			С	D		С	D	D	A	В		A	В	
Approach Delay, s/ve	•		40.1		D	39.5		D	11.0		В	11.6		В
Intersection Delay, s/						6.3						С		
			·											
Multimodal Results	timodal Results						W	3		NB			SB	
Pedestrian LOS Sco	e / LOS		2.3		В	2.3		В	2.4		В	2.2		В
Bicycle LOS Score /	LOS		1.0		А	1.1		А	0.8	3	А	1.2		А

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HCS 2010 Signalized Intersection Intermediate Values

		ПС <u>5</u> 20	10	Sig	nanz	eu ini	.ei 5	Secu		me		JIALE	valu	163					
General Informat	tion										Intore	section	Infor	mat	ion		و بلي إنه ال	5 L 5 L	
	1	KLOA, Inc.										ion, h	10	0.25			*		
Agency Analyst		NJB			Analya	is Date	7/19	2/201	6					O.25 Othe					r k
-					Time F		AM		0		Area PHF	туре		0.82				1.	
Jurisdiction		Arlington Heights					201					vaia Dar		0.62 1> 7					√ ←
Urban Street		Kensington Road	n al F		-	is Year						sis Per			.00	-È_			5
Intersection		Kensington Road a			File Na	ame	Ker	nsingt	on ar	ומ DI	ryden E	Existing	AIVI.X	us		_	<u>)</u>		
Project Description	n	AM Existing Peak H	lour																
Demand Information	tion					EB				V	VB			NE	3		S	В	
Approach Moveme	ent				L	Т	F	R	L		Т	R	L	Т	R	L	-	Г	R
Demand (v), veh	n/h				35	187	1	9	23	2	09	95	22	11(6 34	65	20)8 (66
Signal Information	on		12				20	7	Д.		,	7	_		l		_		
Cycle, s 9	95.0	Reference Phase	2	2		5	1	1	542		″ ″⊨	€ ŀ	3			Y		\mathbf{H}	•
Offset, s	0	Reference Point	Be	gin	Green	3.0	1.0) !	:11 52.1	3.	2 ().7	17.0						
Uncoordinated	No	Simult. Gap E/W	C		Yellow		0.0		4.5	3.			4.5		<u> </u>	♪ _	_		~
Force Mode Fi	ixed	Simult. Gap N/S	C	n	Red	0.0	0.0) (1.5	0.	.0 0).0	1.5		5	6		7	8
			4		EB		_		W	1			N	1	-		SE	ii.	
Saturation Flow /		,	4	L	Т	R		L	Т		R	L		Г	R	L	Т	_	R
Lane Width Adjust		. ,	4	1.000	_			1.000	1.00	-	1.000	1.000		_	1.000	1.000	1.00		000
Heavy Vehicle Adj	-		_	0.935				1.000	0.94		0.962	0.855	_		1.000	0.980	0.97		000
	oproach Grade Adjustment Factor (f_g)					_		1.000	1.00		1.000	1.000		000	1.000	1.000	1.00	_	000
	arking Activity Adjustment Factor (f_p)			1.000				1.000	1.00		1.000	1.000		000	1.000	1.000	1.00		000
Bus Blockage Adju			_	1.000		_		1.000	1.00	-	1.000	1.000		_	1.000	1.000	1.00	_	000
Area Type Adjustn			4	1.000				1.000	1.00		1.000	1.000			1.000	1.000	1.00		000
Lane Utilization Ac	-			1.000				1.000	1.00		1.000	1.000		000	1.000	1.000	1.00		000
Left-Turn Adjustme			_	0.952	_		0	0.952	0.00	00		0.952	0.0	000		0.952	0.00		
Right-Turn Adjustr		. ,	_		0.98	34			0.00	00			0.9	61			0.95	i8	
		ljustment Factor (fL	-	1.000)			1.000				1.000				1.000			
-		justment Factor (fR	ob)			1.00					1.000				1.000				000
		low Rate (s), veh/h	4	1691	_	_		1810	188			1547	13			1774	134		
		Arriving on Green (F	')	0.04	0.1	9 0.19	9 (0.03	0.1	8	0.18	0.03	0.	55	0.55	0.04	0.5	6 0.	.56
Incremental Delay	/ Facto	or (<i>k</i>)		0.11	0.1	5	(0.11	0.1	5	0.15	0.11	0.9	50		0.11	0.5	0	
	1	cont Crowns								10/		NI		N		CDI		ODT	/D
Signal Timing / N	loven	nent Groups	+		BL	EBT/R	-	WB			BT/R	NE			IBT/R	SBI		SBT/	
Lost Time (t) Green Ratio (g/C)				3. 0.2		6.0 0.19	+	3.0 0.2			6.0).18	3. 0.5			6.0 0.55	3.0 0.59		6.0 0.56	
		ow Rate (sp), veh/h/	ln.	10				114	_		0	90				1196	_	0.50	,
		Rate (Sp), veh/h/		10	00	0		114	0		0	90	0		0	1196	,	0	
				17	0	0.0		17.(0.0	52	1	_	0.0	52.1		0.0	
Permitted Effective Permitted Service			-	4.		0.0	+	3.0			0.0	52 41			0.0	47.1		0.0	
						0.0				l	0.0			_	0.0		_	0.0	
	ermitted Queue Service Time $(g_{\rho s})$, s			0.		0.0	╋	0.4	-		0.0	0.			0.0	0.4	-	0.0	
	me to First Blockage (<i>gi</i>), s ueue Service Time Before Blockage (<i>gi</i> s), s			0.	0	0.0		0.0		(0.0	0.	0	_	0.0	0.0		0.0	
			_				+				0								
-		ion Flow (<i>s</i> _R), veh/h	_								0.0			_					
	nectiv	e Green Time (<i>g</i> _R),	5)	+				0.0								
Multimodal			-		EE			4 ==	W					IB	0.00		SE		
Pedestrian Fw / Fv				1.5		0.00		1.55			0.00	1.7			0.00	1.55		0.00	
Pedestrian Fs / Fde				0.0	00	0.138	-	0.00	U	0.	.139	0.0	00	0	.091	0.00	U	0.08	9
	destrian Mcomer / Mcw				0.5			0		-									
Bicycle <i>c</i> _b / <i>d</i> _b				372		31.45		357.0			2.05	1097			9.67	1118.		9.23	
Bicycle Fw / Fv				-3.	64	0.48		-3.6	4	0	.66	-3.0	54 	(0.35	-3.64	1	0.68	3

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--- Messages ----

No errors or warnings exist.

--- Comments ----

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Generated: 7/15/2016 3:07:17 PM

HCS 2010 Signalized Intersection Input Data

				le elg	manz		0000		imput	Data					
General Inform	nation								Intersec	tion Inf	ormatio	on		4241	ba La
Agency		KLOA, Inc.							Duration,		0.25			44	
Analyst		NJB		Analys	is Date	7/13/2	016		Area Typ		Other		14		
Jurisdiction		Arlington Heights		Time F		PM			PHF	-	0.96			₩₽E	
Urban Street		Kensington Road			is Year				Analysis	Period	1> 7:0	00	4 1		4
Intersection		Kensington Road a	nd D	File Na			ngton ar	nd Dry	yden Exis					5 \$	
Project Descrip	tion	PM Existing Peak H		1	-		<u> </u>			5				 	14
		.													
Demand Inform	nation				EB			W	В		NB			SB	
Approach Move	ement			L	Т	R	L	Т	- R	L	Т	R	L	Т	R
Demand (v), v	eh/h			85	174	30	56	27	7 80	22	324	89	62	250	104
				I		<u> </u>	F 112								
Signal Informa	r			-	6	215					£ I		r † 1		
Cycle, s	95.0	Reference Phase	2		5	ľ	ំ 🚮	7			E	1		3	
Offset, s	0	Reference Point	Begin	Green		0.6	50.3	4.5	5 1.2	17.3	3				<u> </u>
Uncoordinated	No	Simult. Gap E/W	On	Yellow		0.0	4.5	3.0		4.5		く ム			Y
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	1.5	0.0	0.0	1.5		5	6	7	8
							1								
Traffic Informa					EB			WE	1	<u> </u>	NB			SB	
Approach Move				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), ve		//-		85	174	30	56	277		22	324	89	62	250	104
Initial Queue (C				0 1900	0 1900	0	0	0	0	0	0	0	0	0	0
	ase Saturation Flow Rate (so), veh/h arking (Nm), man/h					1900	1900	2000		1900	1900	1900	1900	1900	1900
	arking (<i>Nm</i>), man/h eavy Vehicles (<i>P</i> HV), %						0	Non		0	None		0	None 1	\vdash
Ped / Bike / RT		/0		0	3 0	0	0	0	0	0	0	0	0	0	
Buses (<i>N</i> _b), bus				0	0	0	0	0	0	0	0	0	0	0	0
				3	3	3	3	3	3	3	3	3	3	3	3
Arrival Type (A Upstream Filter				1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W)				12.0	12.0	1.00	12.0	12.0	_	12.0	12.0	1.00	12.0	12.0	1.00
Turn Bay Lengt				115	0		115	0	160	95	0		12.0	0	
Grade (<i>Pg</i>), %	11, IL			113	0		113	0	100	30	0		120	0	
Speed Limit, mi	i/b			30	-	30	30		30	30		30	20		20
Opeed Linit, m	/11			50	50	50	50	50	50	50	- 50	50	20	20	20
Phase Informa	tion			EBL		EBT	WBI		WBT	NBL	-	NBT	SBL	-	SBT
Maximum Gree	n (<i>G</i> max)) or Phase Split, s		9.0		30.0	9.0		30.0	12.0)	44.0	12.0)	44.0
Yellow Change	Interval	(Y), s		3.0		4.5	3.0		4.5	3.0		4.5	3.0		4.5
Red Clearance	Interval	(<i>Rc</i>), s		0.0		1.5	0.0		1.5	0.0		1.5	0.0		1.5
Minimum Greer	ר (<i>Gmin</i>)	, S		3		10	3		10	3		15	3		15
Start-Up Lost T	ime (<i>It</i>)	, S		2.0		2.0	2.0		2.0	2.0		2.0	2.0		2.0
Extension of Eff	fective C	Green (<i>e</i>), s		2.0		2.0	2.0		2.0	2.0		2.0	2.0		2.0
Passage (PT), s	S			3.0		4.0	3.0		4.0	3.0		7.0	3.0		7.0
Recall Mode				Off		Off	Off		Off	Off		Min	Off		Min
Dual Entry	-					Yes	Yes		Yes	Yes		Yes	Yes		Yes
Walk (<i>Walk</i>), s				0.0		7.0	0.0		7.0	0.0		7.0	0.0		7.0
Pedestrian Clea	edestrian Clearance Time (<i>PC</i>), s					14.0	0.0		15.0	0.0		14.0	0.0		15.0
Multimodal Inf	lultimodal Information							WB			NB			SB	
· · · ·		Walk / Corner Radi	us	0	No	25	0	No	25	0	No	25	0	No	25
-		Vidth / Length, ft		9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Is				0	0	No	0	0	No	0	0	No	0	0	No
		ane / Shoulder, ft		12	5.0	2.0	12	5.0		12	5.0	2.0	12	5.0	2.0
Pedestrian Sigr	nal / Oco	cupied Parking		No		0.50	No		0.50	No		0.50	No		0.50

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HCS 2010 Signalized Intersection Results Summary

				. 9											
General Inform	nation								Interse	ction In	formatio	on		4441	<u>له</u>
Agency		KLOA, Inc.							Duratio		0.25			46	
Analyst		NJB		Analys	sis Date	e 7/13/2	2016		Area Ty		Other		ゴ 本		₹.
Jurisdiction		Arlington Heights		Time F		PM	.010		PHF	pe	0.96		×	w‡e	~ _ ↓ ∳
Urban Street		Kensington Road				· 2016				s Period		າດ			+ ₹
Intersection		Kensington Road a	nd D	File Na			naton a	od Dr		isting PN		50			5
Project Descrip	tion	PM Existing Peak H			ame	Rensi	ington a				1.xu5		_	<u>।</u> संस्कृत	
Project Descrip	lion	FIN EXISTING FEAK P	TOUI												
Demand Inform	nation				EB			W	B		NB			SB	
Approach Move	ement			L	Т	R	L	٦	- R	L	Т	R	L	Т	R
Demand (v), v	eh/h			85	174	30	56	27	7 80) 22	324	89	62	250	104
															i and a state of the state of t
Signal Informa	tion	v	1		5	215	<u></u>								_
Cycle, s	95.0	Reference Phase	2		5		* 1	<u>, </u>	- É		ê.		\mathbf{Y}	∠	÷
Offset, s	0	Reference Point	Begin	Green	3.0	0.6	50.3	4.5	5 1.2	2 1 7.	3			3	K
Uncoordinated	No	Simult. Gap E/W	On	Yellow		0.0	4.5	3.0) 4.5		$\langle \langle \langle \rangle \rangle$			*
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	1.5	0.0) 0.0) 1.5		5	6	7	8
Timer Results				EBI	-	EBT	WB	L	WBT	NE	BL	NBT	SBI	-	SBT
Assigned Phase	e			7		4	3		8	5		2	1		6
Case Number				1.1		4.0	1.1		3.0	1.1		4.0	1.1		4.0
Phase Duration	, S			8.7		24.6	7.5		23.3	6.0)	56.3	6.6		57.0
-	nange Period, (Y+R c), s			3.0		6.0	3.0		6.0	3.)	6.0	3.0		6.0
	ax Allow Headway (MAH), s			4.1 5.7		5.1	4.1		5.1	4.	1	0.0	4.2		0.0
Queue Clearan	ueue Clearance Time (g s), s					12.2	4.4		15.1	2.	5		3.5		
Green Extensio	n Time	(g _e), s		0.0		2.7	0.0		2.2	0.0)	0.0	0.1		0.0
Phase Call Pro	bability			1.00)	1.00	1.00)	1.00	1.0	0		1.00)	
Max Out Proba	bility			1.00)	0.14	1.00)	0.38	0.0	0		0.00)	
Movement Gro	un Res	sults			EB			WE	2		NB			SB	
Approach Move	•			L	T	R	L	Т	R	L	Т	R	L	T	R
Assigned Move				7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow I) veh/h		89	213	<u> </u>	58	289		23	430	12	65	369	10
		ow Rate (s), veh/h/	In	1810	1797		1810	200	_	- · ·	1829		1810	1787	
Queue Service		. ,		3.7	10.2		2.4	13.		0.5	13.7		1.5	11.5	
Cycle Queue C		÷ :		3.7	10.2		2.4	13.		0.5	13.7		1.5	11.5	
Green Ratio (g		e fille (<i>gc</i>), s		0.25	0.20		0.23	0.18			0.53		0.57	0.54	
Capacity (c), v	,			234	352		240	365		539	969		520	959	
Volume-to-Cap		tio (X)		0.379	0.604		0.243	0.79	_				0.124	0.385	
· · ·	,	/In (95 th percentile		74.2	204.8		48.7	290.			242.1		27.5	211.9	
		eh/In (95 th percent		3.0	8.2		1.9	11.3		0.4	9.7		1.1	8.5	
		RQ) (95 th percent		0.65	0.00		0.42	0.00	_		0.00		0.23	0.00	
		,, ,		29.5	34.9		29.8	37.	_		13.7		10.3	12.9	
	niform Delay (d_1), s/veh				2.4		0.5	6.9	_	0.0	1.5		0.1	12.9	
	cremental Delay (<i>d</i> ₂), s/veh itial Queue Delay (<i>d</i> ₃), s/veh				0.0		0.0	0.0	-	0.0	0.0		0.1	0.0	
Control Delay (•		0.0 30.5	37.2		30.3	44.0	_	_	15.2		10.4	14.0	
Level of Service				30.5 C	D		C 30.3	44.0 D	C	B	B		B	B	
Approach Delay				35.3		D	40.2	1	D	14.	_	B	13.5		B
Intersection De					,		40.2 5.1	-	U	14.	5		C	,	0
	ay, 5/ve	<u> </u>				23							<u> </u>		
Multimodal Re	Itimodal Results							WE	3		NB			SB	
Pedestrian LOS		/ LOS		2.3	EB	В	2.3		B	2.4	1	В	2.3		В
Bicycle LOS Sc				1.0		A	1.2		A	1.3		A	1.2		A
		-													

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HCS 2010 Signalized Intersection Intermediate Values

		HC3 20	10	Sig	nanz	eu m	lei	Seci		me	enne	uiale	van	ues				
General Inform	nation										Inter	sectior	Info	rmat	ion		¹ 석 ¹ 석	
	lation	KLOA, Inc.										tion, h	milli	0.25			4	
Agency		NJB			Analys	ia Data	7/	/13/201	6					O.20				K.
Analyst					Time F	sis Date		M	0		Area PHF	туре		0.96				
Jurisdiction		Arlington Heights						016				ia Dar	i a al	<u> </u>				· · ·
Urban Street		Kensington Road				sis Year						/sis Per		1>7	.00			r and a second
Intersection	()	Kensington Road a			File Na	ame	K	ensingi	ton ar		ryaen E	Existing	PIVI.)	xus		_	<u>)</u>	
Project Descrip	tion	PM Existing Peak H	lour															
Demand Inform	nation					EB				V	VB			N	3		S	B
Approach Move	ement				L	Т	Τ	R	L		T	R	L	Т	R	L		Г R
Demand (v), v	eh/h				85	174	T	30	56	2	77	80	22	32	4 89	62	25	50 104
Signal Informa	tion					6	2	ЛL I	44	Ι,	,	7	7 6		L		_	
Cycle, s	95.0	Reference Phase	2	2		8	1	8	5.1	<u>,</u> [° 7	€				Y		
Offset, s	0	Reference Point	Be	gin	Green	3.0	0).6	50.3	4.	5	1.2	17.3					S M R
Uncoordinated	No	Simult. Gap E/W	C		Yellow				4.5	3.		0.0	4.5		<u>\</u>		_	
Force Mode	Fixed	Simult. Gap N/S	С)n	Red	0.0	0).0	1.5	0.	.0 (0.0	1.5		5	6		7 8
					EE	ii.			W	1	_		ii.	NB ━	_		SE	1
Saturation Flo		-	4	L	T	R	_	L	T		R	L		T	R	L	T	R
Lane Width Adj		. ,		1.00			_	1.000	1.00		1.000	1.000		000	1.000	1.000	1.00	
Heavy Vehicle	-		-	1.00	_			1.000	1.00		1.000	1.000	_	000	1.000	1.000	0.99	
	pproach Grade Adjustment Factor (f_g)						_	1.000			1.000	1.000		000	1.000	1.000	1.00	
	arking Activity Adjustment Factor (f_p)				0 1.00			1.000			1.000	1.000		000	1.000	1.000	1.00	_
-	us Blockage Adjustment Factor (fbb)				0 1.00		_	1.000			1.000	1.000		000	1.000	1.000	1.00	
Area Type Adju			4	1.00			_	1.000	1.00		1.000	1.000		000	1.000	1.000	1.00	
	-	ment Factor (fLU)	4	1.00)0	1.000	1.00	-	1.000	1.000		000	1.000	1.000	1.00	
Left-Turn Adjus			4	0.95				0.952				0.952		000		0.952	0.00	
Right-Turn Adju		. ,	_		0.97	74	_		0.00	00				963			0.95	;0
		djustment Factor (fLp		1.00	0		_	1.000	<u> </u>	\rightarrow		1.000)			1.000		
		djustment Factor (fR	ьb)			1.00)0			-	1.000		+		1.000			1.000
		Flow Rate (s), veh/h		1810			_	1810	200			1810		435		1810	126	
		Arriving on Green (F)	0.06		_	0	0.05	0.1		0.18	0.03		.53	0.53	0.04	0.5	
Incremental De	lay Fac	tor (<i>k</i>)		0.11	0.1	5		0.11	0.2	20	0.15	0.11	0.	.50		0.11	0.5	0
Signal Timing	/ Move	ment Groups	T	E	BL	EBT/F	२	WB	31	W	BT/R	N	31	N	IBT/R	SBI		SBT/R
Lost Time (t _L)					.0	6.0	-	3.0			6.0	3.			6.0	3.0		6.0
Green Ratio (g	(C)				25	0.20		0.2			0.18	0.5			0.53	0.57		0.54
	,	low Rate (sp), veh/h/	In		08	0		118			0	10			0	973	_	0
		v Rate (ssh), veh/h/ln	_					_										
Permitted Effect				17	'.6	0.0		17.	3	(0.0	50	.3		0.0	50.3	3	0.0
Permitted Servi					.2	0.0		6.3			0.0	37			0.0	36.6		0.0
		ce Time (g _{ps}), s			.2			0.6				0.				1.0		
	me to First Blockage (g_i), s				.0	0.0		0.0		(0.0	0.			0.0	0.0	_	0.0
		efore Blockage (grs),	s															
		tion Flow (<i>s</i> _R), veh/h	_								0							
		ve Green Time (g _R),	_	-							0.0							
Multimodal		- (0 %			E	3			W				1	NВ			SE	3
Pedestrian Fw/	Fv			1.5	57	0.00		1.55	1		0.00	1.7		1	0.00	1.55		0.00
Pedestrian <i>F</i> s/					000	0.137		0.00			.139	0.0			0.094	0.00		0.093
	destrian Mcomer / Mcw			5.0				0.00	-	0.		0.0				0.00	-	
Bicycle <i>cb</i> / <i>db</i>					.23	30.73		365.	07	31	1.74	1059	9,66	1	0.50	1072.	92	10.21
Bicycle <i>F</i> _w / <i>F</i> _v					64	0.50		-3.6			0.71	-3.			0.75	-3.6		0.72
,	ycle F _w / F _v					0.00		0.0	•		•••	0.	• •	1		0.0	·	

--- Messages ----

No errors or warnings exist.

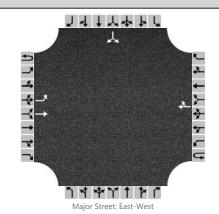
--- Comments ----

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Generated: 7/15/2016 3:09:04 PM

	HCS 2010 Two-Way Stop C	ontrol Summary Re	eport
General Information		Site Information	
Analyst	NJB	Intersection	Kensington and Market
Agency/Co.	KLOA, Inc.	Jurisdiction	Arlington Heights
Date Performed	7/13/2016	East/West Street	Kensington Road
Analysis Year	2016	North/South Street	Arlington Market Access
Time Analyzed	АМ	Peak Hour Factor	0.86
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	AM Existing Peak Hour		



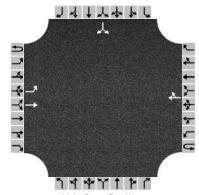
Vehicle Volumes and Adjustments

· · · · · · · · · · · · · · · · · · ·																
Approach		Eastb	ound			West	oound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	0	0	0	1	0		0	0	0		0	0	0
Configuration		L	Т					TR							LR	
Volume (veh/h)		4	235				288	9						6		2
Percent Heavy Vehicles		0												0		0
Proportion Time Blocked																
Right Turn Channelized		Ν	lo			Ν	lo			Ν	lo			Ν	10	
Median Type								Left	Only							
Median Storage								:	1							
Delay, Queue Length, and	l Level	of Sei	vice													
Flow Rate (veh/h)		5													9	
Capacity		1225													574	
v/c Ratio		0.00													0.02	
95% Queue Length		0.0													0.0	
Control Delay (s/veh)		7.9													11.4	
Level of Service (LOS)		A													В	
Approach Delay (s/veh)		0	.1	-		-		-		-	-	-		1	1.4	
Approach LOS															В	

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HCS 2010[™] TWSC Version 6.80 Kensington and Arlington Market Existing AM.xtw Generated: 7/13/2016 1:19:52 PM

	HCS 2010 Two-Way Stop C	ontrol Summary Re	eport
General Information		Site Information	
Analyst	NJB	Intersection	Kensington and Market
Agency/Co.	KLOA, Inc.	Jurisdiction	Arlington Heights
Date Performed	7/13/2016	East/West Street	Kensington Road
Analysis Year	2016	North/South Street	Arlington Market Access
Time Analyzed	PM	Peak Hour Factor	0.94
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	PM Existing Peak Hour		



Major Street: East-West

Vehicle Volumes and Adjustments

					-											
Approach		Eastb	ound			West	oound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	0	0	0	1	0		0	0	0		0	0	0
Configuration		L	Т					TR							LR	
Volume (veh/h)		11	274				382	21						15		3
Percent Heavy Vehicles		0												0		0
Proportion Time Blocked																
Right Turn Channelized		N	lo			N	lo			N	lo			Ν	lo	
Median Type								Left	Only							
Median Storage								:	1							
Delay, Queue Length, and	Level	of Ser	vice													
Flow Rate (veh/h)		12													19	
Capacity		1142													512	
v/c Ratio		0.01													0.04	
95% Queue Length		0.0													0.1	
Control Delay (s/veh)		8.2													12.3	
Level of Service (LOS)		А													В	
Approach Delay (s/veh)		0	.3											12	2.3	
Approach LOS															3	

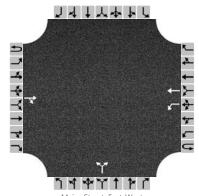
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HCS 2010[™] TWSC Version 6.80

Generated: 7/13/2016 1:20:15 PM

Kensington and Arlington Market Existing PM.xtw

	HCS 2010 Two-Way Stop C	ontrol Summary Re	eport
General Information		Site Information	
Analyst	NJB	Intersection	Kensington and Mariano's
Agency/Co.	KLOA, Inc.	Jurisdiction	Arlington Heights
Date Performed	7/13/2016	East/West Street	Kensington Road
Analysis Year	2016	North/South Street	Mariano's Access Drive
Time Analyzed	АМ	Peak Hour Factor	0.86
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	AM Existing Peak Hour		



Major Street: East-West

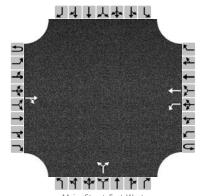
Vehicle Volumes and Adjustments

Approach		Eastb	ound			West	oound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		0	0	0		0	0	0
Configuration				TR		L	Т				LR					
Volume (veh/h)			206	27		31	259			9		33				
Percent Heavy Vehicles						0				0		0				
Proportion Time Blocked																
Right Turn Channelized		Ν	lo			Ν	lo			N	lo			Ν	10	
Median Type								Left	Only							
Median Storage								:	1							
Delay, Queue Length, and	l Level	of Sei	vice													
Flow Rate (veh/h)						36					48					
Capacity						1304					712					
v/c Ratio						0.03					0.07					
95% Queue Length						0.1					0.2					
Control Delay (s/veh)						7.8					10.4					
						A					В					
Level of Service (LOS)																
	-					0	.8			10						

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HCS 2010[™] TWSC Version 6.80 Kensington and Marianos Existing AM.xtw Generated: 7/13/2016 1:18:36 PM

	HCS 2010 Two-Way Stop C	ontrol Summary Re	eport
General Information		Site Information	
Analyst	NJB	Intersection	Kensington and Mariano's
Agency/Co.	KLOA, Inc.	Jurisdiction	Arlington Heights
Date Performed	7/13/2016	East/West Street	Kensington Road
Analysis Year	2016	North/South Street	Mariano's Access Drive
Time Analyzed	PM	Peak Hour Factor	0.94
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	PM Existing Peak Hour		



Major Street: East-West

Vehicle Volumes and Adjustments

Approach		Eastb	ound			West	oound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		0	0	0		0	0	0
Configuration				TR		L	Т				LR					
Volume (veh/h)			162	59		102	283			29		123				
Percent Heavy Vehicles						0				0		1				
Proportion Time Blocked																
Right Turn Channelized		Ν	lo			Ν	lo			Ν	lo			Ν	lo	
Median Type								Left	Only							
Median Storage								-	1							
Delay, Queue Length, and	Level	of Ser	vice													
Flow Rate (veh/h)						109					162					
Capacity						1344					705					
v/c Ratio						0.08					0.23					
95% Queue Length						0.3					0.9					
Control Delay (s/veh)						7.9					11.6					
Level of Service (LOS)						А					В					
Approach Delay (s/veh)						2	.1			11	1.6					
Approach LOS										I	В					

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HCS 2010[™] TWSC Version 6.80 Kensington and Marianos Existing PM.xtw Generated: 7/13/2016 3:36:56 PM

HCS 2010 Signalized Intersection Input Data

				le elg	nanz	cu int			imput	Dulu					
General Inform	nation								Intersec	tion Inf	ormatio	on		474+	þ.
Agency		KLOA, Inc.							Duration		0.25			44	
Analyst		NJB		Analys	is Date	7/13/2	016		Area Typ		Other		- 1 - 4		₹.
Jurisdiction		Arlington Heights		Time F		AM			PHF	-	0.82			w	 ↓ ↓
Urban Street		Kensington Road			is Year				Analysis	Period	1> 7:0	00			¥ ₹
Intersection		Kensington Road a	nd D	File Na			naton ai	nd Dr	yden Futu					<u>ን</u> ቱ	
Project Descrip	tion	AM Future Peak Ho		1	-		<u> </u>		,	-				 	* *
, ,															
Demand Inform	nation				EB			W	/B		NB			SB	
Approach Move	ement			L	Т	R	L		Г R	L	Т	R	L	Т	R
Demand (v), v	eh/h			42	199	32	23	22	23 95	38	116	34	65	208	74
				1	1 T	h	b 115	1			<u></u>				
Signal Informa				-	6	215	<u>11</u>	Ŀ			¥ .		r†a		
Cycle, s	95.0	Reference Phase	2		5	ſ	1 <u>5</u> 1	7	<u> </u>		6	1	2	3	
Offset, s	0	Reference Point	Begin	Green		0.7	50.6	3.2	2 1.1	18.1				_	<u>⊼</u>
Uncoordinated	No	Simult. Gap E/W	On	Yellow	-	0.0	4.5	3.0		4.5	_	\mathbf{Y}			V
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	1.5	0.0	0.0	1.5		5	6	1	8
Traffic Informa	tion				EB			WE	3		NB			SB	
Approach Move					T	R	L	T	R	L	T	R	L	T	R
Demand (v), ve				42	199	32	23	223		38	116	34	65	208	74
Initial Queue (C		'n		0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation				1900	1900	1900	1900	200		1900	1900	1900	1900	1900	1900
Parking (<i>Nm</i>), m				1000	None		1000	Non			None	1000		None	1000
Heavy Vehicles		%		7	5		0	6	4	17	4		2	3	
Ped / Bike / RT				0	0	0	0	0	0	0	0	0	0	0	0
Buses (Nb), bus				0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (A				3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filter				1.00	1.00	1.00	1.00	1.00	0 1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W)				12.0	12.0		12.0	12.0	0 12.0	12.0	12.0		12.0	12.0	
Turn Bay Lengt	h, ft			115	0		115	0	160	95	0		120	0	
Grade (<i>Pg</i>), %					0			0			0			0	
Speed Limit, mi	i/h			30	30	30	30	30	30	30	30	30	20	20	20
			_									_			
Phase Informa				EBL		EBT	WB		WBT	NBL		NBT	SBL		SBT
	. ,) or Phase Split, s		9.0		30.0	9.0		30.0	12.0		44.0	12.0		44.0
Yellow Change				3.0		4.5	3.0		4.5	3.0		4.5	3.0		4.5
Red Clearance				0.0		1.5	0.0		1.5	0.0		1.5	0.0		1.5
Minimum Greer	. ,			3		10	3		10	3		15	3		15
Start-Up Lost T				2.0		2.0	2.0		2.0	2.0		2.0	2.0		2.0
Extension of Eff Passage (PT), s		Sieen (e), S		2.0		2.0	2.0		2.0	2.0		2.0	2.0		2.0
Recall Mode	5			3.0 Off		4.0 Off	3.0 Off		4.0 Off	3.0 Off		7.0 Min	3.0 Off		7.0 Min
Dual Entry				Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes
Walk (<i>Walk</i>), s				0.0		7.0	0.0		7.0	0.0		7.0	0.0		7.0
Pedestrian Clea	aranco T	Time (PC) s		0.0		7.0 14.0	0.0		15.0	0.0		7.0 14.0	0.0		15.0
		ине (ГС), S		0.0		14.0	0.0		15.0	0.0		14.0	0.0		10.0
Multimodal Inf	ormatio	on			EB			WE	3		NB			SB	
85th % Speed /	Rest in	Walk / Corner Radi	ius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Cros	swalk V	Vidth / Length, ft		9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Is	sland / C	Curb		0	0	No	0	0	No	0	0	No	0	0	No
Width Outside /	Bike La	ane / Shoulder, ft		12	5.0	2.0	12	5.0) 2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Sigr	nal / Oco	cupied Parking		No		0.50	No		0.50	No		0.50	No		0.50

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HCS 2010 Signalized Intersection Results Summary

		1100 2		ignan	Loa		ootioi	1110	ou		amm	ur y				
General Inform	nation								Int	tersect	ion Inf	ormatic	on		4741	be La
Agency		KLOA, Inc.								uration,	-	0.25			44	
Analyst		NJB		Analys	sis Date	e 7/13/2	2016			ea Typ		Other		- <u>-</u> -		۲. 4
Jurisdiction		Arlington Heights		Time F		AM			PH		0	0.82		- <u>→</u> _>	w‡e	~ _⊱ ↓ ∲
Urban Street		Kensington Road		Analys						nalysis	Period	1> 7:0	10	4 17		
Intersection		Kensington Road a	nd D	File Na			ngton a	nd Dr	1	-			50			~
Project Descrip	tion	AM Future Peak Ho		File ING	ame	Rensi	ngion a		yue	nrutu		us		_	<u>ो</u> [च 1 क ल	
Project Descrip	lion	AM FULLIE FEAK H	Jui													
Demand Inform	nation				EB			V	/B			NB			SB	
Approach Move	ement			L	Т	R	L	-	Г	R	L	Т	R	L	Т	R
Demand (v), v	/eh/h			42	199	32	23	2	23	95	38	116	34	65	208	74
Signal Informa	Ir	1	۱ <u>ــــــــــــــــــــــــــــــــــــ</u>	-	5	215	1 1.	. 2			3			-+-		_
Cycle, s	95.0	Reference Phase	2	-	5	P	- ¹ 51	2	Ľ	T.		E.	1	\mathbf{Y}_{2}	⊻	€ ₄
Offset, s	0	Reference Point	Begin	Green	3.3	0.7	50.6	3.	2	1.1	18.1					ĸ
Uncoordinated	No	Simult. Gap E/W	On	Yellow	3.0	0.0	4.5	3.		0.0	4.5		$\langle \mathbf{A} \rangle$			7
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	1.5	0.	0	0.0	1.5		5	6	7	8
Times Desition				EDI		FDT			14	VDT	NIE		NIDT	0.51		ODT
Timer Results				EBL	-	EBT	WB	L		VBT	NBI	-	NBT	SBI	-	SBT
Assigned Phas	e			7		4	3			8	5		2	1		6
Case Number				1.1		4.0	1.1			3.0	1.1		4.0	1.1	_	4.0
Phase Duration				7.3		25.2 6.0	6.2 3.0			4.1	6.3		56.6	7.0		57.3
Change Period Max Allow Hea				3.0 4.1	_	5.1	4.1			6.0 5.1	3.0 4.1		6.0	3.0 4.2		6.0 0.0
Queue Clearan				4.1		16.4	3.2			5.0	3.3		0.0	3.9		0.0
Green Extensio				0.0		2.8	0.0			2.9	0.1		0.0	0.2		0.0
Phase Call Pro		(90), 3		1.00		1.00	1.00			.00	1.00		0.0	1.00		0.0
Max Out Proba				1.00		0.33	1.00			.31	0.00			0.00		
	<i></i>					0.00					0.00			0.00		
Movement Gro	oup Res	sults			EB			W	3			NB			SB	
Approach Move	ement			L	Т	R	L	Т		R	L	Т	R	L	Т	R
Assigned Move	ment			7	4	14	3	8		18	5	2	12	1	6	16
Adjusted Flow	Rate (v), veh/h		51	282		28	272	2	116	46	183		79	344	
Adjusted Satura	ation Flo	ow Rate (s), veh/h/	In	1691	1766		1810	188	7	1548	1547	1755		1774	1761	
Queue Service	Time (g	g s), S		2.3	14.4		1.2	13.	0	6.2	1.3	5.2		1.9	10.6	
Cycle Queue C	learanc	e Time (<i>g c</i>), s		2.3	14.4		1.2	13.	0	6.2	1.3	5.2		1.9	10.6	
Green Ratio (g	ŋ/C)			0.24	0.20		0.22	0.1	9	0.19	0.57	0.53		0.58	0.54	
Capacity (c), v				209	357		169	359	-	295	497	935		723	951	
Volume-to-Cap	· ·	. ,		0.245			0.166	0.75		0.393	0.093	0.196		0.110	0.362	
		In (95 th percentile)		44.9	276.3		24.8	274	-	108.5	19.8	92.4		35.1	197	
		eh/In (95 th percent	,	1.7	11.1		0.9	10.	-	4.3	0.7	3.7		1.3	7.9	
		RQ) (95 th percen	tile)	0.39	0.00		0.20	0.0		0.70	0.22	0.00		0.28	0.00	
Uniform Delay				29.5	36.0		30.3	36.	-	33.6	9.9	11.6		9.1	12.5	
Incremental De	- · ·			0.6	7.0		0.5	5.2		1.2	0.1	0.5		0.1	1.1	
Initial Queue D		•		0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Control Delay (30.1 C	43.0		30.8	41.	0	34.9 C	10.0	12.1		9.2	13.6	
Level of Service						D	C 20 (B	B	P	A	B	B
Approach Dela	-			41.0	,		39.0	J		D	11.6		В	12.7 C		D
Intersection De	iay, S/VE	ar / LU3				2	7.1									
Multimodal Re	sults				EB			W	3			NB			SB	
Pedestrian LOS		/ LOS		2.3		В	2.3			В	2.4	-	В	2.2		В
Bicycle LOS So				1.0	_	A	1.2			A	0.9		A	1.2		A
										••	0.0		••			

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HCS 2010[™] Streets Version 6.80

HCS 2010 Signalized Intersection Intermediate Values

		HCS 20	10	Sig	nan	zeu	inte	ersect	ION	mu	enned	ulate	valu	62				
General Inform	otion										Inter	section	lafor	matia			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	I b L
	ation).25	on	- 1	4	
Agency		KLOA, Inc.			A		2-1-	7/40/00	10		_	tion, h						K.
Analyst		NJB						7/13/20 ⁻	10		Area	туре		Other				
Jurisdiction		Arlington Heights			Time			AM			PHF).82	20		1	
Urban Street		Kensington Road			Analy			2016				sis Peri		> 7:0	00			r i
Intersection		Kensington Road a		ו	File N	lame	e	Kensing	ton a	nd D	ryden F	uture A	M.xus				<u>)</u>	
Project Descrip	tion	AM Future Peak Ho	bur														1414	
Demand Inform	nation					E	EB			V	NB			NB			SE	3
Approach Move	ement				L		Т	R	L		Т	R	L	Т	R	L	Т	R
Demand (v) , v					42	1	199	32	23	2	223	95 3	38	116	34	65	20	
Signal Informa	tion						5	215	44		-	3	_ <u></u>	l			_	
Cycle, s	95.0	Reference Phase	2	2			5		5.1		″ ∽⊨	€ ⊨				Y		
Offset, s	0	Reference Point	Be	gin	Gree	n 3.	3	0.7	50.6	3		in 1.1	8.1					× × ×
Uncoordinated	No	Simult. Gap E/W	C		Yello			0.0	4.5				1.5		< 🖌		_	
Force Mode	Fixed	Simult. Gap N/S	C)n	Red	0.	0	0.0	1.5	0	.0 ().0 1	.5		5	6		7 8
												11				1		
					E	1			ii.	/B			NE	1			SB	
Saturation Flo		-		L		Г	R	L	1		R	L	Т		R	L	T	R
Lane Width Adj			_	1.00			1.000				1.000	1.000	1.00		1.000	1.000	1.00	
-	-			0.93	_		1.000		_		0.962	0.855	0.96		1.000	0.980	0.97	
	icle Adjustment Factor (<i>f</i> _{HV}) Grade Adjustment Factor (<i>f</i> _g)		4	1.00			1.000	_			1.000	1.000	1.00		1.000	1.000	1.00	
Parking Activity	-		4	1.00		_	1.000			_	1.000	1.000	1.00		1.000	1.000	1.00	_
Bus Blockage A	-		4	1.00			1.000				1.000	1.000	1.00		1.000	1.000	1.00	_
Area Type Adju			4	1.00			1.000				1.000	1.000	1.00		1.000	1.000	1.00	
	-	nent Factor (fLU)	4	1.00			1.000		_		1.000	1.000	1.00		1.000	1.000	1.00	
Left-Turn Adjus			4	0.95				0.952		-		0.952	0.00			0.952	0.00	
Right-Turn Adju		· · ·	4		_	976			0.0	00			0.96	51			0.95	5
		djustment Factor (fL	_	1.00	0			1.000				1.000				1.000		
		djustment Factor (f _{RI}	ob)				1.000	_	<u> </u>	_	1.000				1.000			1.000
		Flow Rate (s), veh/h		169	_			1810	_			1547	135			1774	1299	
		Arriving on Green (F)	0.05		20	0.20		0.*		0.19	0.04	0.5		0.53	0.04	0.54	
Incremental De	lay Faci	tor (<i>k</i>)		0.11	0.:	20		0.11	0.1	18	0.15	0.11	0.5	0		0.11	0.50	
Signal Timing	/ Move	nent Groups		F	BL	FF	BT/R	WE	31	W	/BT/R	NB		NF	BT/R	SBI		SBT/R
Lost Time (t _L)					.0		6.0	3.			6.0	3.0			5.0	3.0		6.0
Green Ratio (g/	(C)		+		24		0.20	0.2			0.0 0.19	0.5	_		.53	0.58		0.54
		ow Rate (sp), veh/h/	'In)51		0	111			0	900			0	1196		0
		v Rate (<i>ssh</i>), veh/h/ln	_				-		-		-		+		-			-
Permitted Effect				18	3.2	(0.0	18	.1		0.0	50.	6	0	0.0	50.6	;	0.0
Permitted Servi					.1		0.0	2.			0.0	38.			0.0	45.4		0.0
Permitted Queu					.7		-	0.4				0.6			-	0.4	_	
Time to First Bl		<u>.</u>			.0	(0.0	0.			0.0	0.0		0	0.0	0.0		0.0
	~	efore Blockage (<i>g</i> _{fs}),	s		-										-			
		tion Flow (<i>s</i> _R), veh/h	_								0							
		/e Green Time (<i>g</i> _R),	_								0.0							
Multimodal		- (0.77			F	B		1	V	٧B			N	В			SB	
Pedestrian Fw/	Fv			1.5	557	1	0.00	1.5			0.00	1.71	1		.00	1.55		0.00
Pedestrian Fs /					000		.137	0.0			.138	0.00			094	0.00	_	0.093
Pedestrian Mco		/																
Bicycle c_b / d_b				404	1.25	30	0.24	380	.90	3	1.13	1065	.03	10	.38	1079.	90	10.05
Bicycle <i>F</i> _w / <i>F</i> _v					.64).55	-3.6			0.69	-3.6			.38	-3.64		0.70
,												0.0				0.0		

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--- Messages ----

No errors or warnings exist.

--- Comments ----

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HCS 2010[™] Streets Version 6.80

Generated: 7/15/2016 3:15:52 PM

HCS 2010 Signalized Intersection Input Data

				lo olg	manz		01300		imput	Data					
General Inform	nation								Intersed	tion Inf	ormatio	on		までゆけ	Ja La
Agency		KLOA, Inc.							Duration		0.25			44	
Analyst		NJB		Analys	sis Date	7/13/2	016		Area Typ	, 	Other				₹.
Jurisdiction		Arlington Heights		Time F		PM			PHF		0.96			w‡e	 <!--</td-->
Urban Street		Kensington Road			sis Year	_			Analysis	Period	1> 7:0	00			+ *
Intersection		Kensington Road a	nd D	File Na			noton a	nd Dr	yden Futi					5.1	
Project Descrip	tion	PM Future Peak Ho				1.10.101	gionia		jaen at					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	* *
Demand Inform	nation				EB			N	/B		NB			SB	
Approach Move				L	Т	R	L		r R	L	Т	R	L	Т	R
Demand (v), v	reh/h			94	190	47	56	29	90 80	38	324	89	62	250	112
				I	1 1	6 111	5.115				<u></u>				
Signal Informa	r	Reference Phase	2	-	1 2	215	<u>11</u>				¦ ∣		sta		~
Cycle, s Offset, s	95.0 0	Reference Point	∠ Begin		5			7				1	2	3	
Uncoordinated	No	Simult. Gap E/W	On	Green		0.7	49.3	4.4	4 1.6	18.0)				-
Force Mode	Fixed	Simult. Gap N/S	On	Yellow Red	3.0	0.0	4.5	3.		4.5	_	` 」⁵	6		¥ 8
	T INCU		On	neu	0.0	0.0	1.5	0.		1.5					
Traffic Informa	tion				EB			W	3		NB			SB	
Approach Move	ement			L	Т	R	L	Т	R	L	Т	R	L	Т	R
Demand (v), ve	h/h			94	190	47	56	290	0 80	38	324	89	62	250	112
Initial Queue (C	Qb), veh/	'n		0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation	n Flow F	Rate (s _o), veh/h		1900	1900	1900	1900	200	0 1900	1900	1900	1900	1900	1900	1900
Parking (Nm), m	nan/h				None			Nor	e		None			None	
Heavy Vehicles	(<i>Рн</i> v), 9	%		0	3		0	0	0	0	0		0	1	
Ped / Bike / RT	OR, /h			0	0	0	0	0	0	0	0	0	0	0	0
Buses (Nb), bus	ses/h			0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (A	Т)			3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filter	ring (<i>I</i>)			1.00	1.00	1.00	1.00	1.0		1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W				12.0	12.0		12.0	12.		12.0	12.0		12.0	12.0	
Turn Bay Lengt	h, ft			115	0		115	0	160	95	0		120	0	
Grade (<i>Pg</i>), %					0			0	_		0			0	
Speed Limit, mi	i/h			30	30	30	30	30	30	30	30	30	20	20	20
Phase Informa	tion			EBL		EBT	WBI		WBT	NBL		NBT	SBL		SBT
) or Phase Split, s		9.0		30.0	9.0		30.0	12.0		44.0	12.0		44.0
Yellow Change	· · ·			3.0		4.5	3.0		4.5	3.0		4.5	3.0		4.5
Red Clearance				0.0		1.5	0.0	_	1.5	0.0		1.5	0.0		1.5
Minimum Greer		· · ·		3		10	3		10	3		15	3		15
Start-Up Lost T	(/			2.0		2.0	2.0		2.0	2.0		2.0	2.0		2.0
Extension of Ef				2.0		2.0	2.0		2.0	2.0		2.0	2.0		2.0
Passage (PT),	s			3.0		4.0	3.0		4.0	3.0		7.0	3.0		7.0
Recall Mode				Off		Off	Off		Off	Off		Min	Off		Min
Dual Entry				Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes
Walk (<i>Walk</i>), s				0.0		7.0	0.0		7.0	0.0		7.0	0.0		7.0
Pedestrian Clea	arance 7	Time (<i>PC</i>), s		0.0		14.0	0.0		15.0	0.0		14.0	0.0		15.0
Multimodal Inf	ormatic				EB			WE	2		NB			SB	
		on 1 Walk / Corner Radi	115	0	No	25	0	Nc	1	0	NB	25	0	No	25
· · ·		Vidth / Length, ft	uo	9.0	12	0	9.0	12		9.0	12	0	9.0	12	0
Street Width / Is				0	0	No	0	0	No	0	0	No	0	0	No
		ane / Shoulder, ft		12	5.0	2.0	12	5.0		12	5.0	2.0	12	5.0	2.0
Pedestrian Sigr				No		0.50	No		0.50	No		0.50	No	<u> </u>	0.50

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HCS 2010 Signalized Intersection Results Summary

		1100 2		ignan	Loa	initer 3	Sotiol	1110	Jou		amm	ur y				
General Inform	nation								Int	tersect	tion Inf	ormatic	n		4741	b. [4]
Agency		KLOA, Inc.								uration,		0.25			44	
Analyst		NJB		Analys	sis Dat	e 7/13/2	2016			ea Typ		Other		- <u>-</u> -		۲. ۴
Jurisdiction		Arlington Heights		Time F		PM			PH		•	0.96			w‡e	•_ ↓ •
Urban Street		Kensington Road		Analys						nalysis	Period	1> 7:0	0			+ + -
Intersection		Kensington Road a	nd D	File Na			ngton a			-						E C
Project Descrip	tion	PM Future Peak Ho			ame		ngion a		yue	in r utu				_	4149	
T Toject Descrip		I WI UUIE I EAK III	Jui													
Demand Inform	nation				EB			V	VВ			NB			SB	
Approach Move	ement			L	Т	R	L	-	Т	R	L	Т	R	L	Т	R
Demand (v), v	/eh/h			94	190) 47	56	2	90	80	38	324	89	62	250	112
				1		- 111	- U.									
Signal Informa	Ir	1	r		1 2	- 245					.3	\subseteq		-+-		-
Cycle, s	95.0	Reference Phase	2		5	P	1 <u>5</u> 1		Ľ			e .	1		¥ _	€ ₄
Offset, s	0	Reference Point	Begin	Green	3.0	0.7	49.3	4.	4	1.6	18.0)				ĸ
Uncoordinated	No	Simult. Gap E/W	On	Yellow		0.0	4.5	3.		0.0	4.5		く 4			7
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	1.5	0.	0	0.0	1.5		5	6	7	8
T' D K				EDI		EDT								0.01	SBL	
Timer Results				EBI		EBT	WB			VBT	NBI		NBT			SBT
Assigned Phas	e			7	\rightarrow	4	3	\rightarrow		8	5		2	1		6
Case Number				1.1	_	4.0	1.1	_		3.0	1.1		4.0	1.1	_	4.0
Phase Duration		`		9.0		25.6	7.4			4.0	6.0		55.3	6.7		56.0
Change Period				3.0		6.0 5.1	3.0			6.0	3.0	_	6.0	3.0		6.0
Max Allow Hea Queue Clearan		·		4.1 6.0	-	14.1	4.1 4.4			5.1 5.7	4.1 3.0		0.0	4.2 3.6		0.0
Green Extensio				0.0		2.8	0.0			2.3	0.0		0.0	0.1		0.0
Phase Call Pro		(90), 3		1.00		1.00	1.00			.00	1.00		0.0	1.00		0.0
Max Out Proba				1.00		0.25	1.00			.50	0.00			0.00		
	omry					0.20	1100		0	.00	0.00			0.00	,	
Movement Gro	oup Res	sults			EB			W	В			NB			SB	
Approach Move	ement			L	Т	R	L	Т		R	L	Т	R	L	Т	R
Assigned Move	ement			7	4	14	3	8		18	5	2	12	1	6	16
Adjusted Flow	Rate (v	′), veh/h		98	247		58	30	2	83	40	430		65	377	
Adjusted Satura	ation Flo	ow Rate (s), veh/h/	In	1810	1781		1810	200	0	1610	1810	1829		1810	1782	
Queue Service	Time (g	g s), S		4.0	12.1		2.4	13.	7	4.2	1.0	14.0		1.6	12.1	
Cycle Queue C	learanc	e Time (<i>g c</i>), s		4.0	12.1		2.4	13.	7	4.2	1.0	14.0		1.6	12.1	
Green Ratio (g	ŋ∕C)			0.26	0.21		0.24	0.1	9	0.19	0.55	0.52		0.56	0.53	
Capacity (c), v	/eh/h			240	367		226	37	9	305	519	950		507	938	
Volume-to-Cap	· ·	. ,		0.409	0.673		0.258	0.79		0.273	0.076	0.453		0.127	0.402	
		/In (95 th percentile	-	80.9	233.9	9	48.4	30		75.6	16.6	247.8		28.4	221.9	
		eh/In (95 th percent	,	3.2	9.4		1.9	11.		3.0	0.7	9.9		1.1	8.9	
-		RQ) (95 th percen	tile)	0.70	0.00		0.42	0.0		0.47	0.18	0.00		0.24	0.00	
Uniform Delay				28.8	34.8		29.5	36.		32.9	10.8	14.3		10.7	13.5	
Incremental De				1.1	3.2		0.6	7.6		0.7	0.1	1.6		0.1	1.3	
Initial Queue D		•		0.0	0.0		0.0	0.0	-	0.0	0.0	0.0		0.0	0.0	
Control Delay (29.9	38.0		30.1	44.	-	33.6	10.8	15.9 B		10.9	14.8	
Level of Service				C	D		C	D		C	B	B	D	B	B	
Approach Dela	-			35.7		D	40.5			D	15.5		В	14.2		В
Intersection De	iay, s/ve	en / LOS				28	5.8							С		
Multimodal Re	sulte				EB			W	B			NB			SB	
Pedestrian LOS		/ LOS		2.3		В	2.3	1		В	2.4		В	2.3	1	В
Bicycle LOS So				1.1		A	1.2			A	1.3	_	A	1.2		A
							1.2			•	1.5			1.2		

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HCS 2010[™] Streets Version 6.80

HCS 2010 Signalized Intersection Intermediate Values

		HCS 20	10	Sig	nanz		nte	rsect	ION	Inte	erme	ulate	value	95		_		_	
General Inform	otion										Inter	section	Inform	n o ti c			م ل ال	bi () ()	
	ation													.25	n	- 1	4		
Agency		KLOA, Inc.			Analu	aia Da	4. 7	7/4 2/2004	10		_	tion, h							
Analyst		NJB						7/13/201	10		Area	туре		Other 0.96		- <u>-</u>		×.	
Jurisdiction		Arlington Heights			Time			PM			PHF				20			-	
Urban Street		Kensington Road	I F		Analysis Year 2016 Analysis Period 1> 7:00										_				
Intersection		Kensington Road a		ו	File Name Kensington and Dryden Future PM.xus												<u>}</u>	*	
Project Descrip	tion	PM Future Peak Ho	our													14.15			
Demand Inform	nation					EE	3			V	NB			NB			S	B	
Approach Move	ement				L	Т		R	L		Т	R	L	Т	R	L	1	r r	
Demand (v) , v					94	19	0	47	56	2	290	80 3	38	324	89	62	2!	50 112	
Signal Informa	tion					ļļ	9	Ш.	44		_	3	_ \				_	_	
Cycle, s	95.0	Reference Phase		2		15	8	1	Rt			€ ⊨				Y		. - €	
Offset, s	0	Reference Point	Be	gin	Greer	3.0		0.7	49.3	4		1.6 1	8.0		-			<u> </u>	
Uncoordinated	No	Simult. Gap E/W				/ 3.0			4.5				4.5		< 🖌	♠ _		2	
Force Mode	Fixed	Simult. Gap N/S On R		Red	0.0	(0.0	1.5	0			.5		5	6		7		
					E				W	1			NE	3			SE	1	
Saturation Flo		-		L	T		R	L	Т		R	L	Т		R	L	Т	R	
Lane Width Adjustment Factor (<i>f</i> _w)			_	1.00			.000	1.000			1.000	1.000	1.00		1.000	1.000	1.00		
Heavy Vehicle	-		_	1.00			.000	1.000			1.000	1.000	1.00		1.000	1.000	0.99		
	-	tment Factor (fg)	_	1.00			.000				1.000	1.000	1.00		1.000	1.000	1.00		
Parking Activity	-			1.00			.000			_	1.000 1.000	1.000	1.00		1.000	1.000	1.00	_	
Bus Blockage A	-			1.00			.000					1.000	1.00		1.000	1.000	1.00		
Area Type Adju				1.00			.000				1.000	1.000	1.00		1.000	1.000	1.00		
	-	nent Factor (fLU)		1.00			.000				1.000	1.000	1.00		1.000	1.000	1.00		
Left-Turn Adjus				0.95				0.952		-		0.952	0.00			0.952	0.00		
Right-Turn Adju					0.9	66			0.0	00			0.96	33			0.94	17	
		djustment Factor (fL		1.00	0			1.000				1.000				1.000			
-		djustment Factor (f _R	ob)				.000		<u> </u>		1.000				1.000			1.00	
		Flow Rate (s), veh/h		181(_			1810				1810	143			1810	123		
		Arriving on Green (F	')	0.06).21	0.05			0.19	0.03	0.5		0.52	0.04	0.5		
Incremental De	lay Fact	tor (<i>k</i>)		0.11	0.1	6		0.11	0.2	22	0.15	0.11	0.5	0		0.11	0.5	0	
Signal Timing		nent Groups	7	F	BL	EBT	T/R	WE	21	١٨.	/BT/R	NB	1	NE	BT/R	SBL		SBT/R	
Lost Time (t _L)			-		.0	6.0		3.0			6.0	3.0			5.0	3.0		6.0	
Green Ratio (g/	(C)		┥		.0 26	0.2		0.2			0.0 0.19	0.5				0.56		0.53	
		ow Rate (sp), veh/h/	In		94	0.2		115			0	102	_		0.52 0.56 0 973		_	0.00	
		v Rate (ssh), veh/h/ln	_	10	J 1	0			- 1		•	102	-		5	575		Ŭ	
Permitted Effect				18	3.6	0.0	0	18.	.0		0.0	49.3	3	0	0.0	49.3	3	0.0	
Permitted Servi					.3	0.0		5.4			0.0	35.			0.0	35.3		0.0	
Permitted Queu					.0	0.0	-	0.7				0.5				1.0	_	0.0	
Time to First Bl					.0	0.0	0	0.0			0.0	0.0		0	0.0	0.0		0.0	
	~		s	0		0.0	-	0.0	~		5.5	0.0				0.0		0.0	
Queue Service Time Before Blockage (g_{fs}), s Protected Right Saturation Flow (s_R), veh/h/ln									0										
Protected Right Effective Green Time (g_R) , s		-						0.0											
			E	B			١٨	/B			NR				5	3			
Pedestrian Fw/	Ev		-	1 5	557	0.0	0	1.5	1		0.00	N 1.710		NB 0.00		1.557		SB 0.00	
Pedestrian Fs/					000	0.1		0.00			0.138		_					0.095	
Pedestrian <i>M</i> col		,	-	0.0	,00	0.1	50	0.00		0	.100	0.000		0.096		0.000		0.095	
Bicycle <i>cb</i> / <i>db</i>	INER / IVICW	,		413	2.04	29.9	94	379.	03	2	1.20	1038	67	10	.97	1052.	51	10.66	
Bicycle F_w / F_v			-		.04	29.		-3.6			0.73	-3.6			.97	-3.64		0.73	
				-3.	J-1	0.0		-5.0	/ 7		5.10	-3.0	-	0.	10	-3.02	т	0.73	

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--- Messages ----

No errors or warnings exist.

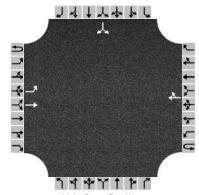
--- Comments ----

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HCS 2010[™] Streets Version 6.80

Generated: 7/15/2016 3:15:16 PM

	HCS 2010 Two-Way Stop C	ontrol Summary Re	eport
General Information		Site Information	
Analyst	NJB	Intersection	Kensington and Market
Agency/Co.	KLOA, Inc.	Jurisdiction	Arlington Heights
Date Performed	7/13/2016	East/West Street	Kensington Road
Analysis Year	2016	North/South Street	Arlington Market Access
Time Analyzed	АМ	Peak Hour Factor	0.86
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	AM Future Peak Hour		



Major Street: East-West

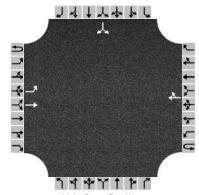
Vehicle Volumes and Adjustments

Approach		Eastbound Westbound Northbound Southbound												bound		
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	10	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	0	0	0	1	0		0	0	0		0	0	0
Configuration		L	Т					TR							LR	
Volume (veh/h)		20	235				288	47						38		15
Percent Heavy Vehicles		0												0		0
Proportion Time Blocked																
Right Turn Channelized		Ν	lo			Ν	lo			Ν	lo			Ν	10	
Median Type		Left Only														
Median Storage								:	1							
Delay, Queue Length, and	Level	of Ser	vice													
Flow Rate (veh/h)		23													61	
Capacity		1180													549	
v/c Ratio		0.02													0.11	
95% Queue Length		0.1													0.4	
Control Delay (s/veh)		8.1													12.4	
Level of Service (LOS)		А													В	
Approach Delay (s/veh)	0.6 12.4										2.4					
Approach LOS														l	В	

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HCS 2010[™] TWSC Version 6.80 Kensington and Arlington Market Future AM.xtw Generated: 7/13/2016 3:38:44 PM

	HCS 2010 Two-Way Stop C	ontrol Summary Re	eport						
General Information		Site Information							
Analyst	NJB	Intersection	Kensington and Market						
Agency/Co.	KLOA, Inc.	Jurisdiction	Arlington Heights						
Date Performed	7/13/2016	East/West Street	Kensington Road						
Analysis Year	2016	North/South Street	Arlington Market Access						
Time Analyzed	PM	Peak Hour Factor	0.94						
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25						
Project Description	PM Future Peak Hour								



Major Street: East-West

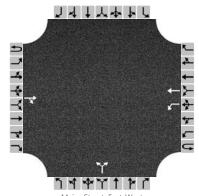
Vehicle Volumes and Adjustments

Approach		Eastbound Westbound Northbound Southbour												bound		
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	0	0	0	1	0		0	0	0		0	0	0
Configuration		L	Т					TR							LR	
Volume (veh/h)		27	274				382	58						57		20
Percent Heavy Vehicles		0												0		0
Proportion Time Blocked																
Right Turn Channelized		Ν	lo			Ν	lo			N	lo			Ν	lo	
Median Type		Left Only														
Median Storage								-	1							
Delay, Queue Length, and	Level	of Ser	vice													
Flow Rate (veh/h)		29													82	
Capacity		1104													496	
v/c Ratio		0.03													0.17	
95% Queue Length		0.1													0.6	
Control Delay (s/veh)		8.3													13.7	
Level of Service (LOS)		A													В	
Approach Delay (s/veh)	0.8 13.7															
Approach LOS														l	В	

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HCS 2010™ TWSC Version 6.80 Kensington and Arlington Market Future PM.xtw Generated: 7/13/2016 3:39:33 PM

	HCS 2010 Two-Way Stop C	ontrol Summary Re	eport						
General Information		Site Information							
Analyst	NJB	Intersection	Kensington and Mariano's						
Agency/Co.	KLOA, Inc.	Jurisdiction	Arlington Heights						
Date Performed	7/13/2016	East/West Street	Kensington Road						
Analysis Year	2016	North/South Street	Mariano's Access Drive						
Time Analyzed	AM	Peak Hour Factor	0.86						
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25						
Project Description	AM Future Peak Hour								



Major Street: East-West

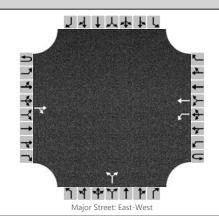
Vehicle Volumes and Adjustments

		Eastbound Westbound Southbound															
Approach		Eastb	ound			West	oound			North	bound			South	bound		
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R	
Priority	10	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Number of Lanes	0	0	1	0	0	1	1	0		0	0	0		0	0	0	
Configuration				TR		L	Т				LR						
Volume (veh/h)			222	27		31	272			9		33					
Percent Heavy Vehicles						0				0		0					
Proportion Time Blocked																	
Right Turn Channelized		Ν	lo			Ν	lo			N	lo			١	10		
Median Type								Left	Only								
Median Storage								:	1								
Delay, Queue Length, and	Level	of Ser	vice														
Flow Rate (veh/h)						36					48						
Capacity						1285					695						
v/c Ratio						0.03					0.07						
95% Queue Length						0.1					0.2						
Control Delay (s/veh)						7.9					10.6						
Level of Service (LOS)						А					В						
Approach Delay (s/veh)		0.8								10).6						
Approach LOS										I	3						

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HCS 2010[™] TWSC Version 6.80 Kensington and Marianos Future AM.xtw Generated: 7/13/2016 3:35:56 PM

	HCS 2010 Two-Way Stop C	ontrol Summary Re	eport						
General Information		Site Information							
Analyst	NJB	Intersection	Kensington and Mariano's						
Agency/Co.	KLOA, Inc.	Jurisdiction	Arlington Heights						
Date Performed	7/13/2016	East/West Street	Kensington Road						
Analysis Year	2016	North/South Street	Mariano's Access Drive						
Time Analyzed	PM	Peak Hour Factor	0.94						
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25						
Project Description	PM Future Peak Hour								



Vehicle Volumes and Adjustments

Approach		Eastbound Westbound Northbound												South	bound			
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R		
Priority	10	1	2	3	4U	4	5	6		7	8	9		10	11	12		
Number of Lanes	0	0	1	0	0	1	1	0		0	0	0		0	0	0		
Configuration				TR		L	Т				LR							
Volume (veh/h)			178	59		102	300			29		123						
Percent Heavy Vehicles						0				0		1						
Proportion Time Blocked																		
Right Turn Channelized		Ν	lo			N	lo			Ν	lo			Ν	lo			
Median Type								Left	Only									
Median Storage									1									
Delay, Queue Length, and	Level	of Ser	vice															
Flow Rate (veh/h)						109					162							
Capacity						1325					689							
v/c Ratio						0.08					0.24							
95% Queue Length						0.3					0.9							
Control Delay (s/veh)						8.0					11.8							
Level of Service (LOS)						А					В							
Approach Delay (s/veh)					2.0					11	1.8							
Approach LOS											В							

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HCS 2010[™] TWSC Version 6.80 Kensington and Marianos Future PM.xtw Generated: 7/13/2016 3:36:39 PM

Fire Truck AutoTurn Exhibits

Kensington School Glenview, Illinois



