Traffic Impact Study **Proposed Day Care Center**

Arlington Heights, Illinois



Prepared For:





1. Introduction

This report summarizes the methodologies, results, and findings of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a proposed day care center to be located at 1000 W. Northwest Highway in Arlington Heights, Illinois. The site is located in the northwest corner of the intersection of Northwest Highway with Kennicott Avenue and currently contains a vacant building and its surface parking lot. As proposed, the building will be redeveloped into a day care center serving children ranging in age from 0-6+ years of age. As part of the proposed day care, the northerly portion of the parking lot (including the elimination of the existing access drive on Kennicott Avenue) will be converted into a playground, with the remainder of the surface parking lot providing approximately 49 parking spaces.

The purpose of this study was to examine background traffic conditions, assess the impact that the proposed day care will have on traffic conditions in the area, and determine if any roadway or access improvements are necessary to accommodate traffic generated by the proposed 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.

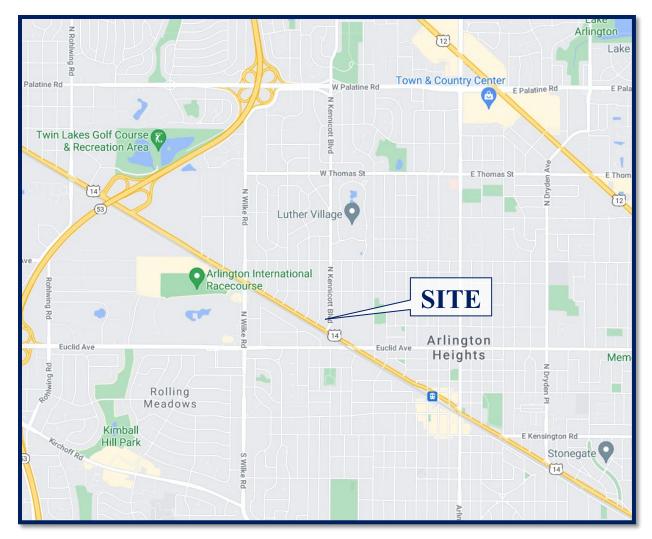
The sections of this report present the following:

- Existing roadway conditions
- A description of the proposed day care
- Directional distribution of the day care traffic
- Vehicle trip generation for the day care
- Future traffic conditions including access to the development
- Traffic analyses for the weekday morning and evening peak hours
- Recommendations with respect to adequacy of the site access and adjacent roadway system
- Evaluation of the adequacy of the parking supply

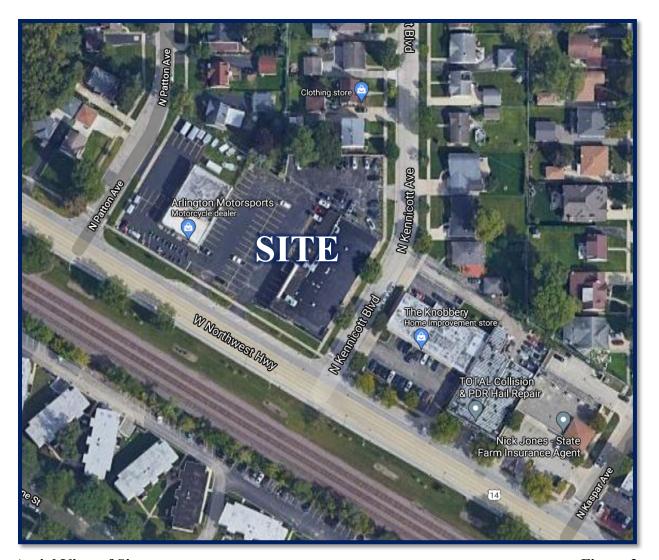
Traffic capacity analyses were conducted for the weekday morning and evening peak hours for the following conditions:

- 1. Existing Conditions Analyzes the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area.
- 2. Projected Conditions Analyzes the capacity of the future roadway system using the traffic volumes that include the background traffic volumes and the traffic estimated to be generated by the proposed development.





Site Location Figure 1



Aerial View of Site Figure 2

2. Existing Conditions

The following provides a description of the geographical location of the site, physical characteristics of the area roadway system including lane usage and traffic control devices, and existing peak hour traffic volumes.

Site Location

The site is located at 1000 W. Northwest Highway in Arlington Heights, Illinois in the northwest corner of the intersection of Northwest Highway with Kennicott Avenue. Running parallel to and across Northwest Highway from the site are Union Pacific railroad tracks. The site contains a currently vacant building totaling approximately 12,232 square feet. Access to the site is currently provided via two access drives on Arlington Heights Road and one access drive on Kennicott Avenue. The site provides 67 standard parking spaces and four accessible parking spaces, totaling 71 parking spaces. Land uses in the vicinity of the site are primarily commercial to the northwest and southeast and primarily residential to the north.

Existing Roadway System Characteristics

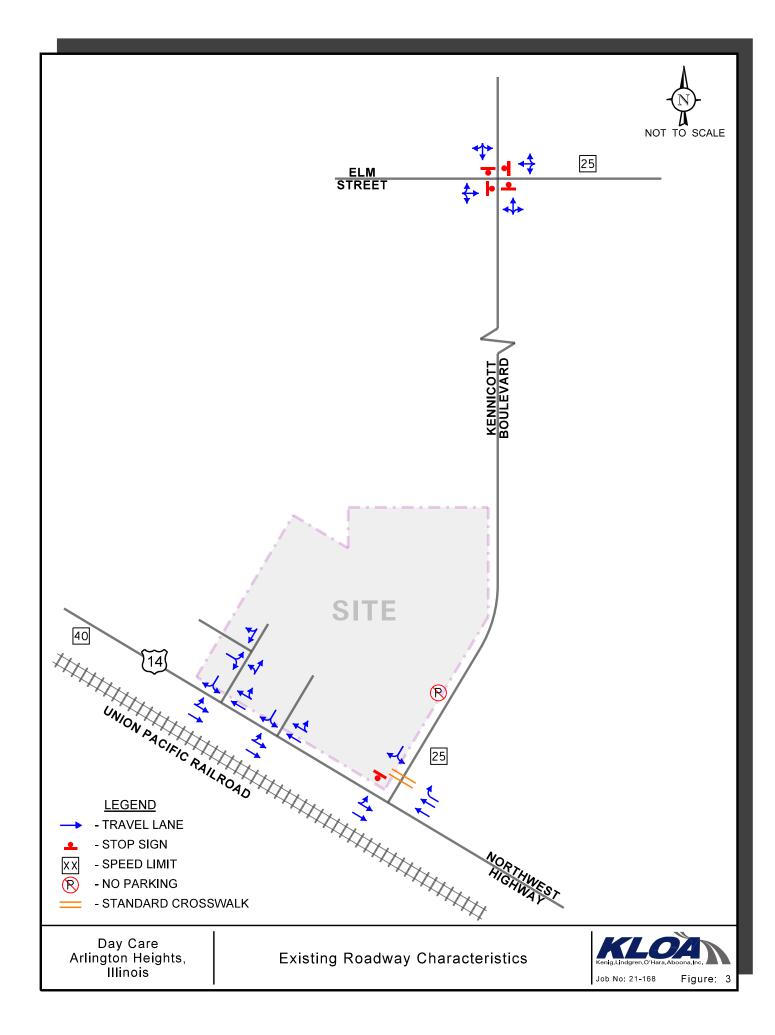
The characteristics of the existing roadways that surround the proposed location of the day care are illustrated in **Figure 3** and described below.

Northwest Highway is an east-west roadway, classified as a minor arterial, that provides two lanes in each direction. At its unsignalized intersection with Kennicott Avenue, Northwest Highway provides a shared left-turn/though-lane and a through lane on the eastbound approach. The westbound approach provides two through lanes and an exclusive right-turn lane. At its unsignalized intersections with the site's two access drives fronting the highway, Northwest Highway provides two lanes in each direction with no exclusive turn lanes. Northwest Highway is under the jurisdiction of the Illinois Department of Transportation (IDOT), carries an annual average daily traffic (AADT) volume of 15,800 vehicles (IDOT AADT 2017), and has a posted speed limit of 40 miles per hour. It should be noted that Northwest Highway is not classified as a Strategic Regional Arterial (SRA).

Kennicott Avenue is a north-south roadway, classified as a minor collector, that provides one lane in each direction. At its unsignalized intersection with Northwest Highway, Kennicott Avenue provides a shared left-turn/right-turn lane and a standard crosswalk on the southbound approach. At its unsignalized intersection with Elm Street, Kennicott Avenue provides a shared left-turn/through/right-turn lane on both the northbound and southbound approaches. Kennicott Avenue is under the jurisdiction of the Village of Arlington Heights, carries an AADT volume of 1,400 vehicles (IDOT AADT 2018), and has a posted speed limit of 25 miles per hour.

Elm Street is an east-west roadway, classified as a local road, that provides one lane in each direction. At its unsignalized intersection with Kennicott Avenue, Elm Street provides a shared left-turn/through/right-turn lane on both the eastbound and westbound approaches. Elm Street is under the jurisdiction of the Village of Arlington Heights and has a posted speed limit of 25 miles per hour.





Existing Traffic Volumes

Turning movement traffic counts using Miovision Scout Collection Units were conducted on Thursday, June 13, 2021, during the morning (7:00 to 9:00 A.M.) and evening (4:00 P.M. to 6:00 P.M.) peak periods at the intersections of Northwest Highway with Kennicott Avenue and Kennicott Avenue with Elm Street. The results of the traffic counts showed that the weekday morning peak hour of traffic occurs from 8:00 A.M. to 9:00 A.M. and the evening peak hour of traffic occurs from 4:45 P.M. to 5:45 P.M.

Due to the COVID-19 pandemic, it is anticipated that traffic volumes in the study area do not reflect normal or typical conditions. As such, the 2021 traffic counts were compared to count data available on the IDOT Traffic Count Data System website. The results of the comparison showed that the Year 2021 traffic volumes along Northwest Highway were approximately 50 percent less than the Year 2019 IDOT counts and, as such, the traffic counts along Northwest Highway and the turning movements to/from Kennicott Avenue were increased by 50 percent during the peak hours.

The Year 2021 base traffic volumes are illustrated in **Figure 4**. Copies of the traffic count summary sheets are included in the Appendix.

Crash Analysis

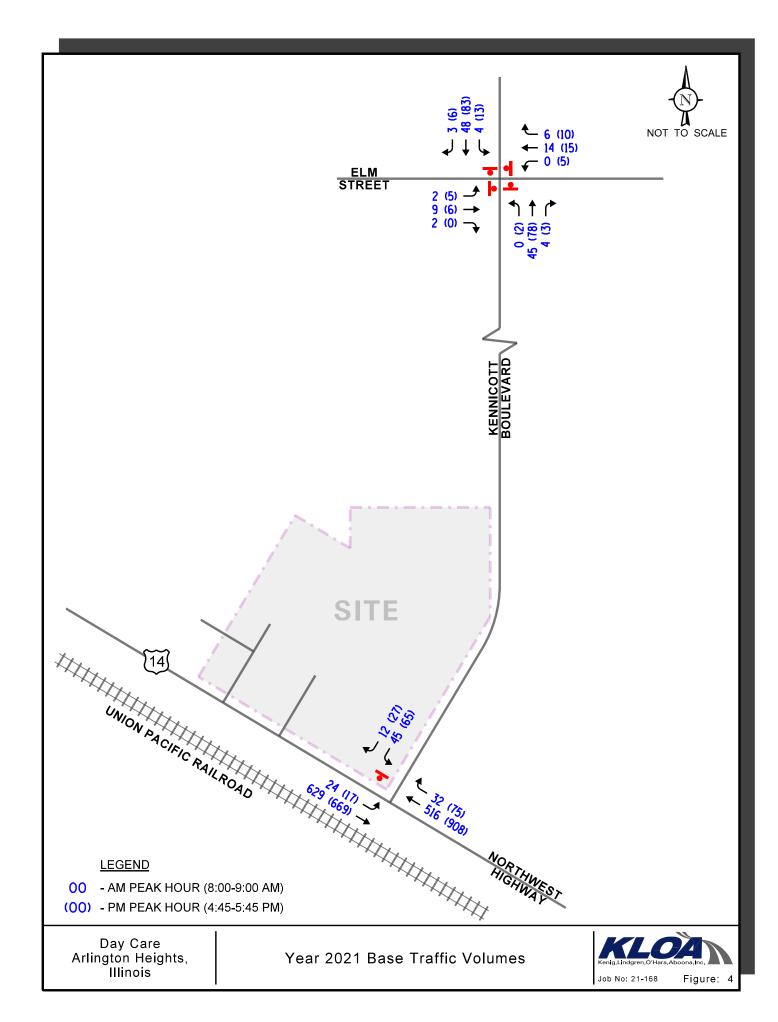
KLOA, Inc. obtained accident data¹ for the most recent available past five years (2016 to 2020) for the intersection of Northwest Highway with Kennicott Avenue. A summary of the crash data for the intersection of Northwest Highway with Kennicott Avenue is shown in **Table 1**. A review of the crash data revealed no fatalities were reported at any of the studied intersections during the review period.

Table 1
NORTHWEST HIGHWAY WITH KENNICOTT AVENUE - CRASH SUMMARY

| | | | Type of | Accident Fre | quency | | |
|--------------|----------|----------|----------|--------------|----------|----------|----------|
| Year | Angle | Object | Rear End | Sideswipe | Turning | Other | Total |
| 2016 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 2017 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| 2018 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 2019 | 0 | 0 | 0 | 0 | 3 | 0 | 3 |
| 2020 | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |
| Total | 0 | 0 | 0 | 1 | 6 | 0 | 7 |
| Average/Year | 0 | 0 | 0 | 0.2 | 1.2 | 0 | 1.4 |

¹ IDOT DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. Any conclusions drawn from analysis of the aforementioned data are the sole responsibility of the data recipient(s). Additionally, for coding years 2015 to present, the Bureau of Data Collection uses the exact latitude/longitude supplied by the investigating law enforcement agency to locate crashes. Therefore, location data may vary in previous years since data prior to 2015 was physically located by bureau personnel.





3. Traffic Characteristics of the Proposed Development

In order to properly evaluate future traffic conditions in the surrounding area, it was necessary to determine the traffic characteristics of the proposed development, including the directional distribution and volumes of traffic that it will generate.

Proposed Operations of Day Care Center

As proposed, the day care center will be occupying the existing building on site and is projected to maintain hours of operation of 7:00 A.M. to 6:00 P.M. The current building is 12,232 square feet and a 1,156 square foot addition is planned to be constructed, for a total building size of 13,388 square feet. The day care will have a maximum student capacity of approximately 203 children and will have up to 34 total staff members. The day care center will provide care and education for students aged 0 to 6+ in five different age categories. These categories include infant, young toddler, older toddler, children's house, and elementary.

Access to the day care center will continue to be provided via the two existing access driveways on Northwest Highway. The west access drive will provide inbound access and the east access drive will provide outbound access. Outbound movements on to Northwest Highway will be under stop sign control.

As part of the proposed development, the north portion of the site will be made into an outdoor playground with various equipment for the children attending the day care center. This will result in the closure and removal of the access drive on Kennicott Avenue as well as the removal of the parking lot and parking spaces to the north of the existing building.

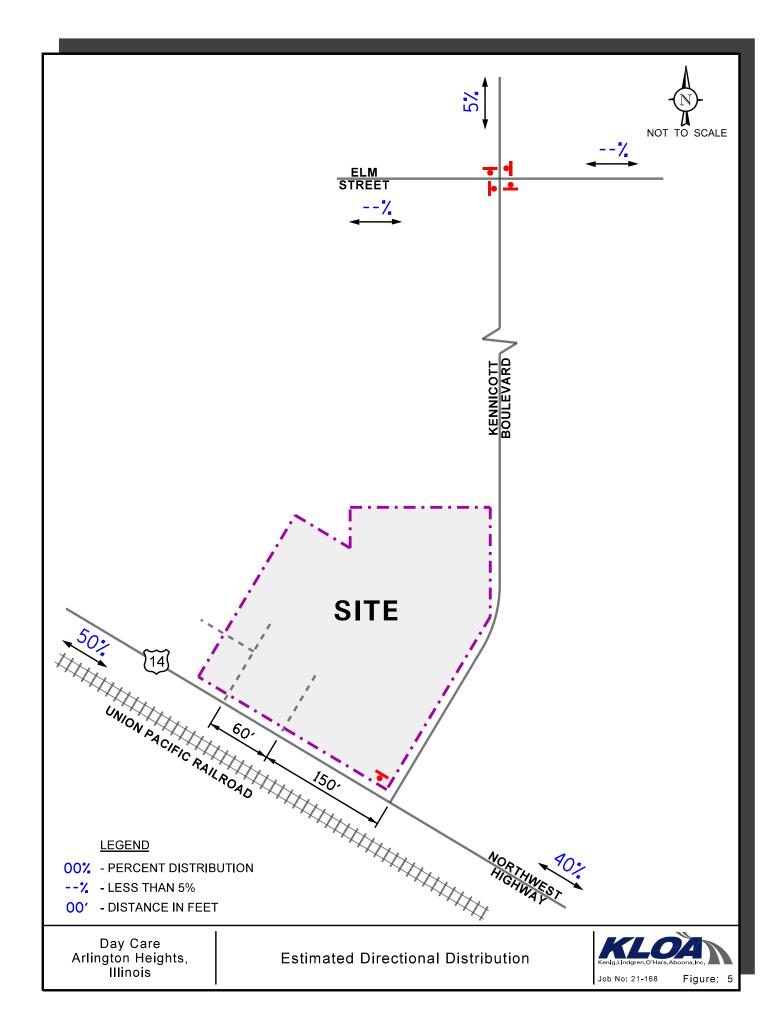
Pick-Up/Drop-Off Operations

The proposed day care center children will be transported to the facility by their parents or other guardians, and most will arrive via personal vehicle. Per the operator, most children are dropped off between the hours of 7:00 A.M. and 9:30 A.M., with some children arriving as late as 10:00 A.M. In the operator's experience, they expect approximately 13 percent of the children ride in the same car to and from the facility. For those children in day care, a half-day pickup option occurs between 1:00 P.M. and 2:00 P.M.; however, most children are picked up between the hours of 4:00 P.M. and 6:00 P.M. Those children in the elementary category can be dropped off as early as 7:00 A.M. and picked up as late as 6:00 P.M.

Directional Distribution of Site Traffic

The directional distribution of how traffic will approach and depart the proposed day care center was based on the existing travel patterns, the existing roadway characteristics, and the traffic controls surrounding the site. **Figure 5** illustrates the estimated directional distribution for the proposed day care center traffic.





Site Traffic Generation

The estimate of traffic to be generated by the proposed day care center was based on trip generation information published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10^{th} Edition. As previously indicated, the approximately 13,388 square-foot day care center will serve a maximum of 203 children. **Table 2** summarizes the estimated peak hour trip generation based on both variables using the 10^{th} Edition. As can be seen from Table 2, the trips estimated to be generated based on both methodologies were consistent, with the trip generation based on students being the higher. As such, the trip generation based on the number of students from the 10^{th} Edition was utilized for the purpose of this evaluation to be conservative in analysis.

It should be noted that since the original submittal of the traffic study, ITE released the 11th Edition of the *Trip Generation Manual*. As such, the volume of traffic estimated to be generated by the proposed day care center was estimated based on the 11th Edition of the manual to compare to the trips generated by the 10th Edition. **Table 3** summarizes the estimated peak hour trip generation based on both variables using the 11th Edition. As can be seen from Table 3, the trips generated using the 11th Edition were consistent or lower when compared to the 10th Edition.

Additionally, the ITE trip generations were compared to trip generations derived from information provided by the operator. Information included a breakdown of estimated arrival and departure times for students and staff. The slide including the student breakdown and the table including the staff breakdown are included in the Appendix. **Table 4** summarized the estimated peak hour trip generation based on this provided information. As can be seen from Table 4, the trips generated using the operator provided information are significantly lower when compared to the ITE generated trips. As such, the 10th Edition volumes were utilized for the purpose of this evaluation.

Table 2 ESTIMATED TRIP GENERATION – ITE TRIP GENERATION MANUAL, 10TH EDITION

| ITE Land | | | kday Mo eak Ho | U | | ekday E Peak Ho | U | Da | ily Two Trips | • |
|-------------|-------------------------|----|-------------------|-------|----|--------------------|-------|-----|------------------|-------|
| Use | Type/Size | In | Out | Total | In | Out | Total | In | Out | Total |
| 565 | Day Care (13,388 s.f.) | 78 | 70 | 148 | 70 | 79 | 149 | 319 | 319 | 638 |
| 565 | Day Care (203 Students) | 84 | 75 | 159 | 76 | 85 | 161 | 416 | 416 | 832 |



Table 3
ESTIMATED TRIP GENERATION – ITE TRIP GENERATION MANUAL, 11TH EDITION

| ITE Land | | | kday Mo eak Ho | U | | kday E ^y Peak Ho | | Da | nily Two Trip | • |
|-------------|-------------------------|----|-------------------|-------|----|--------------------------------|-------|-----|------------------|-------|
| Use | Type/Size | In | Out | Total | In | Out | Total | In | Out | Total |
| 565 | Day Care (13,388 s.f.) | 78 | 69 | 147 | 70 | 79 | 149 | 319 | 319 | 638 |
| 565 | Day Care (203 Students) | 75 | 67 | 142 | 64 | 72 | 136 | 385 | 385 | 770 |

Table 4
ESTIMATED TRIP GENERATION – ITE TRIP GENERATION MANUAL, 11TH EDITION

| | | | y Morning x Hour | | | | ıy Evening k Hour | , |
|----------------|----------|----|---------------------|-------|------|----|----------------------|-------|
| | Time | In | Out | Total | Time | In | Out | Total |
| Students (203) | 8:00 | 10 | 10 | 20 | 4:45 | 5 | 5 | 10 |
| Staff (34) | 0.00 | 7 | 0 | 7 | | 0 | 7 | 7 |
| Students (203) | 8:15 | 13 | 13 | 26 | 5:00 | 5 | 5 | 10 |
| Staff (34) | 0.13 | 0 | 0 | 0 | 2.00 | 0 | 4 | 4 |
| Students (203) | 8:30 | 14 | 14 | 28 | 5:15 | 5 | 5 | 10 |
| Staff (34) | | 0 | 0 | 0 | | 0 | 0 | 0 |
| Students (203) | 8:45 | 10 | 10 | 20 | 5:30 | 5 | 5 | 10 |
| Staff (34) | . | 4 | 0 | 4 | | 0 | 0 | 0 |
| Hourly Total | | 58 | 47 | 105 | | 20 | 31 | 51 |



4. Projected Traffic Conditions

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

Development Traffic Assignment

The estimated peak hour traffic volumes that will be generated by the proposed day care were assigned to the roadway system in accordance with the previously described directional distribution. **Figure 6** illustrates the assignment of the traffic volumes estimated to be generated by the proposed development.

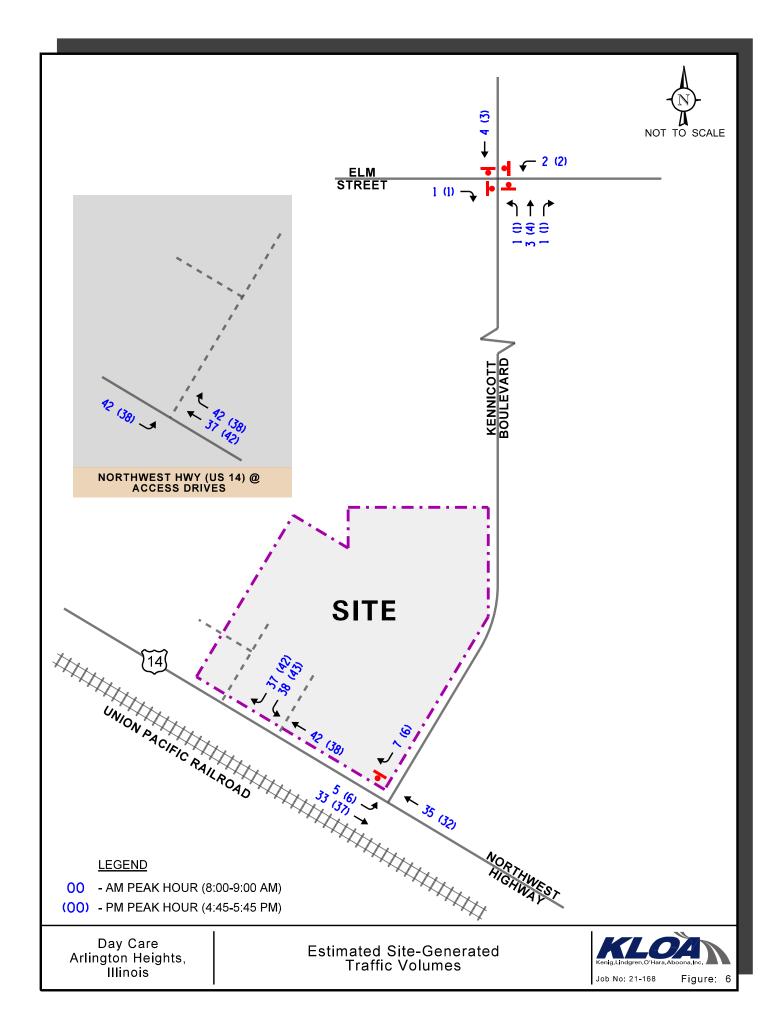
Background Traffic Conditions

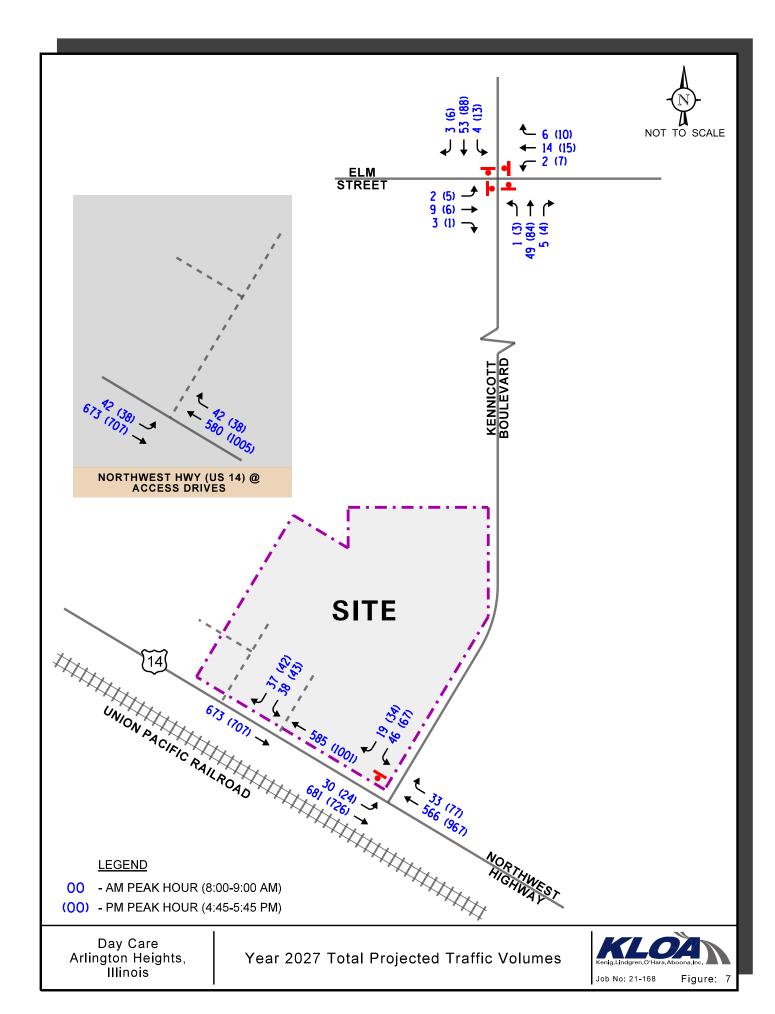
The existing traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned development). Based on 2050 Average Daily Traffic (ADT) projections provided by the Chicago Metropolitan Agency for Planning (CMAP) in a letter dated July 21, 2021, the existing traffic volumes were increased by an annually compounded growth rate of 0.5 percent for six years (one-year buildout plus five years) totaling approximately three percent to represent Year 2027 background conditions. A copy of the CMAP 2050 projections letter is included in the Appendix.

Total Projected Traffic Volumes

The total projected traffic volumes include the existing traffic volumes increased by the regional growth factor and the traffic estimated to be generated by the proposed development (Figure 6). **Figure 7** shows the Year 2027 total projected traffic volumes.







5. Traffic Analysis and Recommendations

The following provides an evaluation conducted for the weekday morning and evening peak hours. The analysis includes conducting capacity analyses to determine how well the roadway system and access drives are projected to operate and whether any roadway improvements or modifications are required.

Traffic Analyses

Roadway and adjacent or nearby intersection analyses were performed for the weekday morning and evening peak hours for the existing (Year 2021) and future projected (Year 2027) traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM)*, 6th Edition and analyzed using Synchro/SimTraffic 11 software.

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 from A to F based on the average control delay experienced by vehicles passing through the intersection. The *Highway Capacity Manual* definitions for levels of service and the corresponding control delay for signalized intersections and unsignalized intersections are included in the Appendix of this report.

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the existing (Year 2021) and (Year 2027) total projected conditions are presented in **Tables 5** and **6**. A discussion of the intersections follows. Summary sheets for the capacity analyses are included in the Appendix.



Table 5 CAPACITY ANALYSIS RESULTS – EXISTING CONDITIONS – UNSIGNALIZED

| | • | Morning Hour | | y Evening Hour |
|--------------------------------------------------------------------------------------------------------------------|-----|-----------------|-----|-------------------|
| Location | LOS | Delay | LOS | Delay |
| Northwest Highway with Kennicott Avenue ¹ | | | | |
| Southbound Approach | C | 21.2 | F | 79.0 |
| Eastbound Left Turn | A | 8.7 | В | 10.9 |
| Kennicott Avenue with Elm Street ² | | | | |
| • Overall | A | 7.3 | A | 8.1 |
| Eastbound Approach | A | 7.2 | A | 7.6 |
| Westbound Approach | A | 7.1 | A | 7.8 |
| Northbound Approach | A | 7.3 | A | 8.7 |
| Southbound Approach | A | 7.3 | A | 7.8 |
| LOS - Level of Service Delay is measured in seconds. 1 – Two-Way Stop Sign Control 2 – All-Way Stop Sign Control | | | | |

Table 6
CAPACITY ANALYSES RESULTS – PROJECTED CONDITIONS – UNSIGNALIZED

| | | y Morning K Hour | | y Evening Hour |
|----------------------------------------------------------------------------------|-----|---------------------|-----|-------------------|
| Location | LOS | Delay | LOS | Delay |
| Northwest Highway with Kennecott Avenue ¹ | | | | |
| Southbound Approach | C | 23.7 | F | 99+ |
| Eastbound Left Turn | A | 8.9 | В | 11.3 |
| Kennecott Avenue with Elm Street ¹ | | | | |
| • Overall | A | 7.3 | A | 8.0 |
| Eastbound Approach | A | 7.2 | A | 7.6 |
| Westbound Approach | A | 7.2 | A | 7.9 |
| Northbound Approach | A | 7.3 | A | 8.4 |
| Southbound Approach | A | 7.4 | A | 7.8 |
| Northwest Highway with West Access Drive ¹ | | | | |
| Eastbound Left Turn | A | 9.0 | В | 11.2 |
| Northwest Highway with East Access Drive ¹ | | | | |
| Southbound Approach | C | 17.4 | Е | 40.3 |
| LOS - Level of Service Delay is measured in seconds. 1-Unsignalized Intersection | | | | |

1-Unsignalized Intersection

Discussion and Recommendations

The following summarizes how the intersections are projected to operate and identify any roadway and traffic control improvements needed to accommodate the school traffic.

Northwest Highway with Kennicott Avenue

The results of the capacity analyses indicate that the southbound approach currently operates at Level of Service (LOS) C during the weekday morning peak hour and at LOS F during the weekday evening peak hour. It should be noted that the LOS F during the weekday evening peak hour is expected for a minor approach that has an unsignalized intersection with a major roadway such as Northwest Highway. The eastbound left-turn movement currently operates at LOS A during the weekday morning peak hour and at LOS B during the weekday evening peak hour. Under future conditions, the southbound approach is projected to continue operating at the existing levels of service. However, the level of service during the weekday evening peak hour is a result of the existing traffic volumes and as previously indicated, is expected for a minor street unsignalized approach to a major roadway. Furthermore, eastbound left-turn movements are projected to continue operating at existing levels of service with increases in delay of less than one second. Additionally, it should be noted that the volume-to-capacity ratio for the southbound approach is projected to be less than 1.0, and that the 95th percentile queues for the southbound approach are projected to increase by one to two vehicles. Also, the results of the capacity analysis do not take into consideration the proximity of the signalized intersection of Northwest Highway with Euclid Avenue, which create gaps in the Northwest Highway traffic stream, allowing vehicles to turn to/from Kennicott. As such, the proposed day care center will have a limited impact on the operations of this intersection and no roadway or signal modifications will be required.

Kennicott Avenue with Elm Street

The results of the capacity analyses indicate that the overall intersection currently operates at LOS A during the weekday morning and evening peak hours. Assuming future conditions, the intersection will continue operating at LOS A, with increases in delay of less than one second. All approaches currently operate at LOS A and assuming future conditions will continue to operate at LOS A. As such, the proposed day care center will have limited impact on the operations of this intersection and no roadway or traffic control improvements will be required.

Northwest Highway with Access Drives

The results of the capacity analysis for traffic generated by the proposed day care center indicate that the outbound movements from the east access drive will operate at LOS C during the weekday morning peak hour and LOS E during the weekday evening peak hour with a volume-to-capacity ratio of less than 1.0 with 95th percentile queues of one to two vehicles. Furthermore, the eastbound left-turn inbound to the site will operate at LOS A during the weekday morning peak hour and LOS B during the weekday evening peak hour with 95th percentile queues of one to two vehicles which will have a limited impact on the through traffic along Northwest Highway. As such, these access drives will be adequate in accommodating the traffic projected to be generated by the proposed development and will ensure efficient and flexible access is provided.



Parking Evaluation

Arlington Heights code requires parking at a ratio of three parking spaces for every two employees for a day care, and one parking space for every employee and one space for every five classrooms for elementary schools. As such, a total of 47 parking spaces are required for the proposed day care, including two ADA accessible spaces. As proposed, the site will provide 49 parking spaces which includes two ADA accessible spaces. Therefore, the proposed parking lot will be able to meet requirements and adequately serve the facility.

Pick-Up and Drop-Off Operations Evaluation

As previously indicated, children will arrive at the proposed day care center via personal vehicle, transported by their parents or other guardians. For the purposes of this evaluation, it was assumed that most children will be driven to the facility, the vehicle parked, and then the children walked into the building. Once dropped off, the driver will return to the vehicle and leave the site. At the end of the day, to depart, the children are assumed to be walked out of the facility by their respective parent or guardian to the parked vehicle. Per information provided by the operator, on average, 13 percent of children attending the day care center ride in the same car to and from the facility.

Based on operator surveys of existing facilities, most children are dropped off between the hours of 7:00 A.M. and 9:30 A.M. The largest number of students dropped off typically occurs between 8:00 A.M and 9:00 A.M. with approximately 37 percent of students being dropped off during this hour. Most children are picked up between the hours of 4:00 P.M. and 6:00 P.M. However, some of the children are enrolled for a half-day and as such are picked up between 1:00 P.M. and 2:00 P.M. Throughout the day it is generally assumed that 34 parking spaces will be occupied by employees. This results in 13 parking spaces available to be utilized for pick-up/drop-off activities and for visitors. Based on information provided by the operator (included in the Appendix), during the highest 15-minute drop-off peak, approximately 11 percent of students are dropped off during this time. Taking into consideration also that approximately 13 percent of children are siblings, approximately 19 vehicles will be performing drop-off/pick-up activities during the peak 15-minute drop-off period.



Due to the ongoing nature of drop-off and pick up activities with the process for parents and guardians taking approximately 5-10 minutes and the staggered nature of staff's arrival and departure, the available parking spaces during the peak period will provide adequate parking to accommodate both parked vehicles for staff and drop-off and pick up activities. As parking during this peak, "worst-case scenario" 15-minute period is adequate, parking during the rest of the day is assumed to also be adequate. Circulation through the site is proposed to be one-way. Vehicles will enter the site at the inbound-only westerly access drive and will proceed clockwise through the site to the outbound-only easterly access drive. Employees will be required to park on the west side of the site, leaving the parking spaces closest to the doors on the east side of the parking lot available for drop off/pick-up activities. Additionally, by directing these activities to the east side of the parking lot, maximum on-site stacking will be available should a vehicle need to wait for a parking space to become available. Based on the above, the proposed site will adequately accommodate drop off and pick up activities, minimizing conflicts and congestion on site and any potential for traffic backups onto Northwest Highway.



6. Conclusion

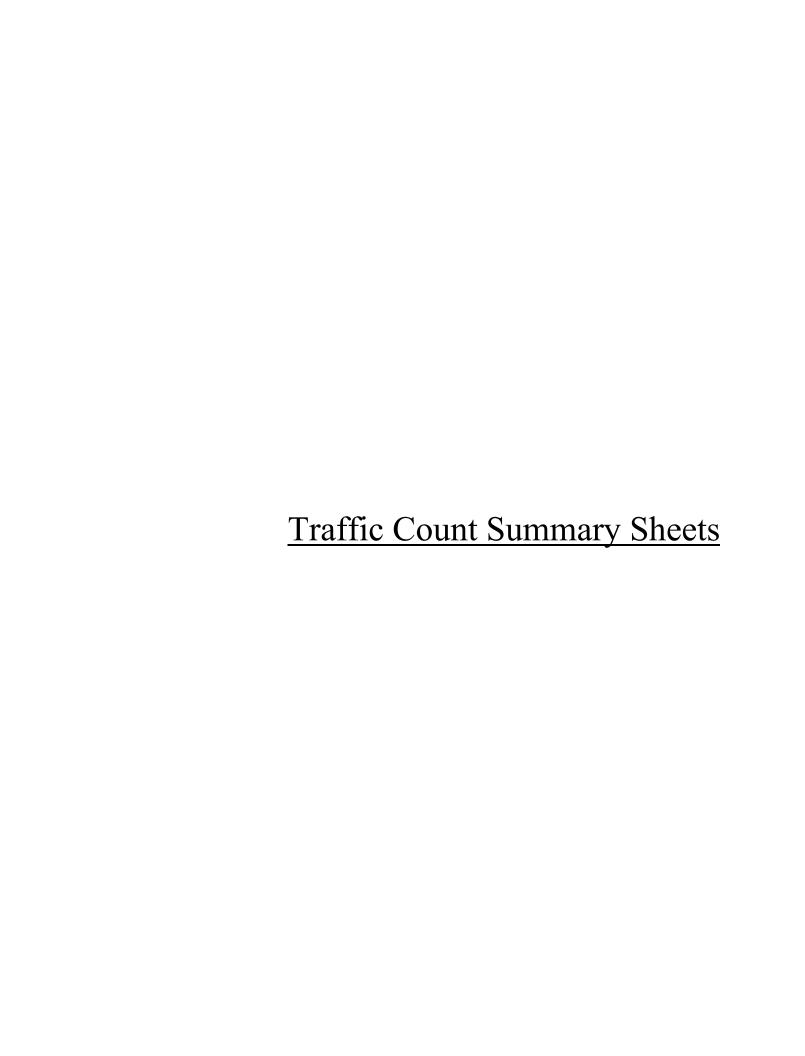
Based on the preceding analyses and recommendations, the following conclusions have been made:

- The results of the capacity analysis indicate that the proposed day care center traffic will not have a significant impact on the area roadways.
- The proposed access system modified to one-way pair will be adequate in accommodating the traffic projected to be generated by the proposed development.
- The proposed 49 parking spaces meet Village code and will be adequate in accommodating the projected parking demand.
- As part of the proposed development, the existing access drive on Kennicott Avenue will be eliminated.
- The drop-off/pick-up operations of the proposed day care center, including modification to the parking lot to promote one way circulation, will be adequately accommodated onsite with minimal congestion and conflicts.



Appendix

Traffic Count Summary Sheets
Site Plan
CMAP 2050 Projections Letter
Level of Service Criteria
Capacity Analysis Summary Sheets
Arrival/Departure Data





Count Name: Kennicott Avenue with Northwest Highway Site Code: Start Date: 06/17/2021 Page No: 1

Turning Movement Data

| | | ~ | Northwest Highway | > | | | . °2 | Northwest Highway | i | | | × | Kennicott Avenue | | | |
|----------------------|--------|-------|-------------------|------|------------|--------|------|-------------------|------|------------|--------|------|------------------|-------|------------|------------|
| C troto | | | Eastbound | | | | | Westbound | | | | | Southbound | | | |
| Statt Hille | U-Turn | Left | Thru | Peds | App. Total | U-Turn | Thru | Right | Peds | App. Total | U-Turn | Left | Right | Peds | App. Total | Int. Total |
| 7:00 AM | 0 | 0 | 62 | 0 | 62 | 0 | 09 | 9 | 0 | 99 | 0 | 6 | 0 | 0 | 6 | 137 |
| 7:15 AM | 0 | 1 | 101 | 0 | 102 | 0 | 64 | 1 | 0 | 65 | 0 | 9 | 7 | 0 | 13 | 180 |
| 7:30 AM | 0 | 3 | 95 | 0 | 86 | 0 | 79 | 9 | 0 | 85 | 0 | 10 | 1 | 0 | 11 | 194 |
| 7:45 AM | 0 | 2 | 102 | 0 | 104 | 0 | 62 | 2 | 0 | 81 | 0 | 12 | 3 | 4 | 15 | 200 |
| Hourly Total | 0 | 9 | 360 | 0 | 366 | 0 | 282 | 15 | 0 | 297 | 0 | 37 | 11 | 4 | 48 | 711 |
| 8:00 AM | 0 | 4 | 96 | 0 | 100 | 0 | 91 | 5 | 0 | 96 | 0 | 9 | 5 | 0 | 11 | 207 |
| 8:15 AM | 0 | 3 | 92 | 0 | 95 | 0 | 70 | 9 | 0 | 92 | 0 | 6 | 2 | 1 | 11 | 182 |
| 8:30 AM | 0 | 5 | 116 | 0 | 121 | 0 | 94 | 5 | 0 | 66 | 0 | 7 | 1 | 3 | 8 | 228 |
| 8:45 AM | 0 | 4 | 115 | 0 | 119 | 0 | 89 | 5 | 0 | 94 | 0 | 8 | 0 | 0 | 8 | 221 |
| Hourly Total | 0 | 16 | 419 | 0 | 435 | 0 | 344 | 21 | 0 | 365 | 0 | 30 | 8 | 4 | 38 | 838 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4:00 PM | 0 | 1 | 06 | 0 | 91 | 0 | 119 | 6 | 0 | 128 | 0 | 15 | 9 | 0 | 21 | 240 |
| 4:15 PM | 1 | 5 | 112 | 0 | 118 | 0 | 123 | 12 | 0 | 135 | 0 | 14 | 9 | 0 | 20 | 273 |
| 4:30 PM | 0 | 1 | 107 | 0 | 108 | 0 | 125 | 14 | 0 | 139 | 0 | 13 | 10 | 0 | 23 | 270 |
| 4:45 PM | 0 | 3 | 102 | 0 | 105 | 0 | 140 | 15 | 0 | 155 | 0 | 12 | 5 | 0 | 17 | 277 |
| Hourly Total | 1 | 10 | 411 | 0 | 422 | 0 | 202 | 50 | 0 | 557 | 0 | 54 | 27 | 0 | 81 | 1060 |
| 5:00 PM | 0 | 2 | 114 | 0 | 116 | 0 | 158 | 5 | 0 | 163 | 0 | 8 | 4 | 0 | 12 | 291 |
| 5:15 PM | 0 | 2 | 133 | 0 | 135 | 0 | 173 | 12 | 0 | 185 | 0 | 8 | 5 | 0 | 13 | 333 |
| 5:30 PM | 0 | 4 | 97 | 0 | 101 | 0 | 134 | 18 | 0 | 152 | 0 | 15 | 4 | _ | 19 | 272 |
| 5:45 PM | 0 | 5 | 129 | 0 | 134 | 0 | 113 | 9 | 0 | 119 | 0 | 6 | 7 | _ | 16 | 269 |
| Hourly Total | 0 | 13 | 473 | 0 | 486 | 0 | 578 | 41 | 0 | 619 | 0 | 40 | 20 | 2 | 60 | 1165 |
| Grand Total | 1 | 45 | 1663 | 0 | 1709 | 0 | 1711 | 127 | 0 | 1838 | 0 | 161 | 99 | 10 | 227 | 3774 |
| Approach % | 0.1 | 2.6 | 97.3 | - | - | 0.0 | 93.1 | 6.9 | - | - | 0.0 | 70.9 | 29.1 | - | | - |
| Total % | 0.0 | 1.2 | 44.1 | - | 45.3 | 0.0 | 45.3 | 3.4 | | 48.7 | 0.0 | 4.3 | 1.7 | - | 6.0 | |
| Lights | 0 | 45 | 1604 | ' | 1649 | 0 | 1652 | 124 | | 1776 | 0 | 157 | 64 | | 221 | 3646 |
| % Lights | 0.0 | 100.0 | 96.5 | , | 96.5 | - | 9.96 | 97.6 | | 9.96 | _ | 97.5 | 97.0 | - | 97.4 | 9.96 |
| Buses | 0 | 0 | 1 | | 1 | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | | 0 | 2 |
| % Buses | 0.0 | 0.0 | 0.1 | , | 0.1 | | 0.1 | 0.0 | | 0.1 | | 0.0 | 0.0 | | 0.0 | 0.1 |
| Single-Unit Trucks | 0 | 0 | 35 | - | 35 | 0 | 36 | 2 | - | 38 | 0 | 4 | 2 | - | 6 | 79 |
| % Single-Unit Trucks | 0.0 | 0.0 | 2.1 | | 2.0 | | 2.1 | 1.6 | - | 2.1 | | 2.5 | 3.0 | - | 2.6 | 2.1 |
| Articulated Trucks | 1 | 0 | 23 | , | 24 | 0 | 22 | 1 | | 23 | 0 | 0 | 0 | | 0 | 47 |
| % Articulated Trucks | 100.0 | 0.0 | 1.4 | , | 1.4 | | 1.3 | 0.8 | 1 | 1.3 | , _ | 0.0 | 0.0 | 1 | 0.0 | 1.2 |
| Bicycles on Road | 0 | 0 | 0 | 1 | 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 |
| Pedestrians | , | | | 0 | , | | | | 0 | | , _ | | | 10 | , | |
| % Pedestrians | | | | ' | | ' | | | | | • | | | 100.0 | | |



Count Name: Kennicott Avenue with Northwest Highway Site Code: Start Date: 06/17/2021 Page No: 2

Turning Movement Peak Hour Data (8:00 AM)

| | - | | | | בי בי | nining Moveri | תובו המ | TEAR FIOUR DATA (0.00 AIVI) | Jala (0. | | | | | | | |
|----------------------|-------|-------|-------------------|------|------------|---------------|---------|-----------------------------|----------|------------|--------|-------|------------------|-------|------------|------------|
| | | z | Northwest Highway | ^ | | | Ň | Northwest Highway | | | | × | Kennicott Avenue | | | |
| Ë | | | Eastbound | | | | | Westbound | | | | | Southbound | | | |
| Start Time | U-Tum | Left | Thru | Peds | App. Total | U-Turn | Thru | Right | Peds | App. Total | U-Turn | Left | Right | Peds | App. Total | Int. Total |
| 8:00 AM | 0 | 4 | 96 | 0 | 100 | 0 | 91 | 5 | 0 | 96 | 0 | 9 | 5 | 0 | 11 | 207 |
| 8:15 AM | 0 | 3 | 92 | 0 | 92 | 0 | 20 | 9 | 0 | 92 | 0 | 6 | 2 | 1 | 11 | 182 |
| 8:30 AM | 0 | 5 | 116 | 0 | 121 | 0 | 94 | 5 | 0 | 66 | 0 | 7 | 1 | 3 | 8 | 228 |
| 8:45 AM | 0 | 4 | 115 | 0 | 119 | 0 | 89 | 5 | 0 | 94 | 0 | 8 | 0 | 0 | 8 | 221 |
| Total | 0 | 16 | 419 | 0 | 435 | 0 | 344 | 21 | 0 | 365 | 0 | 30 | 8 | 4 | 38 | 838 |
| Approach % | 0.0 | 3.7 | 96.3 | - | - | 0.0 | 94.2 | 5.8 | | - | 0.0 | 78.9 | 21.1 | - | - | - |
| Total % | 0.0 | 1.9 | 50.0 | - | 51.9 | 0.0 | 41.1 | 2.5 | | 43.6 | 0.0 | 3.6 | 1.0 | - | 4.5 | - |
| PHF | 0.000 | 0.800 | 0.903 | - | 0.899 | 0.000 | 0.915 | 0.875 | - | 0.922 | 0.000 | 0.833 | 0.400 | - | 0.864 | 0.919 |
| Lights | 0 | 16 | 399 | - | 415 | 0 | 330 | 20 | | 350 | 0 | 29 | 8 | - | 37 | 802 |
| % Lights | - | 100.0 | 95.2 | - | 95.4 | | 95.9 | 95.2 | | 95.9 | - | 2.96 | 100.0 | - | 97.4 | 95.7 |
| Buses | 0 | 0 | 0 | - | 0 | 0 | 1 | 0 | | 1 | 0 | 0 | 0 | - | 0 | 1 |
| % Buses | - | 0.0 | 0.0 | - | 0.0 | - | 0.3 | 0.0 | - | 0.3 | | 0.0 | 0.0 | - | 0.0 | 0.1 |
| Single-Unit Trucks | 0 | 0 | 12 | - | 12 | 0 | 10 | 1 | - | 11 | 0 | 1 | 0 | - | 1 | 24 |
| % Single-Unit Trucks | - | 0.0 | 2.9 | - | 2.8 | - | 2.9 | 4.8 | | 3.0 | - | 3.3 | 0.0 | - | 2.6 | 2.9 |
| Articulated Trucks | 0 | 0 | 8 | | 8 | 0 | 3 | 0 | | 3 | 0 | 0 | 0 | | 0 | 11 |
| % Articulated Trucks | - | 0.0 | 1.9 | - | 1.8 | - | 6.0 | 0.0 | - | 0.8 | • | 0.0 | 0.0 | - | 0.0 | 1.3 |
| Bicycles on Road | 0 | 0 | 0 | 1 | 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 |
| Pedestrians | - | - | - | 0 | - | • | - | - | 0 | - | | - | - | 4 | - | |
| % Pedestrians | | | | | | | | | , | | | | | 100.0 | | |



Count Name: Kennicott Avenue with Northwest Highway Site Code: Start Date: 06/17/2021 Page No: 3

Turning Movement Peak Hour Data (4:45 PM)

| | | | | | SULLINI SULLINI | urning Movern | neri rea | Peak Hour Data (4.45 PM | 'ala (4. | 40 TM) | | | | | | |
|----------------------|--------|-------|-------------------|------|--------------------|---------------|----------|-------------------------|----------|------------|--------|-------|------------------|-------|------------|------------|
| | | 2 | Northwest Highway | Ş. | | | No | Northwest Highway | | , | | ž | Kennicott Avenue | | | |
| F | | | Eastbound | | | | | Westbound | | | | | Southbound | | | |
| Start Time | U-Turn | Left | Thru | Peds | App. Total | U-Turn | Thru | Right | Peds | App. Total | U-Turn | Left | Right | Peds | App. Total | Int. Total |
| 4:45 PM | 0 | 3 | 102 | 0 | 105 | 0 | 140 | 15 | 0 | 155 | 0 | 12 | 5 | 0 | 17 | 277 |
| 5:00 PM | 0 | 2 | 114 | 0 | 116 | 0 | 158 | 5 | 0 | 163 | 0 | 8 | 4 | 0 | 12 | 291 |
| 5:15 PM | 0 | 2 | 133 | 0 | 135 | 0 | 173 | 12 | 0 | 185 | 0 | 8 | 5 | 0 | 13 | 333 |
| 5:30 PM | 0 | 4 | 26 | 0 | 101 | 0 | 134 | 18 | 0 | 152 | 0 | 15 | 4 | 1 | 19 | 272 |
| Total | 0 | 11 | 446 | 0 | 457 | 0 | 605 | 50 | 0 | 655 | 0 | 43 | 18 | 1 | 61 | 1173 |
| Approach % | 0.0 | 2.4 | 92.6 | - | - | 0.0 | 92.4 | 9.7 | | - | 0.0 | 70.5 | 29.5 | | - | - |
| Total % | 0.0 | 6.0 | 38.0 | - | 39.0 | 0.0 | 51.6 | 4.3 | | 55.8 | 0.0 | 3.7 | 1.5 | | 5.2 | |
| PHF | 0.000 | 0.688 | 0.838 | - | 0.846 | 0.000 | 0.874 | 0.694 | | 0.885 | 0.000 | 0.717 | 0.900 | | 0.803 | 0.881 |
| Lights | 0 | 11 | 436 | | 447 | 0 | 588 | 49 | | 637 | 0 | 40 | 17 | | 57 | 1141 |
| % Lights | - | 100.0 | 97.8 | | 97.8 | - | 97.2 | 98.0 | | 97.3 | - | 93.0 | 94.4 | _ | 93.4 | 97.3 |
| Buses | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 |
| % Buses | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | | 0.0 | - | 0.0 | 0.0 | | 0.0 | 0.0 |
| Single-Unit Trucks | 0 | 0 | 9 | | 9 | 0 | 10 | 0 | | 10 | 0 | 3 | 1 | _ | 4 | 20 |
| % Single-Unit Trucks | - | 0.0 | 1.3 | - | 1.3 | - | 1.7 | 0.0 | | 1.5 | - | 7.0 | 5.6 | - | 9.9 | 1.7 |
| Articulated Trucks | 0 | 0 | 4 | | 4 | 0 | 7 | 1 | | 8 | 0 | 0 | 0 | - | 0 | 12 |
| % Articulated Trucks | - | 0.0 | 0.9 | | 6.0 | - | 1.2 | 2.0 | | 1.2 | - | 0.0 | 0.0 | _ | 0.0 | 1.0 |
| Bicycles on Road | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 |
| Pedestrians | - | | | 0 | - | | • | - | 0 | - | - | • | - | 1 | - | - |
| % Pedestrians | - | - | - | - | - | _ | - | - | | - | - | - | • | 100.0 | - | - |



Count Name: Elm Street with Kenicott Avenue Site Code: Start Date: 06/17/2021 Page No: 1

Turning Movement Data

| _ | | | | | | - | | | | | ĭ ∑ | lover | urning Movement Data | | | | | - | | | | | | - | |
|-------------------------|--------|------|------------|-------|------|---------------|--------|------|------------|-------|--------|---------------|----------------------|------|------------------|-------|------|---------------|--------|------|------------------|--------|--------|----------|-----------|
| | | | Elm Street | treet | | - | | | Elm Street | treet | | | | | Kennicott Avenue | wenue | | | | | Kennicott Avenue | Avenue | | | |
| į | | | Eastbound | punc | | | | | Westbound | puno | | | | | Northbound | pun | | - | | | Southbound | pund | | | |
| 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 1 | App. Int | nt. Total |
| 7:00 AM | 0 | 1 | 3 | 0 | 0 | 4 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 1 | 7 | 0 | 0 | 8 | 0 | 4 | 7 | 0 | 3 | 11 | 25 |
| 7:15 AM | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 3 | 3 | 1 | 0 | 7 | 0 | 0 | 1 | 3 | 1 | 4 | 0 | 2 | 6 | 0 | 4 | 11 | 24 |
| 7:30 AM | 0 | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 2 | 2 | 1 | 4 | 0 | 0 | 9 | 0 | 2 | 9 | 0 | 3 | 11 | 0 | 3 | 14 | 25 |
| 7:45 AM | 0 | 1 | 1 | 0 | 2 | 2 | 0 | 0 | 2 | 1 | 3 | 3 | 0 | 1 | 4 | 0 | 0 | 5 | 0 | 0 | 14 | 0 | 1 | 14 | 24 |
| Hourly Total | 0 | 3 | 9 | 0 | 4 | 6 | 0 | 3 | 6 | 4 | 4 | 16 | 0 | 2 | 18 | 3 | 3 | 23 | 0 | 6 | 41 | 0 | 11 | 20 | 98 |
| 8:00 AM | 0 | 0 | - | 0 | 0 | 1 | 0 | 0 | 3 | - | 0 | 4 | 0 | 0 | 9 | 2 | 0 | 8 | 0 | 2 | 8 | 0 | 1 | 10 | 23 |
| 8:15 AM | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 10 | 1 | 0 | 11 | 0 | 1 | 11 | 0 | 0 | 12 | 31 |
| 8:30 AM | 0 | 1 | 2 | 0 | 1 | 3 | 0 | 0 | 3 | 2 | 1 | 5 | 0 | 0 | 8 | 1 | 1 | 6 | 0 | 0 | 9 | 0 | 4 | 9 | 23 |
| 8:45 AM | 0 | 1 | 4 | 2 | 0 | 7 | 0 | 0 | 2 | 3 | 1 | 5 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 1 | 7 | 3 | 2 | 11 | 29 |
| Hourly Total | 0 | 2 | 6 | 2 | _ | 13 | 0 | 0 | 14 | 9 | 2 | 20 | 0 | 0 | 30 | 4 | 1 | 34 | 0 | 4 | 32 | 3 | 7 | 39 | 106 |
| *** BREAK *** | | | | - | - | - | | | | | | - | | | | | | - | | | | | - | - | - |
| 4:00 PM | 0 | 2 | 3 | 3 | 0 | 8 | 0 | 0 | 2 | 2 | 1 | 7 | 0 | 1 | 7 | 0 | 1 | 8 | 0 | 2 | 18 | 0 | 1 | 20 | 43 |
| 4:15 PM | 0 | 3 | 7 | 0 | 0 | 10 | 0 | 3 | 9 | 4 | 0 | 13 | 0 | 0 | 13 | 1 | 0 | 14 | 0 | 2 | 17 | 0 | 1 | 19 | 56 |
| 4:30 PM | 0 | 3 | 3 | 1 | 0 | 7 | 0 | 0 | 4 | 1 | 2 | 5 | 0 | 0 | 12 | 1 | 0 | 13 | 0 | 2 | 17 | 2 | 0 | 21 | 46 |
| 4:45 PM | 0 | 2 | 3 | 0 | 0 | 5 | 0 | 2 | 2 | 2 | 0 | 12 | 0 | 0 | 16 | 2 | 0 | 18 | 0 | 2 | 10 | 3 | 0 | 15 | 50 |
| Hourly Total | 0 | 10 | 16 | 4 | 0 | 30 | 0 | 5 | 20 | 12 | 3 | 37 | 0 | 1 | 48 | 4 | _ | 53 | 0 | 8 | 62 | 5 | 2 | 75 | 195 |
| 5:00 PM | 0 | 0 | 2 | 0 | _ | 2 | 0 | 0 | 5 | 3 | 0 | 8 | 0 | _ | 9 | _ | 0 | 80 | 0 | 9 | 11 | 0 | 2 | 17 | 35 |
| 5:15 PM | 0 | 0 | - | 0 | _ | - | 0 | 2 | 2 | 2 | 0 | 9 | 0 | _ | 13 | 0 | 0 | 14 | 0 | 2 | 14 | 3 | _ | 22 | 43 |
| 5:30 PM | 0 | က | 0 | 0 | 0 | 3 | 0 | - | 3 | 0 | 2 | 4 | 0 | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 20 | 0 | 0 | 20 | 44 |
| 5:45 PM | 0 | 2 | 0 | 2 | 0 | 4 | 0 | 0 | 9 | 3 | 0 | 6 | 0 | 0 | 9 | 3 | 0 | 6 | 0 | - | 6 | 0 | 2 | 10 | 32 |
| Hourly Total | 0 | 2 | 3 | 2 | 2 | 10 | 0 | 3 | 16 | 8 | 2 | 27 | 0 | 2 | 42 | 4 | 0 | 48 | 0 | 12 | 54 | 3 | 5 | 69 | 154 |
| Grand Total | 0 | 20 | 34 | 8 | 7 | 62 | 0 | 11 | 29 | 30 | 11 | 100 | 0 | 5 | 138 | 15 | 5 | 158 | 0 | 33 | 189 | 11 | 25 | 233 | 553 |
| Approach % | 0.0 | 32.3 | 54.8 | 12.9 | 1 | - | 0.0 | 11.0 | 29.0 | 30.0 | | | 0.0 | 3.2 | 87.3 | 9.5 | | | 0.0 | 14.2 | 81.1 | 4.7 | 1 | | |
| Total % | 0.0 | 3.6 | 6.1 | 1.4 | | 11.2 | 0.0 | 2.0 | 10.7 | 5.4 | | 18.1 | 0.0 | 6.0 | 25.0 | 2.7 | | 28.6 | 0.0 | 0.9 | 34.2 | 2.0 | | 42.1 | |
| Lights | 0 | 19 | 25 | 9 | | 20 | 0 | 7 | 48 | 26 | , | 81 | 0 | 4 | 137 | 14 | , | 155 | 0 | 29 | 188 | 10 | , | 227 | 513 |
| % Lights | | 95.0 | 73.5 | 75.0 | - | 80.6 | | 63.6 | 81.4 | 86.7 | | 81.0 | | 80.0 | 99.3 | 93.3 | | 98.1 | | 87.9 | 99.5 | 6.06 | - | 97.4 | 92.8 |
| Buses | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | , | 0 | 0 | 0 | 0 | 0 | | 0 | 0 |
| % Buses | | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | 0.0 | , | 0.0 | | 0.0 | 0.0 | 0.0 | , | 0.0 | | 0.0 | 0.0 | 0.0 | , | 0.0 | 0.0 |
| Single-Unit Trucks | 0 | 0 | 0 | 0 | , | 0 | 0 | 2 | 0 | - | | 3 | 0 | 0 | _ | - | | 2 | 0 | 0 | - | 0 | 1 | - | 9 |
| % Single-Unit Trucks | | 0.0 | 0:0 | 0.0 | | 0.0 | | 18.2 | 0:0 | 3.3 | | 3.0 | | 0:0 | 0.7 | 2.9 | | 1.3 | | 0.0 | 0.5 | 0.0 | | 6.4 | 1. |
| Articulated Trucks | 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 | | 20.0 | 0.0 | 0.0 | | 9.0 | | 0.0 | 0.0 | 0.0 | | 0:0 | 0.2 |
| Bicycles on Road | 0 | 1 | 6 | 2 | | 12 | 0 | 2 | 11 | 3 | | 16 | 0 | 0 | 0 | 0 | | 0 | 0 | 4 | 0 | - | | 5 | 33 |

| sicycles on Road | , | 5.0 | 26.5 | 25.0 | | 19.4 | 18.2 | 18.6 | 10.0 | | 16.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 12.1 | 0.0 | 9.1 | | 2.1 | 0.9 |
|---------------------|---|-----|------|------|-------|------|------|------|------|-------|------|-----|-----|-----|-------|-----|------|-----|-----|-------|-----|-----|
| edestrians | | | | | 7 | | | | | 11 | | | | | 5 | | | | | 25 | | |
| % Pedestrians | | | | | 100.0 | | | | | 100.0 | | | | | 100.0 | | | | | 100.0 | | |



Count Name: Elm Street with Kenicott Avenue Site Code: Start Date: 06/17/2021 Page No: 3

Turning Movement Peak Hour Data (8:00 AM)

| • | | | | | | • | | 5 | | | ב | קמא | מוויול טייט שמש ויטמו לאפר ויטט אואון | שום | | <u> </u> | | | | | | | | , | |
|-------------------------|-------|-------|-------|------------|-------|---------------|--------|-------|------------|-------|-------|---------------|---------------------------------------|-------|------------------|----------|-------|---------------|--------|-------|------------------|-------|-------|------------|------------|
| | | | EIM | Elm Street | | | | | Elm Streel | treet | | | | | Kennicott Avenue | Avenue | | | | _ | Kennicott Avenue | wenue | | | |
| | | | East | Eastbound | | | | | Westbound | puno | | | | | Northbound | pund | | | | | Southbound | pun | | | |
| Start Time | U-Tum | 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 |
| 8:00 AM | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 3 | 1 | 0 | 4 | 0 | 0 | 9 | 2 | 0 | 8 | 0 | 2 | 8 | 0 | 1 | 10 | 23 |
| 8:15 AM | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 10 | 1 | 0 | 11 | 0 | 1 | 11 | 0 | 0 | 12 | 31 |
| 8:30 AM | 0 | 1 | 2 | 0 | 1 | 3 | 0 | 0 | 3 | 2 | 1 | 5 | 0 | 0 | 8 | 1 | 1 | 6 | 0 | 0 | 9 | 0 | 4 | 9 | 23 |
| 8:45 AM | 0 | 1 | 4 | 2 | 0 | 7 | 0 | 0 | 2 | 3 | 1 | 5 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 1 | 7 | 3 | 2 | 11 | 29 |
| Total | 0 | 2 | 6 | 2 | 1 | 13 | 0 | 0 | 14 | 9 | 2 | 20 | 0 | 0 | 30 | 4 | 1 | 34 | 0 | 4 | 32 | 3 | 7 | 39 | 106 |
| Approach % | 0.0 | 15.4 | 69.2 | 15.4 | | | 0.0 | 0.0 | 70.0 | 30.0 | | | 0.0 | 0.0 | 88.2 | 11.8 | - | | 0.0 | 10.3 | 82.1 | 7.7 | - | - | |
| Total % | 0.0 | 1.9 | 8.5 | 1.9 | | 12.3 | 0.0 | 0.0 | 13.2 | 2.7 | | 18.9 | 0.0 | 0.0 | 28.3 | 3.8 | - | 32.1 | 0.0 | 3.8 | 30.2 | 2.8 | - | 36.8 | |
| PHF | 0.000 | 0.500 | 0.563 | 0.250 | | 0.464 | 0.000 | 0.000 | 0.583 | 0.500 | | 0.833 | 0.000 | 0.000 | 0.750 | 0.500 | | 0.773 | 0.000 | 0.500 | 0.727 | 0.250 | | 0.813 | 0.855 |
| Lights | 0 | 2 | 7 | 2 | - | 11 | 0 | 0 | 12 | 2 | | 17 | 0 | 0 | 30 | 3 | - | 33 | 0 | 3 | 31 | 3 | - | 37 | 98 |
| % Lights | • | 100.0 | 77.8 | 100.0 | | 84.6 | | - | 85.7 | 83.3 | | 85.0 | | | 100.0 | 75.0 | - | 97.1 | | 75.0 | 6.96 | 100.0 | | 94.9 | 92.5 |
| Buses | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | | 0 | 0 |
| % Buses | | 0.0 | 0.0 | 0.0 | | 0.0 | | | 0.0 | 0.0 | , | 0.0 | | | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Single-Unit Trucks | 0 | 0 | 0 | 0 | ٠ | 0 | 0 | 0 | 0 | - | , | - | 0 | 0 | 0 | - | | - | 0 | 0 | - | 0 | | - | 3 |
| % Single-Unit Trucks | • | 0.0 | 0.0 | 0.0 | | 0.0 | | | 0.0 | 16.7 | | 5.0 | | | 0.0 | 25.0 | - | 2.9 | | 0.0 | 3.1 | 0.0 | | 5.6 | 2.8 |
| 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 | ٠ | 0.0 | 0.0 | 0.0 | , | 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 | 2 | 0 | - | 2 | 0 | 0 | 2 | 0 | | 2 | 0 | 0 | 0 | 0 | | 0 | 0 | _ | 0 | 0 | | - | 5 |
| % Bicycles on Road | | 0.0 | 22.2 | 0.0 | | 15.4 | | | 14.3 | 0.0 | , | 10.0 | | | 0.0 | 0.0 | | 0.0 | | 25.0 | 0.0 | 0.0 | | 5.6 | 4.7 |
| Pedestrians | ٠ | | | | _ | | | | | | 2 | | | | | | _ | | | | | | 7 | | |
| % Pedestrians | ٠ | | ٠ | | 100.0 | - | | | | | 100.0 | | | | - | - | 100.0 | - | - | | - | - | 100.0 | - | |

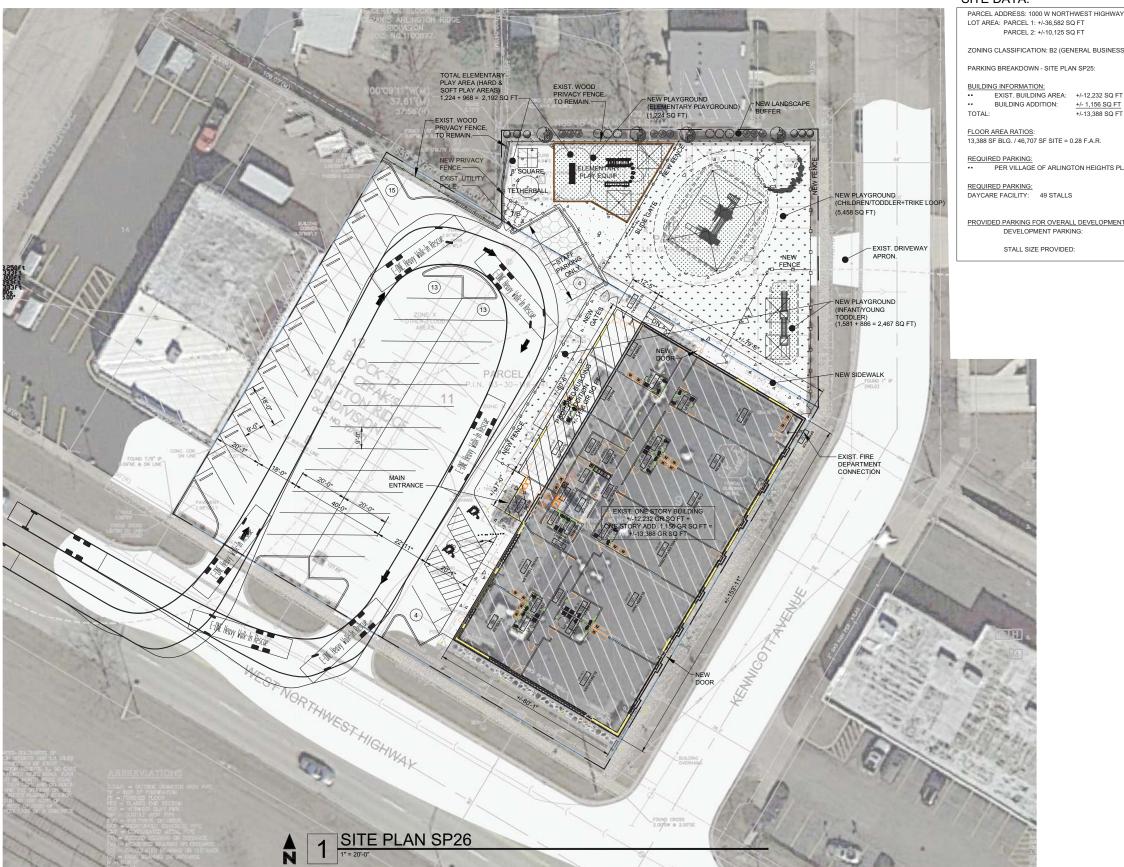


Count Name: Elm Street with Kenicott Avenue Site Code: Start Date: 06/17/2021 Page No: 4

Turning Movement Peak Hour Data (4:45 PM)

| • | | | | | | • | | 5 | | | ב ב | ממק | מוויון ד המה ווטטו שמה (4.40 ד ואו) | י מום | 7 | ĺ | | • | | | | | | ٠ | |
|-------------------------|--------|-------|-------|------------|-------|---------------|--------|-------|------------|-------|-------|---------------|-------------------------------------|-------|------------------|--------|------|---------------|--------|-------|------------------|--------|-------|---------------|------------|
| | | | Elm | Elm Street | | | | | Elm Streel | treet | | | | | Kennicott Avenue | Avenue | | | | 1 | Kennicott Avenue | Avenue | | - | |
| | | | East | Eastbound | | | | | Westbound | puno | | | | | Northbound | punc | | | | | Southbound | punc | | | |
| 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 |
| 4:45 PM | 0 | 2 | 3 | 0 | 0 | 5 | 0 | 2 | 2 | 5 | 0 | 12 | 0 | 0 | 16 | 2 | 0 | 18 | 0 | 2 | 10 | 3 | 0 | 15 | 50 |
| 5:00 PM | 0 | 0 | 2 | 0 | 1 | 2 | 0 | 0 | 2 | 3 | 0 | 8 | 0 | 1 | 9 | 1 | 0 | 8 | 0 | 9 | 11 | 0 | 2 | 17 | 35 |
| 5:15 PM | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 2 | 2 | 2 | 0 | 9 | 0 | 1 | 13 | 0 | 0 | 14 | 0 | 2 | 14 | 3 | 1 | 22 | 43 |
| 5:30 PM | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 1 | 3 | 0 | 2 | 4 | 0 | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 20 | 0 | 0 | 20 | 44 |
| Total | 0 | 5 | 9 | 0 | 2 | 11 | 0 | 5 | 15 | 10 | 2 | 30 | 0 | 2 | 52 | 3 | 0 | 22 | 0 | 13 | 55 | 9 | 3 | 74 | 172 |
| Approach % | 0.0 | 45.5 | 54.5 | 0.0 | | | 0.0 | 16.7 | 20.0 | 33.3 | | | 0.0 | 3.5 | 91.2 | 5.3 | | | 0.0 | 17.6 | 74.3 | 8.1 | - | - | |
| Total % | 0.0 | 2.9 | 3.5 | 0.0 | | 6.4 | 0.0 | 2.9 | 8.7 | 5.8 | | 17.4 | 0.0 | 1.2 | 30.2 | 1.7 | | 33.1 | 0.0 | 9.2 | 32.0 | 3.5 | - | 43.0 | |
| PHF | 0.000 | 0.417 | 0.500 | 0.000 | | 0.550 | 0.000 | 0.625 | 0.750 | 0.500 | | 0.625 | 0.000 | 0.500 | 0.765 | 0.375 | | 0.792 | 0.000 | 0.542 | 0.688 | 0.500 | | 0.841 | 0.860 |
| Lights | 0 | 2 | 2 | 0 | | 10 | 0 | 3 | 11 | 8 | | 22 | 0 | 1 | 52 | 3 | | 26 | 0 | 11 | 22 | 5 | - | 71 | 159 |
| % Lights | | 100.0 | 83.3 | | - | 6.06 | | 0.09 | 73.3 | 80.0 | | 73.3 | | 20.0 | 100.0 | 100.0 | | 98.2 | | 84.6 | 100.0 | 83.3 | - | 95.9 | 92.4 |
| Buses | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | | 0 | 0 |
| % Buses | | 0.0 | 0.0 | | | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | 0.0 | , | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Single-Unit Trucks | 0 | 0 | 0 | 0 | | 0 | 0 | - | 0 | 0 | , | - | 0 | 0 | 0 | 0 | , | 0 | 0 | 0 | 0 | 0 | , | 0 | - |
| % Single-Unit Trucks | - | 0.0 | 0.0 | | | 0.0 | | 20.0 | 0.0 | 0.0 | | 3.3 | | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | 9.0 |
| Articulated Trucks | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 1 | 0 | 0 | - | - | 0 | 0 | 0 | 0 | - | 0 | - |
| % Articulated Trucks | - | 0.0 | 0.0 | | | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | 90.09 | 0.0 | 0.0 | | 1.8 | | 0.0 | 0.0 | 0.0 | - | 0:0 | 9.0 |
| Bicycles on Road | 0 | 0 | - | 0 | - | - | 0 | - | 4 | 2 | | 7 | 0 | 0 | 0 | 0 | - | 0 | 0 | 2 | 0 | - | | 3 | 11 |
| % Bicycles on Road | | 0.0 | 16.7 | | , | 9.1 | | 20.0 | 26.7 | 20.0 | | 23.3 | | 0.0 | 0.0 | 0.0 | , | 0.0 | | 15.4 | 0.0 | 16.7 | | 4.1 | 6.4 |
| Pedestrians | | | | | 2 | | | | | | 2 | | | | | | 0 | | | | | | 3 | | |
| % Pedestrians | | ٠ | | , | 100.0 | | | | | | 100.0 | | | | | | , | | | | - | | 100.0 | - | |

Site Plan



SITE DATA:

PARCEL ADDRESS: 1000 W NORTHWEST HIGHWAY, ARLINGTON HEIGHTS IL

ZONING CLASSIFICATION: B2 (GENERAL BUSINESS DISTRICT)

PARKING BREAKDOWN - SITE PLAN SP25:

BUILDING ADDITION: <u>+/- 1,156 SQ FT</u> -: +/-13,388 SQ FT

PER VILLAGE OF ARLINGTON HEIGHTS PLAN COMMISSION/STAFF COMMENTS: 49 STALLS

PROVIDED PARKING FOR OVERALL DEVELOPMENT:

49 STALLS (INCLUDES 2 ADA ACCESSIBLE STALLS) BUILDING REMODEL

Architecture

105 Schelter Road Lincolnshire Illinois 60069

ILLINOIS DESIGN FIRM # 184003287

9440 ENTERPRISE DRIVE MOKENA, IL 60448

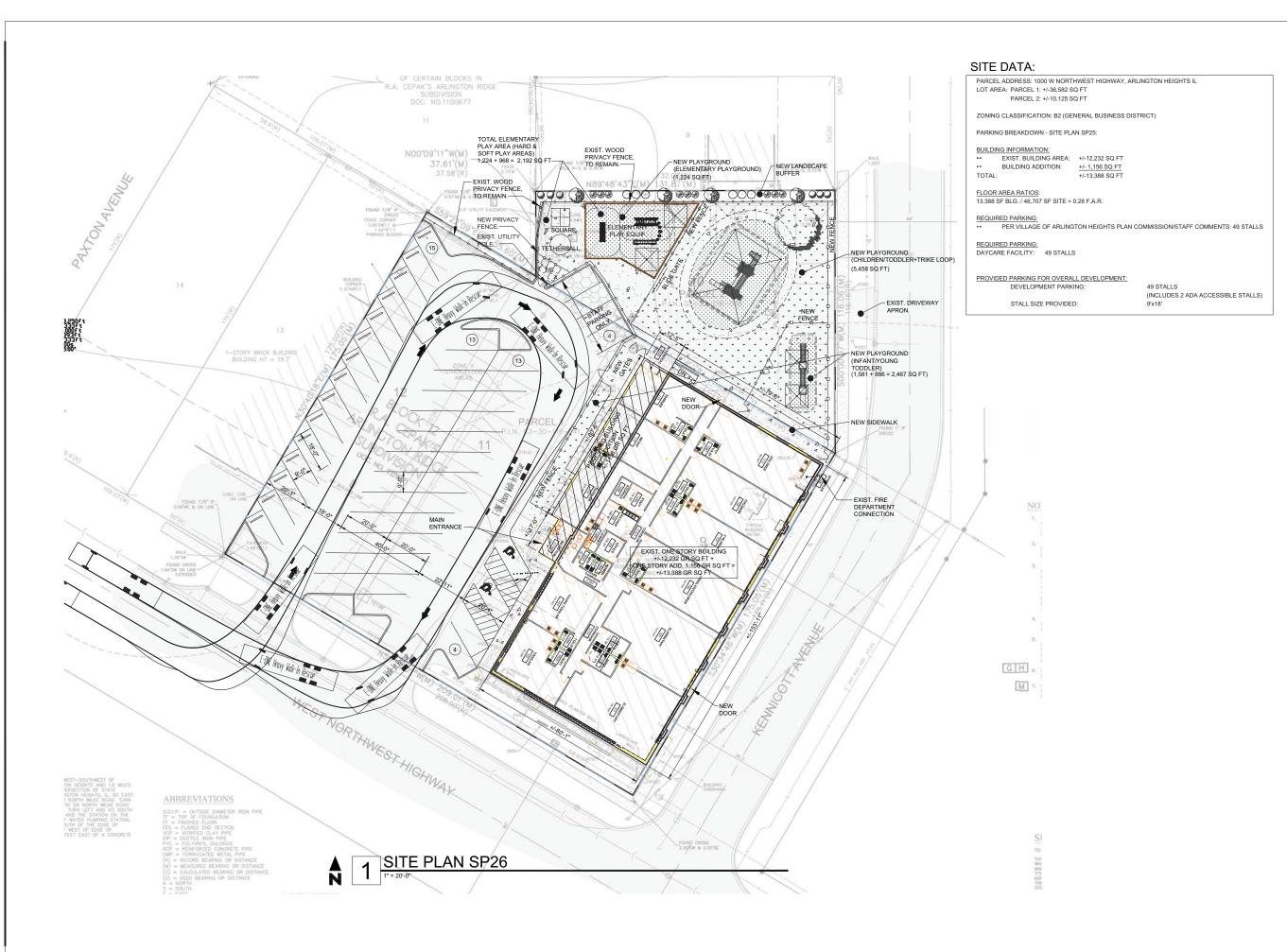
1000 W NORTHWEST HWY ARLINGTON HTS., IL 60004

BUILDING ADDITION 2021-08-1 2021-04-20 CLIENT REVIEW CLIENT REVIEW No. Issue

SCHEMATIC DESIGN

| Date | February 20, 2021 |
|------------|-------------------|
| Job Number | 21-009 LF |
| Drawn | SOOS |
| Checked | SOOS |
| Approved | SOOS |
| | |

SITE PLAN



IASOOSOCIATES

Soos & Associates, Inc. Architecture

1 0 5 Schelter Road Lincolnshire Illinois 6 0 0 6 9 phone: 847 821 7667 fax: 847 821 8570

THESE DRAWINGS AND SPECIFICATIONS ARE THE CONFIDENTIAL AND PROPRIETARY PROPERTY OF SOOS & ASSOLATES, INC. AND SHALL NOT ECOPED OR REPRODUCED WITHOUT WHITTEN AUTHORIZATION, THE CONTRACT CONJUNCTION WHITE TO SUSK CONTRACTOR SHE ON CONJUNCTION WHITH IS SUSKE DATE AND AND OF SUITERE FOR USES ON ERFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF SOOS & ASSOCIATES, INC. REPRODUCTION OF THE CONTRACT DOCUMENTS FOR REUSE ON ANOTHER PROJECT IS NOT AUTHORIZED.

ILLINOIS DESIGN FIRM # 184003287

LFI 9440 ENTERPRISE DRIVE MOKENA, IL 60448

Client

BUILDING REMODEL

1000 W NORTHWEST HWY ARLINGTON HTS., IL 60004

Project

| Consulta | nt | |
|----------|----------------------------------|------------|
| | | |
| | PARKING & PLAY AREA UPDATES | 2022-01-04 |
| | VAH COMMISSION SUBMITTAL | 2021-10-13 |
| | HGE ADD'L REVISIONS | 2021-09-02 |
| | HGE LABELING REVISIONS | 2021-08-19 |
| | BUILDING ADDITION | 2021-08-11 |
| | ADD EXIT DOORS | 2021-07-13 |
| | ADD PARKING STALLS | 2021-07-02 |
| | CONCEPTUAL PLAN REVIEW COMMITTEE | 2021-06-09 |
| | CURSORY REVIEW | 2021-05-06 |
| | CLIENT REVIEW | 2021-04-20 |
| | CLIENT REVIEW | 2021-04-09 |
| No. | Issue | Date |

Seal

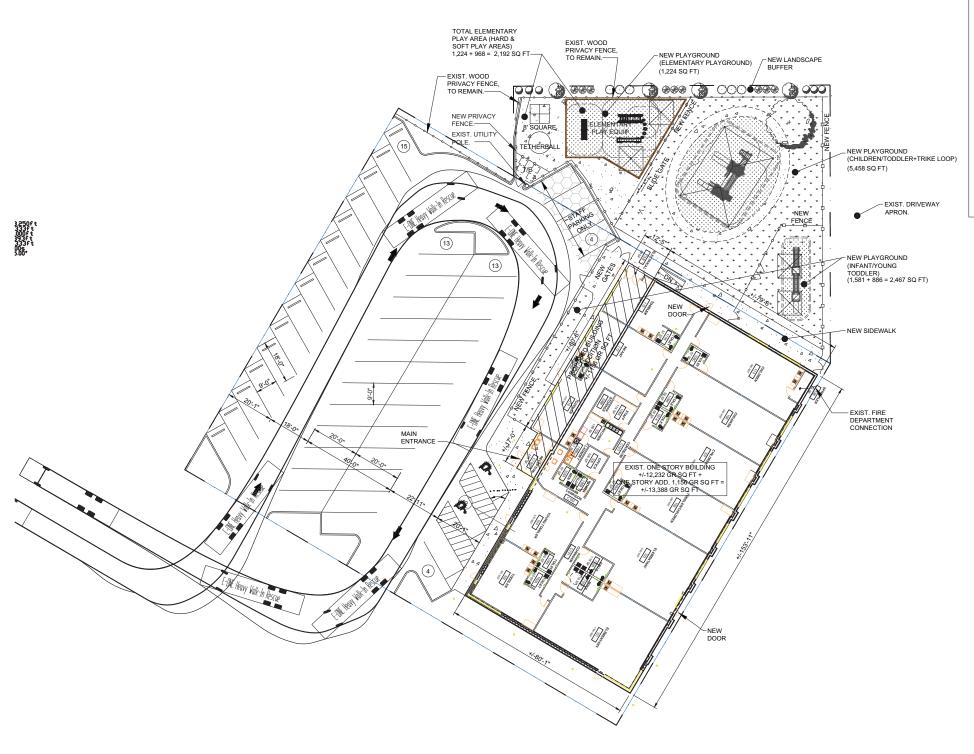
SCHEMATIC DESIGN

| Date | February 20, 2021 |
|------------|-------------------|
| Job Number | 21-009 LF |
| Drawn | SOOS |
| Checked | SOOS |
| Approved | SOOS |
| Titlo | |

SITE PLAN

She

A1



SITE DATA:

PARCEL ADDRESS: 1000 W NORTHWEST HIGHWAY, ARLINGTON HEIGHTS IL

LOT AREA: PARCEL 1: +/-36.582 SQ FT PARCEL 2: +/-10,125 SQ FT

ZONING CLASSIFICATION: B2 (GENERAL BUSINESS DISTRICT)

PARKING BREAKDOWN - SITE PLAN SP25:

BUILDING INFORMATION:
•• EXIST. BUILDING AREA: +/-12,232 SQ FT

+/- 1,156 SQ FT +/-13,388 SQ FT BUILDING ADDITION: TOTAL:

FLOOR AREA RATIOS: 13,388 SF BLG. / 46,707 SF SITE = 0.28 F.A.R.

PER VILLAGE OF ARLINGTON HEIGHTS PLAN COMMISSION/STAFF COMMENTS: 49 STALLS

DAYCARE FACILITY: 49 STALLS

PROVIDED PARKING FOR OVERALL DEVELOPMENT:

49 STALLS (INCLUDES 2 ADA ACCESSIBLE STALLS)

STALL SIZE PROVIDED:

Architecture 105 Schelter Road Lincolnshire Illinois 60069

phone: 847 821 7667

ILLINOIS DESIGN FIRM # 184003287

9440 ENTERPRISE DRIVE MOKENA, IL 60448

BUILDING REMODEL

1000 W NORTHWEST HWY ARLINGTON HTS., IL 60004

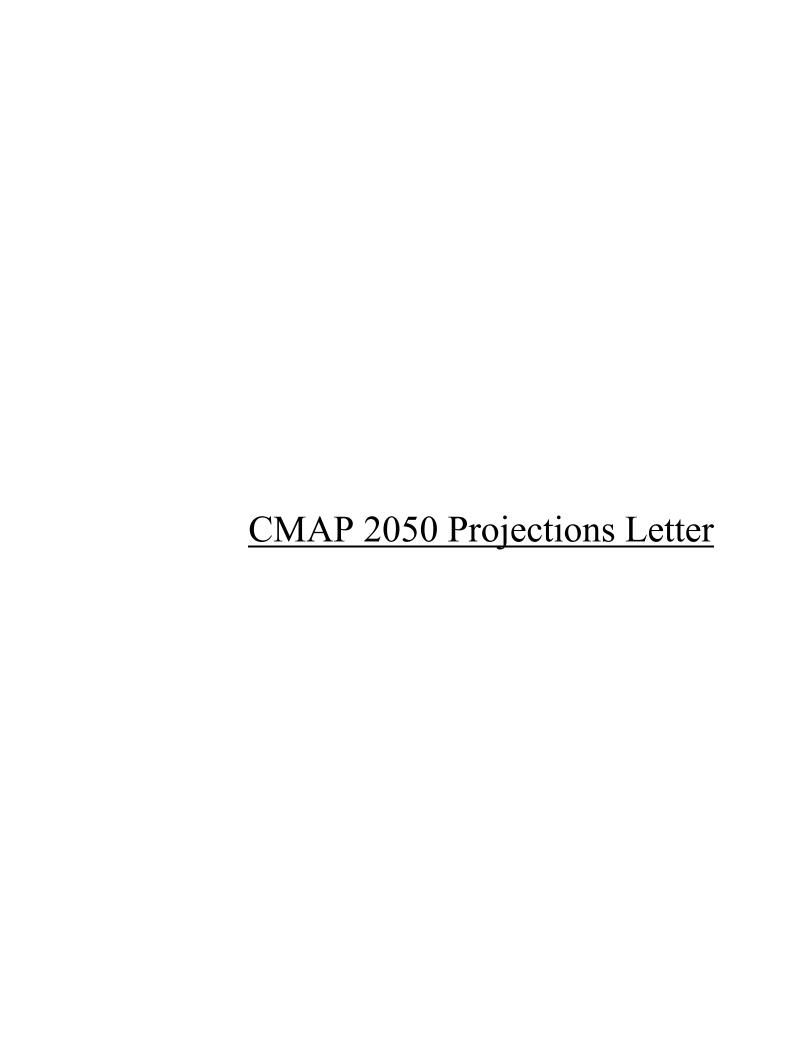
Consultant PARKING & PLAY AREA UPDATES HGE ADD'L REVISIONS HGE LABELING REVISIONS 2021-08-1 BUILDING ADDITION ADD PARKING STALLS CONCEPTUAL PLAN REVIEW COMMITTEE CLIENT REVIEW 2021-04-20 CLIENT REVIEW 2021-04-09 No. Issue

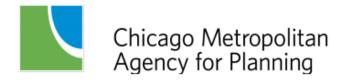
SCHEMATIC DESIGN

| Date | February 20, 2021 |
|------------|-------------------|
| Job Number | 21-009 LF |
| Drawn | SOOS |
| Checked | SOOS |
| Approved | SOOS |
| Title | |

SITE PLAN

SITE PLAN SP26





433 West Van Buren Street Suite 450 Chicago, IL 60607

> 312-454-0400 cmap.illinois.gov

July 21, 2021

Brendan S. May Senior Consultant Kenig, Lindgren, O'Hara and Aboona, Inc. 9575 West Higgins Road Suite 400 Rosemont, IL 60018

Subject: Northwest Highway (US 14) north of Euclid Avenue

IDOT

Dear Mr. May:

In response to a request made on your behalf and dated July 21, 2021, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

| ROAD SEGMENT | Current ADT | Year 2050 ADT |
|----------------------------------------|-------------|---------------|
| NW Highway (US 14) north of Euclid Ave | 15,800 | 18,900 |

Traffic projections are developed using existing ADT data provided in the request letter and the results from the June 2021 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2050 socioeconomic projections and assumes the implementation of the ON TO 2050 Comprehensive Regional Plan for the Northeastern Illinois area. The provision of this data in support of your request does not constitute a CMAP endorsement of the proposed development or any subsequent developments.

If you have any questions, please call me at (312) 386-8806.

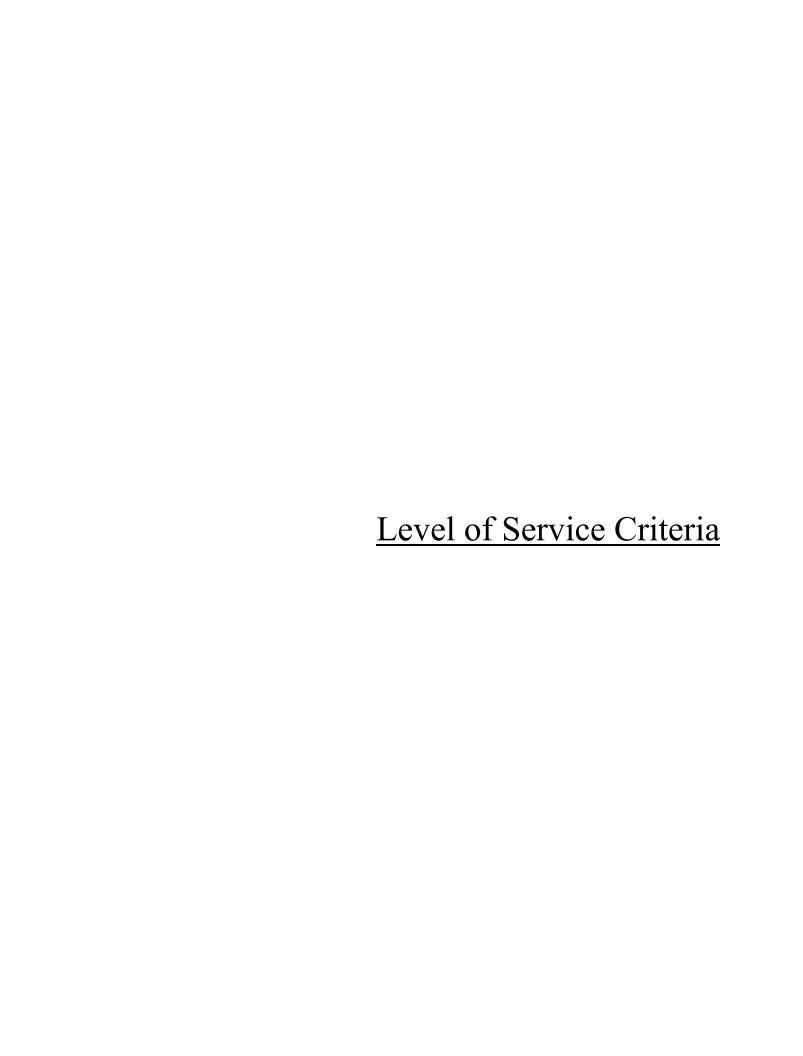
Sincerely,

Jose Rodriguez, PTP, AICP

Senior Planner, Research & Analysis

cc: Rios (IDOT)

2021_CY_TrafficForecast\ArlingtonHeights\ck-89-21\ck-89-21.docx



LEVEL OF SERVICE CRITERIA

| LEVEL OF SI | ERVICE CRITERIA Signalized Intersections | |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| Level of Service | Interpretation | Average Control Delay (seconds per vehicle) |
| A | Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping. | ≤10 |
| 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 |
| | Unsignalized Intersections | |
| | Level of Service Average Total De | lay (SEC/VEH) |
| | A 0 - | - 10 |
| | B > 10 | - 15 |
| | C > 15 | - 25 |
| | D > 25 | - 35 |
| | E > 35 | - 50 |
| | F > 5 | 0 |
| Source: Highwa | ny Capacity Manual, 2010. | |

Capacity Analysis Summary Sheets
Existing Weekday Morning Peak Hour

| ersection | |
|------------------------|-----|
| | 7.2 |
| ersection Delay, s/veh | 7.3 |
| ersection LOS | Α |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | ₩ | | | 4 | | | 4 | | | 4 | |
| Traffic Vol, veh/h | 2 | 9 | 2 | 0 | 14 | 6 | 0 | 45 | 4 | 4 | 48 | 3 |
| Future Vol, veh/h | 2 | 9 | 2 | 0 | 14 | 6 | 0 | 45 | 4 | 4 | 48 | 3 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 0 | 3 | 0 |
| Mvmt Flow | 2 | 11 | 2 | 0 | 16 | 7 | 0 | 53 | 5 | 5 | 56 | 4 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Approach | EB | | | | WB | | | NB | | SB | | |
| Opposing Approach | WB | | | | EB | | | SB | | NB | | |
| Opposing Lanes | 1 | | | | 1 | | | 1 | | 1 | | |
| Conflicting Approach Left | SB | | | | NB | | | EB | | WB | | |
| Conflicting Lanes Left | 1 | | | | 1 | | | 1 | | 1 | | |
| Conflicting Approach Right | NB | | | | SB | | | WB | | EB | | |
| Conflicting Lanes Right | 1 | | | | 1 | | | 1 | | 1 | | |
| HCM Control Delay | 7.2 | | | | 7.1 | | | 7.3 | | 7.3 | | |
| HCM LOS | Α | | | | Α | | | Α | | Α | | |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 | |
|------------------------|-------|-------|-------|-------|--|
| Vol Left, % | 0% | 15% | 0% | 7% | |
| Vol Thru, % | 92% | 69% | 70% | 87% | |
| Vol Right, % | 8% | 15% | 30% | 5% | |
| Sign Control | Stop | Stop | Stop | Stop | |
| Traffic Vol by Lane | 49 | 13 | 20 | 55 | |
| LT Vol | 0 | 2 | 0 | 4 | |
| Through Vol | 45 | 9 | 14 | 48 | |
| RT Vol | 4 | 2 | 6 | 3 | |
| Lane Flow Rate | 58 | 15 | 24 | 65 | |
| Geometry Grp | 1 | 1 | 1 | 1 | |
| Degree of Util (X) | 0.064 | 0.017 | 0.026 | 0.072 | |
| Departure Headway (Hd) | 3.969 | 4.068 | 3.944 | 3.993 | |
| Convergence, Y/N | Yes | Yes | Yes | Yes | |
| Cap | 902 | 873 | 901 | 896 | |
| Service Time | 1.996 | 2.125 | 1.998 | 2.02 | |
| HCM Lane V/C Ratio | 0.064 | 0.017 | 0.027 | 0.073 | |
| HCM Control Delay | 7.3 | 7.2 | 7.1 | 7.3 | |
| HCM Lane LOS | Α | Α | Α | Α | |
| HCM 95th-tile Q | 0.2 | 0.1 | 0.1 | 0.2 | |

| Intersection | | | | | | |
|------------------------|--------|-------|----------|------|--------|-------|
| Int Delay, s/veh | 1.2 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | 414 | ^ | 7 | ¥ | |
| Traffic Vol, veh/h | 24 | 629 | 516 | 32 | 45 | 12 |
| Future Vol, veh/h | 24 | 629 | 516 | 32 | 45 | 12 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 155 | 0 | - |
| Veh in Median Storage, | ,# - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 5 | 4 | 5 | 3 | 0 |
| Mvmt Flow | 26 | 684 | 561 | 35 | 49 | 13 |
| | | | | | | |
| Major/Minor N | Najor1 | N | Major2 | N | Minor2 | |
| Conflicting Flow All | 596 | 0 | | 0 | 955 | 281 |
| Stage 1 | - | - | - | - | 561 | - |
| Stage 2 | - | - | - | - | 394 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.86 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.86 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.86 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.53 | 3.3 |
| Pot Cap-1 Maneuver | 990 | - | - | - | 255 | 722 |
| Stage 1 | - | - | - | - | 532 | - |
| Stage 2 | - | - | - | - | 647 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 990 | - | - | - | 244 | 722 |
| Mov Cap-2 Maneuver | - | - | - | - | 244 | - |
| Stage 1 | - | - | - | - | 510 | - |
| Stage 2 | - | - | - | - | 647 | - |
| | | | | | | |
| Approach | EB | | WB | | SB | |
| HCM Control Delay, s | 0.5 | | 0 | | 21.2 | |
| HCM LOS | 0.0 | | U | | C | |
| 110111 200 | | | | | | |
| N. 61 | | EDI | FDT | MOT | MES | ODL 4 |
| Minor Lane/Major Mvmt | t | EBL | EBT | WBT | WBR: | |
| Capacity (veh/h) | | 990 | - | - | - | 284 |
| HCM Lane V/C Ratio | | 0.026 | - | - | - | 0.218 |
| HCM Control Delay (s) | | 8.7 | 0.2 | - | - | 21.2 |
| HCM Lane LOS | | Α | Α | - | - | С |

8.0

HCM 95th %tile Q(veh)

Capacity Analysis Summary Sheets
Existing Weekday Evening Peak Hour

| Intersection | |
|---------------------------|-----|
| Intersection Delay, s/veh | 8.1 |
| Intersection LOS | А |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | 4 | | | 4 | | | 4 | | | 4 | |
| Traffic Vol, veh/h | 5 | 6 | 0 | 5 | 15 | 10 | 2 | 78 | 3 | 13 | 83 | 6 |
| Future Vol, veh/h | 5 | 6 | 0 | 5 | 15 | 10 | 2 | 78 | 3 | 13 | 83 | 6 |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Heavy Vehicles, % | 0 | 0 | 0 | 20 | 0 | 0 | 50 | 0 | 0 | 0 | 0 | 2 |
| Mvmt Flow | 6 | 7 | 0 | 6 | 17 | 12 | 2 | 91 | 3 | 15 | 97 | 7 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Approach | EB | | | WB | | | NB | | | SB | | |
| Opposing Approach | WB | | | EB | | | SB | | | NB | | |
| Opposing Lanes | 1 | | | 1 | | | 1 | | | 1 | | |
| Conflicting Approach Left | SB | | | NB | | | EB | | | WB | | |
| Conflicting Lanes Left | 1 | | | 1 | | | 1 | | | 1 | | |
| Conflicting Approach Right | NB | | | SB | | | WB | | | EB | | |
| Conflicting Lanes Right | 1 | | | 1 | | | 1 | | | 1 | | |
| HCM Control Delay | 7.6 | | | 7.8 | | | 8.7 | | | 7.8 | | |
| HCM LOS | Α | | | Α | | | Α | | | Α | | |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 | |
|------------------------|-------|-------|-------|-------|--|
| Vol Left, % | 2% | 45% | 17% | 13% | |
| Vol Thru, % | 94% | 55% | 50% | 81% | |
| Vol Right, % | 4% | 0% | 33% | 6% | |
| Sign Control | Stop | Stop | Stop | Stop | |
| Traffic Vol by Lane | 83 | 11 | 30 | 102 | |
| LT Vol | 2 | 5 | 5 | 13 | |
| Through Vol | 78 | 6 | 15 | 83 | |
| RT Vol | 3 | 0 | 10 | 6 | |
| Lane Flow Rate | 97 | 13 | 35 | 119 | |
| Geometry Grp | 1 | 1 | 1 | 1 | |
| Degree of Util (X) | 0.132 | 0.016 | 0.045 | 0.133 | |
| Departure Headway (Hd) | 4.906 | 4.54 | 4.597 | 4.045 | |
| Convergence, Y/N | Yes | Yes | Yes | Yes | |
| Cap | 726 | 793 | 783 | 875 | |
| Service Time | 2.968 | 2.542 | 2.597 | 2.123 | |
| HCM Lane V/C Ratio | 0.134 | 0.016 | 0.045 | 0.136 | |
| HCM Control Delay | 8.7 | 7.6 | 7.8 | 7.8 | |
| HCM Lane LOS | А | Α | Α | Α | |
| HCM 95th-tile Q | 0.5 | 0 | 0.1 | 0.5 | |

| Intersection | | | | | | |
|-----------------------------------------------------------|-------|----------------------|----------|--------|--------|-------------|
| Int Delay, s/veh | 4.4 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | LUL | 41 | ^ | 7 | ¥ | OBIN |
| Traffic Vol, veh/h | 17 | 669 | 908 | 75 | 65 | 27 |
| Future Vol, veh/h | 17 | 669 | 908 | 75 | 65 | 27 |
| Conflicting Peds, #/hr | 0 | 009 | 0 | 0 | 03 | 0 |
| | Free | Free | Free | Free | Stop | Stop |
| | | | | | • | |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 155 | 0 | - |
| Veh in Median Storage, | | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 2 | 3 | 2 | 7 | 6 |
| Mvmt Flow | 19 | 760 | 1032 | 85 | 74 | 31 |
| | | | | | | |
| Major/Minor M | ajor1 | N | /lajor2 | N | Minor2 | |
| | 1117 | 0 | - najoiz | 0 | 1450 | 516 |
| Stage 1 | - | | | | 1032 | 510 |
| | - | - | - | - | | |
| Stage 2 | - | - | - | - | 418 | 7.00 |
| Critical Hdwy | 4.1 | - | - | - | 6.94 | 7.02 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.94 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.94 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.57 | 3.36 |
| Pot Cap-1 Maneuver | 633 | - | - | - | 116 | 494 |
| Stage 1 | - | - | - | - | 293 | - |
| Stage 2 | - | - | - | - | 618 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 633 | - | - | - | 110 | 494 |
| Mov Cap-2 Maneuver | _ | _ | _ | - | 110 | _ |
| Stage 1 | _ | _ | _ | _ | 278 | _ |
| Stage 2 | | _ | | _ | 618 | _ |
| Staye 2 | - | - | - | - | 010 | - |
| | | | | | | |
| Approach | EB | | WB | | SB | |
| HCM Control Delay, s | 0.6 | | 0 | | 79 | |
| HCM LOS | | | | | F | |
| | | | | | | |
| | | EDI | EBT | WBT | WBR : | SBI n1 |
| Minor Lane/Major Mymt | | FBL | FBL | | | OPLIII |
| Minor Lane/Major Mvmt | | EBL | EBI | VVDI | | 1/12 |
| Capacity (veh/h) | | 633 | - | - | - | 143 |
| Capacity (veh/h) HCM Lane V/C Ratio | | 633 0.031 | - | - | - | 0.731 |
| Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s) | | 633 0.031 10.9 | 0.3 | - - | - | 0.731 79 |
| Capacity (veh/h) HCM Lane V/C Ratio | | 633 0.031 | - | - | - | 0.731 |

<u>Capacity Analysis Summary Sheets</u> Year 2027 Total Projected Weekday Morning Peak Hour

| Intersection | | |
|---------------------------|-----|--|
| Intersection Delay, s/veh | 7.3 | |
| Intersection LOS | Α | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | 4 | | | 4 | | | 4 | | | 4 | |
| Traffic Vol, veh/h | 2 | 9 | 3 | 2 | 14 | 6 | 1 | 49 | 5 | 4 | 53 | 3 |
| Future Vol, veh/h | 2 | 9 | 3 | 2 | 14 | 6 | 1 | 49 | 5 | 4 | 53 | 3 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 0 | 3 | 0 |
| Mvmt Flow | 2 | 11 | 4 | 2 | 16 | 7 | 1 | 58 | 6 | 5 | 62 | 4 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Approach | EB | | | WB | | | NB | | | SB | | |
| Opposing Approach | WB | | | EB | | | SB | | | NB | | |
| Opposing Lanes | 1 | | | 1 | | | 1 | | | 1 | | |
| Conflicting Approach Left | SB | | | NB | | | EB | | | WB | | |
| Conflicting Lanes Left | 1 | | | 1 | | | 1 | | | 1 | | |
| Conflicting Approach Right | NB | | | SB | | | WB | | | EB | | |
| Conflicting Lanes Right | 1 | | | 1 | | | 1 | | | 1 | | |
| HCM Control Delay | 7.2 | | | 7.2 | | | 7.3 | | | 7.4 | | |
| HCM LOS | Α | | | Α | | | Α | | | Α | | |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, % | 2% | 14% | 9% | 7% |
| Vol Thru, % | 89% | 64% | 64% | 88% |
| Vol Right, % | 9% | 21% | 27% | 5% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 55 | 14 | 22 | 60 |
| LT Vol | 1 | 2 | 2 | 4 |
| Through Vol | 49 | 9 | 14 | 53 |
| RT Vol | 5 | 3 | 6 | 3 |
| Lane Flow Rate | 65 | 16 | 26 | 71 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.071 | 0.019 | 0.029 | 0.079 |
| Departure Headway (Hd) | 3.977 | 4.055 | 4.002 | 4.007 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 899 | 875 | 887 | 893 |
| Service Time | 2.01 | 2.116 | 2.061 | 2.038 |
| HCM Lane V/C Ratio | 0.072 | 0.018 | 0.029 | 0.08 |
| HCM Control Delay | 7.3 | 7.2 | 7.2 | 7.4 |
| HCM Lane LOS | Α | Α | Α | Α |
| HCM 95th-tile Q | 0.2 | 0.1 | 0.1 | 0.3 |

| Intersection | | | | | | |
|-----------------------------------|--------|-------|----------|----------|--------|------------|
| Int Delay, s/veh | 1.4 | | | | | |
| | | FRT | MET | WED | 051 | 000 |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | 41 | ^ | 7 | N. | |
| Traffic Vol, veh/h | 30 | 681 | 566 | 33 | 46 | 19 |
| Future Vol, veh/h | 30 | 681 | 566 | 33 | 46 | 19 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 155 | 0 | - |
| Veh in Median Storage, | # - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 5 | 4 | 5 | 3 | 0 |
| Mvmt Flow | 33 | 740 | 615 | 36 | 50 | 21 |
| WWW. | 00 | 1 70 | 010 | - 00 | 00 | 4 1 |
| | | | | | | |
| Major/Minor N | 1ajor1 | N | /lajor2 | <u> </u> | Minor2 | |
| Conflicting Flow All | 651 | 0 | - | 0 | 1051 | 308 |
| Stage 1 | - | - | - | - | 615 | - |
| Stage 2 | _ | - | _ | - | 436 | - |
| Critical Hdwy | 4.1 | _ | _ | _ | 6.86 | 6.9 |
| Critical Hdwy Stg 1 | - | | _ | <u>-</u> | 5.86 | - |
| Critical Hdwy Stg 2 | - | _ | _ | <u>-</u> | 5.86 | |
| | 2.2 | | | | | |
| Follow-up Hdwy | | - | - | - | 3.53 | 3.3 |
| Pot Cap-1 Maneuver | 945 | - | - | - | 221 | 694 |
| Stage 1 | - | - | - | - | 499 | - |
| Stage 2 | - | - | - | - | 616 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 945 | - | - | - | 208 | 694 |
| Mov Cap-2 Maneuver | - | - | - | - | 208 | - |
| Stage 1 | - | - | - | - | 470 | - |
| Stage 2 | _ | - | _ | - | 616 | - |
| | | | | | 5.0 | |
| | | | | | | |
| Approach | EB | | WB | | SB | |
| HCM Control Delay, s | 0.6 | | 0 | | 23.7 | |
| HCM LOS | | | | | С | |
| | | | | | | |
| NASS and the second second second | | EDI | EDT | WDT | WDD | 2DL 4 |
| Minor Lane/Major Mvmt | | EBL | EBT | WBT | WBR : | |
| Capacity (veh/h) | | 945 | - | - | - | 262 |
| HCM Lane V/C Ratio | | 0.035 | - | - | - | 0.27 |
| HCM Control Delay (s) | | 8.9 | 0.2 | - | - | |
| HCM Lane LOS | | Α | Α | - | - | С |
| HCM 95th %tile Q(veh) | | 0.1 | - | - | - | 1.1 |
| 222 / 2000 20(7011) | | | | | | |

| Intersection | | | | | | |
|------------------------|-------------|--------------|----------|-------|---------|------|
| | 1 | | | | | |
| Int Delay, s/veh | | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ^ | ^ | | Y | |
| Traffic Vol, veh/h | 0 | 673 | 585 | 0 | 38 | 37 |
| Future Vol, veh/h | 0 | 673 | 585 | 0 | 38 | 37 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | | - | None |
| Storage Length | - | - | _ | - | 0 | - |
| Veh in Median Storage | .# - | 0 | 0 | _ | 0 | _ |
| Grade, % | , <i>''</i> | 0 | 0 | _ | 0 | _ |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 0 | 5 | 4 | 0 | 0 | 0 |
| Mymt Flow | 0 | 708 | 616 | 0 | 40 | 39 |
| IVIVIIIL FIUW | U | 100 | 010 | U | 40 | 39 |
| | | | | | | |
| Major/Minor N | /lajor1 | N | Major2 | | /linor2 | |
| Conflicting Flow All | - | 0 | | 0 | 970 | 308 |
| Stage 1 | - | - | - | - | 616 | - |
| Stage 2 | _ | _ | _ | _ | 354 | _ |
| Critical Hdwy | _ | _ | _ | _ | 6.8 | 6.9 |
| Critical Hdwy Stg 1 | _ | | _ | _ | 5.8 | 0.5 |
| Critical Hdwy Stg 2 | _ | _ | - | - | 5.8 | - |
| | - | - | | | 3.5 | 3.3 |
| Follow-up Hdwy | - | - | - | - | 254 | |
| Pot Cap-1 Maneuver | 0 | - | - | 0 | | 694 |
| Stage 1 | 0 | - | - | 0 | 507 | - |
| Stage 2 | 0 | - | - | 0 | 687 | - |
| Platoon blocked, % | | - | - | | | |
| Mov Cap-1 Maneuver | - | - | - | - | 254 | 694 |
| Mov Cap-2 Maneuver | - | - | - | - | 254 | - |
| Stage 1 | - | - | - | - | 507 | - |
| Stage 2 | - | - | - | - | 687 | - |
| | | | | | | |
| A mara a a la | ED | | \A/D | | CD. | |
| Approach | EB | | WB | | SB | |
| HCM Control Delay, s | 0 | | 0 | | 17.4 | |
| HCM LOS | | | | | С | |
| | | | | | | |
| Minor Lane/Major Mvm | t | EBT | WRT | SBLn1 | | |
| | | LDI | | | | |
| Capacity (veh/h) | | - | - | | | |
| HCM Lane V/C Ratio | | - | | 0.213 | | |
| HCM Control Delay (s) | | - | - | | | |
| HCM Lane LOS | | - | - | С | | |
| HCM 95th %tile Q(veh) | | - | - | 0.8 | | |

| Intersection | 0.1 | | | | | |
|------------------------|-------|-------|-------------|------|----------|-------|
| Int Delay, s/veh | 0.4 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | 414 | † 1> | | W | |
| Traffic Vol, veh/h | 42 | 673 | 580 | 42 | 0 | 0 |
| Future Vol, veh/h | 42 | 673 | 580 | 42 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | | - Olop | None |
| Storage Length | _ | - | _ | - | 0 | - |
| Veh in Median Storage, | | 0 | 0 | | 0 | _ |
| Grade, % | + - | 0 | 0 | - | 0 | - |
| | | | | | | |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 0 | 5 | 4 | 0 | 0 | 2 |
| Mvmt Flow | 44 | 708 | 611 | 44 | 0 | 0 |
| | | | | | | |
| Major/Minor Ma | ajor1 | N | Major2 | N | Minor2 | |
| Conflicting Flow All | 655 | 0 | - | 0 | 1075 | 328 |
| | | | | | | |
| Stage 1 | - | - | - | - | 633 | - |
| Stage 2 | - | - | - | - | 442 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.8 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.8 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.8 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.32 |
| Pot Cap-1 Maneuver | 942 | - | - | - | 218 | 668 |
| Stage 1 | - | - | - | - | 497 | - |
| Stage 2 | - | - | - | - | 621 | - |
| Platoon blocked, % | | _ | _ | _ | | |
| Mov Cap-1 Maneuver | 942 | _ | _ | _ | 201 | 668 |
| Mov Cap-1 Maneuver | | _ | _ | _ | 201 | - |
| | - | - | | | | |
| Stage 1 | - | - | - | - | 459 | - |
| Stage 2 | - | - | - | - | 621 | - |
| | | | | | | |
| Approach | EB | | WB | | SB | |
| HCM Control Delay, s | 0.8 | | 0 | | 0 | |
| HCM LOS | 0.0 | | U | | | |
| HOW LOS | | | | | Α | |
| | | | | | | |
| Minor Lane/Major Mvmt | | EBL | EBT | WBT | WBR S | SBLn1 |
| Capacity (veh/h) | | 942 | | - | _ | |
| HCM Lane V/C Ratio | | 0.047 | - | _ | <u>-</u> | _ |
| HCM Control Delay (s) | | 9 | 0.3 | | _ | 0 |
| HCM Lane LOS | | A | | | | |
| HOM FAME FOS | | А | Α | - | - | Α |
| HCM 95th %tile Q(veh) | | 0.1 | _ | | _ | _ |

<u>Capacity Analysis Summary Sheets</u> Year 2027 Total Projected Weekday Evening Peak Hour

| Intersection | | | |
|---------------------------|---|--|--|
| Intersection Delay, s/veh | 8 | | |
| Intersection LOS | Α | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | 4 | | | 4 | | | 4 | | | 4 | |
| Traffic Vol, veh/h | 5 | 6 | 1 | 7 | 15 | 10 | 3 | 84 | 4 | 13 | 88 | 6 |
| Future Vol, veh/h | 5 | 6 | 1 | 7 | 15 | 10 | 3 | 84 | 4 | 13 | 88 | 6 |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Heavy Vehicles, % | 0 | 0 | 0 | 20 | 0 | 0 | 33 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 6 | 7 | 1 | 8 | 17 | 12 | 3 | 98 | 5 | 15 | 102 | 7 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Approach | EB | | | WB | | | NB | | | SB | | |
| Opposing Approach | WB | | | EB | | | SB | | | NB | | |
| Opposing Lanes | 1 | | | 1 | | | 1 | | | 1 | | |
| Conflicting Approach Left | SB | | | NB | | | EB | | | WB | | |
| Conflicting Lanes Left | 1 | | | 1 | | | 1 | | | 1 | | |
| Conflicting Approach Right | NB | | | SB | | | WB | | | EB | | |
| Conflicting Lanes Right | 1 | | | 1 | | | 1 | | | 1 | | |
| HCM Control Delay | 7.6 | | | 7.9 | | | 8.4 | | | 7.8 | | |
| HCM LOS | Α | | | Α | | | Α | | | Α | | |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 | |
|------------------------|-------|-------|-------|-------|--|
| Vol Left, % | 3% | 42% | 22% | 12% | |
| Vol Thru, % | 92% | 50% | 47% | 82% | |
| Vol Right, % | 4% | 8% | 31% | 6% | |
| Sign Control | Stop | Stop | Stop | Stop | |
| Traffic Vol by Lane | 91 | 12 | 32 | 107 | |
| LT Vol | 3 | 5 | 7 | 13 | |
| Through Vol | 84 | 6 | 15 | 88 | |
| RT Vol | 4 | 1 | 10 | 6 | |
| Lane Flow Rate | 106 | 14 | 37 | 124 | |
| Geometry Grp | 1 | 1 | 1 | 1 | |
| Degree of Util (X) | 0.136 | 0.017 | 0.048 | 0.14 | |
| Departure Headway (Hd) | 4.625 | 4.507 | 4.642 | 4.059 | |
| Convergence, Y/N | Yes | Yes | Yes | Yes | |
| Cap | 769 | 799 | 776 | 872 | |
| Service Time | 2.69 | 2.508 | 2.642 | 2.135 | |
| HCM Lane V/C Ratio | 0.138 | 0.018 | 0.048 | 0.142 | |
| HCM Control Delay | 8.4 | 7.6 | 7.9 | 7.8 | |
| HCM Lane LOS | Α | Α | Α | Α | |
| HCM 95th-tile Q | 0.5 | 0.1 | 0.2 | 0.5 | |

| Intersection | | | | | | |
|------------------------|--------|-------|----------|------|------------|-------|
| Int Delay, s/veh | 7.4 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | 414 | ^ | 7 | ¥ | |
| Traffic Vol, veh/h | 24 | 726 | 967 | 77 | 67 | 34 |
| Future Vol, veh/h | 24 | 726 | 967 | 77 | 67 | 34 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | | - | None |
| Storage Length | - | - | - | 155 | 0 | - |
| Veh in Median Storage | e,# - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 2 | 3 | 2 | 7 | 6 |
| Mvmt Flow | 27 | 825 | 1099 | 88 | 76 | 39 |
| | | | | | | |
| NA . ' . /NA' | NA | | 4 | | \ | |
| | Major1 | | Major2 | | Minor2 | |
| Conflicting Flow All | 1187 | 0 | - | 0 | 1566 | 550 |
| Stage 1 | - | - | - | - | 1099 | - |
| Stage 2 | - | - | - | - | 467 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.94 | 7.02 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.94 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.94 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.57 | 3.36 |
| Pot Cap-1 Maneuver | 595 | - | - | - | 97 | 469 |
| Stage 1 | - | - | - | - | 270 | - |
| Stage 2 | - | - | - | - | 583 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 595 | - | - | - | 89 | 469 |
| Mov Cap-2 Maneuver | - | - | - | - | 89 | - |
| Stage 1 | - | - | - | - | 247 | - |
| Stage 2 | - | - | - | - | 583 | - |
| | | | | | | |
| Annroach | EB | | WB | | SB | |
| Approach | | | | | | |
| HCM Control Delay, s | 0.8 | | 0 | | 133.7 F | |
| HCM LOS | | | | | F | |
| | | | | | | |
| Minor Lane/Major Mvr | nt | EBL | EBT | WBT | WBR | SBLn1 |
| Capacity (veh/h) | | 595 | - | - | - | 122 |
| HCM Lane V/C Ratio | | 0.046 | - | - | - | 0.941 |
| HCM Control Delay (s |) | 11.3 | 0.4 | - | | 133.7 |
| HCM Lang LOS | | D | Λ | | | Г |

F

6.1

В

0.1

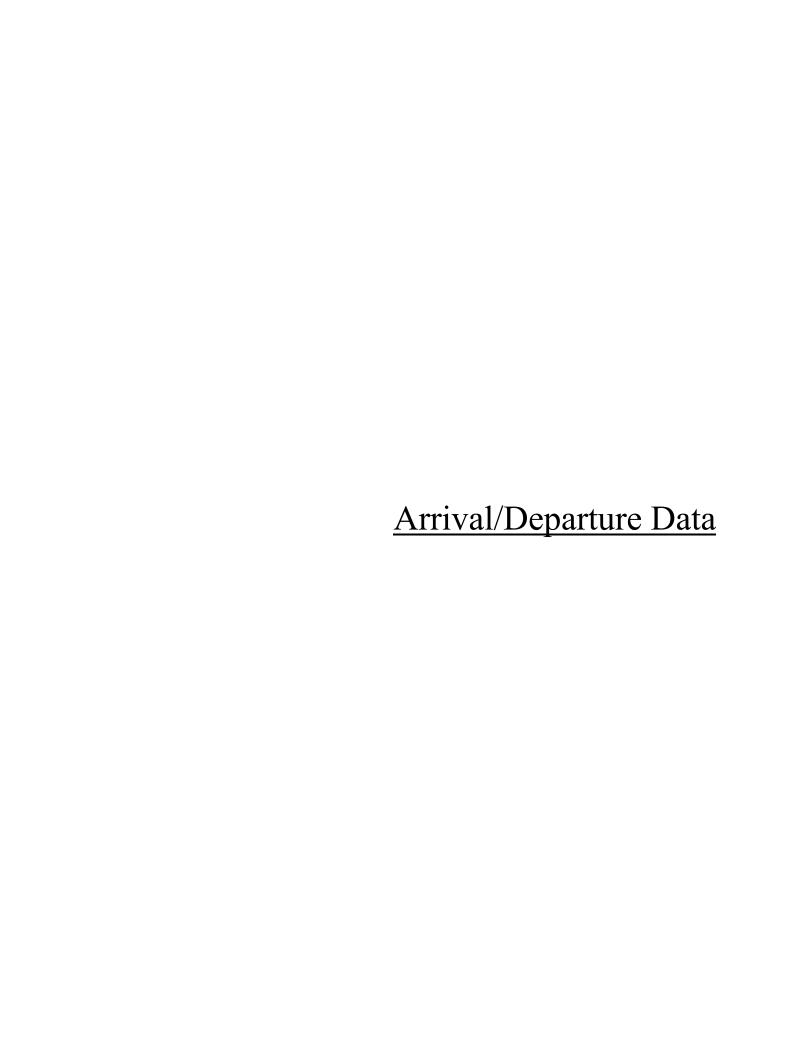
Α

HCM Lane LOS

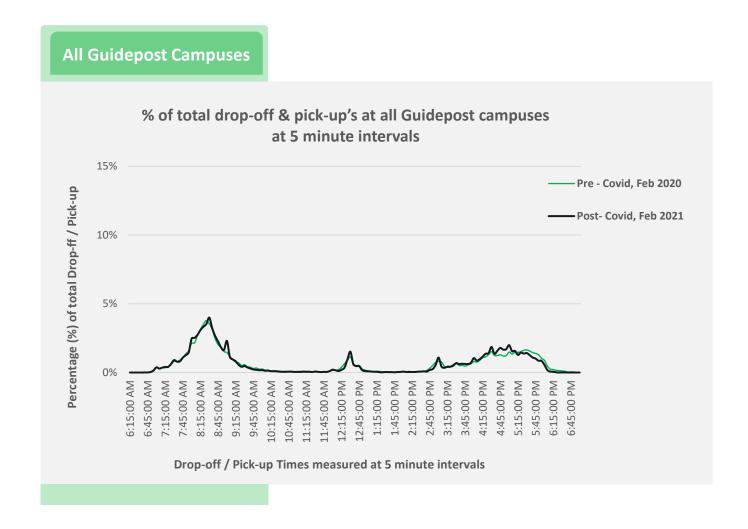
HCM 95th %tile Q(veh)

| Intersection | | | | | | |
|-------------------------------------------------------|----------------|----------|----------|--------------------|-----------|------|
| Int Delay, s/veh | 1.9 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ^ | ^ | | W | |
| Traffic Vol, veh/h | 0 | 707 | 1001 | 0 | 43 | 42 |
| Future Vol, veh/h | 0 | 707 | 1001 | 0 | 43 | 42 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | _ | - | _ | - | 0 | - |
| Veh in Median Storage, # | | 0 | 0 | | 0 | _ |
| Grade, % | - - | 0 | 0 | <u>-</u> | 0 | _ |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| | | | | | | |
| Heavy Vehicles, % | 0 | 2 | 3 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 768 | 1088 | 0 | 47 | 46 |
| | | | | | | |
| Major/Minor Ma | ajor1 | N | /lajor2 | N | Minor2 | |
| Conflicting Flow All | _ | 0 | | 0 | 1472 | 544 |
| Stage 1 | - | - | _ | - | 1088 | - |
| Stage 2 | _ | _ | _ | _ | 384 | _ |
| Critical Hdwy | - | _ | _ | _ | 6.8 | 6.9 |
| Critical Hdwy Stg 1 | _ | _ | _ | <u>-</u> | 5.8 | - |
| Critical Hdwy Stg 2 | | | _ | | 5.8 | _ |
| | _ | - | | | 3.5 | 3.3 |
| Follow-up Hdwy | 0 | - | - | _ | | 488 |
| Pot Cap-1 Maneuver | | - | - | 0 | 120 | |
| Stage 1 | 0 | - | - | 0 | 289 | - |
| Stage 2 | 0 | - | - | 0 | 664 | - |
| Platoon blocked, % | | - | - | | 400 | 400 |
| Mov Cap-1 Maneuver | - | - | - | - | 120 | 488 |
| Mov Cap-2 Maneuver | - | - | - | - | 120 | - |
| Stage 1 | - | - | - | - | 289 | - |
| Stage 2 | - | - | - | - | 664 | - |
| | | | | | | |
| Approach | EB | | WB | | SB | |
| HCM Control Delay, s | 0 | | 0 | | 40.3 | |
| HCM LOS | U | | - 0 | | 40.5 E | |
| TIOIVI LOO | | | | | | |
| | | | | | | |
| Minor Lane/Major Mvmt | | EBT | WBT | SBLn1 | | |
| Capacity (veh/h) | | - | _ | 191 | | |
| | | | | 0.404 | | |
| HCM Lane V/C Ratio | | - | - | 0.484 | | |
| | | - | - | | | |
| HCM Lane V/C Ratio HCM Control Delay (s) HCM Lane LOS | | - - | - - | 0.484 40.3 E | | |

| Intersection | | | | | | |
|-------------------------|-------|----------|----------|----------|--------|--------|
| Int Delay, s/veh | 0.5 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | LDL | 414 | † | WDIX | ₩ | ODIT |
| Traffic Vol, veh/h | 38 | 707 | 1005 | 38 | 0 | 0 |
| Future Vol, veh/h | 38 | 707 | 1005 | 38 | 0 | 0 |
| · | 0 | 0 | | | 0 | 0 |
| Conflicting Peds, #/hr | | | 0 | 0 | | |
| | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, | # - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 2 | 3 | 0 | 0 | 0 |
| Mvmt Flow | 41 | 768 | 1092 | 41 | 0 | 0 |
| | | | | | | |
| | | | | | | |
| | ajor1 | | Major2 | | Minor2 | |
| | 1133 | 0 | - | 0 | 1579 | 567 |
| Stage 1 | - | - | - | - | 1113 | - |
| Stage 2 | - | - | - | - | 466 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.8 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | _ | 5.8 | - |
| Critical Hdwy Stg 2 | _ | _ | _ | _ | 5.8 | _ |
| Follow-up Hdwy | 2.2 | <u>-</u> | _ | <u>-</u> | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 624 | | | | 102 | 472 |
| • | | - | - | | 280 | |
| Stage 1 | - | - | - | - | | - |
| Stage 2 | - | - | - | - | 604 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 624 | - | - | - | 90 | 472 |
| Mov Cap-2 Maneuver | - | - | - | - | 90 | - |
| Stage 1 | - | - | - | - | 248 | - |
| Stage 2 | _ | - | _ | - | 604 | - |
| | | | | | | |
| | | | 1675 | | 0.5 | |
| Approach | EB | | WB | | SB | |
| HCM Control Delay, s | 1.1 | | 0 | | 0 | |
| HCM LOS | | | | | Α | |
| | | | | | | |
| Minor Long/Major Myrest | | EDI | EDT | WDT | WDD | CDI ~1 |
| Minor Lane/Major Mvmt | | EBL | EBT | WBT | WBR : | ORFUI |
| Capacity (veh/h) | | 624 | - | - | - | - |
| HCM Lane V/C Ratio | | 0.066 | - | - | - | - |
| HCM Control Delay (s) | | 11.2 | 0.6 | - | - | 0 |
| HCM Lane LOS | | В | Α | - | - | Α |
| HCM 95th %tile Q(veh) | | 0.2 | - | _ | - | _ |



Guidepost historical drop-off and pick-up data



School Drop Off & Pick

Showing the data in 15 - minute intervals, we see peak drop off times are between 8:00 - 9:00 am, however during any 15 - minute window, drop offs represent < 11%.

Less than 7% of parents drop off between 7:00 - 8:00 am

Approx. 8% of parents drop off between 8:00 – 8:15 am

Approx. 10% of parents drop off between 8:15 – 8:30 am

Approx. 11% of parents drop off between 8:30 - 8:45 am

Approx. 8% of parents drop off between 8:45 - 9:00 am

Approx. 10% of parents drop off between 9:00 - 10:30 am

Approx. 4% of parents pick up between 12:30 -12:45 pm

Parent pick ups (approx. 42%) are spread evenly between 3:00 - 7:00 pm

CONFIDENTIAL 1

| | g Occ | cupan | cy | | St | taff P | arkin | g Occ | cupan | cy | | Staff Parking Occupancy | | | | | | | | |
|----------|-------------|-------|----|----|-----|--------|-------|-------|-------|----|--------|-------------------------|----------|-----------|-----|----|----|----|-----|-------|
| Time | YTD | TD | СН | EL | Ad. | Total | Time | YTD | TD | СН | EL | Ad. | Total | Time | YTD | TD | СН | EL | Ad. | Total |
| 7:00 | 1 | 3 | 4 | 2 | 1 | 11 | 11:00 | 3 | 7 | 10 | 4 | 6 | 30 | 3:00 | 4 | 7 | 10 | 4 | 6 | 31 |
| 7:15 | 1 | 3 | 4 | 2 | 1 | 11 | 11:15 | 3 | 7 | 10 | 4 | 6 | 30 | 3:15 | 4 | 7 | 10 | 4 | 6 | 31 |
| 7:30 | 1 | 3 | 4 | 2 | 1 | 11 | 11:30 | 3 | 7 | 10 | 4 | 6 | 30 | 3:30 | 4 | 4 | 6 | 4 | 6 | 24 |
| 7:45 | 1 | 3 | 4 | 2 | 1 | 11 | 11:45 | 3 | 7 | 10 | 4 | 6 | 30 | 3:45 | 4 | 4 | 6 | 4 | 6 | 24 |
| 8:00 | 2 | 3 | 4 | 2 | 4 | 15 | 12:00 | 3 | 7 | 10 | 4 | 6 | 30 | 4:00 | 3 | 4 | 6 | 4 | 5 | 22 |
| 8:15 | 2 | 6 | 8 | 2 | 4 | 22 | 12:15 | 3 | 7 | 10 | 4 | 6 | 30 | 4:15 | 3 | 4 | 6 | 4 | 5 | 22 |
| 8:30 | 2 | 6 | 8 | 2 | 4 | 22 | 12:30 | 3 | 7 | 10 | 4 | 6 | 30 | 4:30 | 3 | 4 | 6 | 2 | 5 | 20 |
| 8:45 | 2 | 6 | 8 | 2 | 4 | 22 | 12:45 | 3 | 7 | 10 | 4 | 6 | 30 | 4:45 | 3 | 1 | 2 | 2 | 5 | 13 |
| 9:00 | 3 | 6 | 8 | 4 | 5 | 26 | 1:00 | 3 | 7 | 10 | 4 | 6 | 30 | 5:00 | 2 | 1 | 2 | 2 | 2 | 9 |
| 9:15 | 3 | 6 | 8 | 4 | 5 | 26 | 1:15 | 3 | 7 | 10 | 4 | 6 | 30 | 5:15 | 2 | 1 | 2 | 2 | 2 | 9 |
| 9:30 | 3 | 7 | 10 | 4 | 6 | 30 | 1:30 | 3 | 7 | 10 | 4 | 6 | 30 | 5:30 | 2 | 1 | 2 | 2 | 2 | 9 |
| 9:45 | 3 | 7 | 10 | 4 | 6 | 30 | 1:45 | 3 | 7 | 10 | 4 | 6 | 30 | 5:45 | 2 | 1 | 2 | 2 | 2 | 9 |
| 10:00 | 3 | 7 | 10 | 4 | 6 | 30 | 2:00 | 3 | 7 | 10 | 4 | 6 | 30 | 6:00 | 1 | 1 | 2 | | 2 | 6 |
| 10:15 | 3 | 7 | 10 | 4 | 6 | 30 | 2:15 | 3 | 7 | 10 | 4 | 6 | 30 | 6:15 | 1 | 1 | 2 | | 2 | 6 |
| 10:30 | 3 | 7 | 10 | 4 | 6 | 30 | 2:30 | 3 | 7 | 10 | 4 | 6 | 30 | 6:30 | | | | | | |
| 10:45 | 3 | 7 | 10 | 4 | 6 | 30 | 2:45 | 3 | 7 | 10 | 4 | 6 | 30 | 6:45 | | | | | | |
| YTD - Yo | oung toddle | r | | | | | | | | | _ Elem | | P. Cumma | -+ C+- ££ | | | | | | |

TD – Toddler CH – Children's House

Ad. – Administration & Support Staff