Appendix I: Traffic Analysis

NORTHLINK AVIATION
ANC SOUTH AIRPARK CARGO DEVELOPMENT

TRAFFIC IMPACT ANALYSIS

Draft

Prepared For:

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April 2022

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LIST OF ACRONYMS

AAC ..... Alaska Administrative Code
AADT ..... Average Annual Daily Traffic
ADA ..... Americans with Disabilities Act
ADG ..... Aircraft Design Group
AFM ..... Airfield Maintenance
AIP ..... Airport Improvement Program
ALP ..... Airport Layout Plan
ANC ..... Ted Stevens Anchorage International Airport
ASIG ..... Aircraft Service International Group
AWWU ..... Anchorage Water & Wastewater Utility
BMP ..... Best Management Practices
CATEX ..... Categorical Exclusion
CEA ..... Chugach Electric Association
CFR ..... United States Code of Federal Regulations
CR ..... Central Region
DI ..... Ductile Iron
DOT&PF ..... Department of Transportation and Public Facilities
EDR ..... Engineer's Design Report
ESCP ..... Erosion and Sediment Control Plan
FT ..... Feet
FAA ..... Federal Aviation Administration
HMA ..... Hot Mix Asphalt
LED ..... Light Emitting Diode
LBS ..... Pounds
LHD ..... Lake Hood Seaplane Base
LOS ..... Level of Service
MOA ..... Municipality of Anchorage
MUTCD ..... Manual on Uniform Traffic Control Devices (2009)
OFA ..... Object Free Area
RON ..... Remain Overnight
SLCC ..... Sand Lake Community Council
SQFT ..... Square feet
TIA ..... Traffic Impact Analysis
RW ..... Runway
TW ..... Taxiway
TDG ..... Taxiway Design Group
TSA ..... Taxiway Safety Area

I. INTRODUCTION AND SUMMARY

A. PURPOSE OF REPORT & STUDY OBJECTIVES

The purpose of this report is to analyze the traffic impacts on the adjacent transportation infrastructure of the South Airpark site development located on the north side of Raspberry Road west of the South Airpark Place intersection. The site location and the surrounding area are shown on Figure 1.

The scope of this study was based on discussions with the DOT&PF and MOA staff and the requirements of 17 AAC 10.060, and a review of the conceptual site plan.

Study objectives discussed in this report include:

1. Planned developments and transportation improvements in the study area;
2. Existing traffic conditions during the weekday peak hours;
3. Trip generation and distribution estimates for the proposed development;
4. Traffic impacts associated with the proposed development; and
5. Potential improvements required to maintain acceptable traffic operations.

B. EXECUTIVE SUMMARY

The proposed development is located on Ted Stevens Anchorage International Airport (ANC) property and is located west of Taxiway Z. Figure 1 shows a vicinity map of the project area. The development includes establishment of a new 120-acre lease lot of which approximately 40 acres, adjacent to Raspberry Road will be reserved as a landscaped buffer.

Development of the site will include construction of 15 hardstands for Group VI aircraft, associated taxi lanes and aprons, a 110,000 sqft warehouse/office facility, and a 25,000 sqft equipment facility.

Improvements for the South Airpark Development are scheduled for construction in the summer of 2022 with completion in 2024. The proposed development and associated traffic generation is expected to require only minor improvements beyond site traffic circulation. The intersection of Raspberry Road and Sand Lake Road is expected to operate at an acceptable intersection level of service for the construction year. However, the southbound approach is expected to deteriorate to a level of service E following development of South Airpark.

II. PROPOSED DEVELOPMENT

A. SUMMARY OF DEVELOPMENT

1. Location

North Link Aviation is entering into a long-term lease with ANC for the 120-acre lot located on the north side of Raspberry Road and west of Taxiway Z (Legal Description: ADA 32351 INTL ARPT BLK 23 LT 15.) Figure 1 shows a vicinity map of the project area.

The site currently has no constructed access to Raspberry Road.

2. Land Use & Intensity

Photo 1 – South Airpark Development Site

Most of the site is currently undeveloped except for a gravel pad adjacent to Taxiway Z that is utilized as snow storage.

Initial development (Phase 1) of the site will include construction of five hardstands and associated access to the taxiway. Phase 2 construction will include a 110,000 square foot warehouse/office, parking and driveways. Phase 3 construction will include construction of the remaining ten hardstands and an auxiliary ground service equipment building (25,000 sqft) Full buildout of the site is anticipated be completed in the fall of 2023. The parking lot will include space for 120 vehicles.

3. Public Involvement

The design team and developer have been meeting periodically with the Sand Lake Community Council (SLCC) and key stakeholders to solicit their input on development of the site. Based on these discussions, access to the site will be provided by South Airpark Place. Vegetative screening and a berm will also be provided along Raspberry Road (on-property) to provide visual screening and noise mitigation.

4. Site Plan

A site plan is shown in Figure 2. As shown, approximately 80 acres of the site is dedicated to airfield operations only. Traffic between the airfield and landside is expected to be minimal.

Landside vehicles will access the site via South Airpark Place. Construction of the driveway access will include construction of a driveway parallel to Raspberry Road

and will require removal of the existing driveway for the parking lot of the UPS Training Center. This driveway will be connected to the proposed site access and connect to South Airpark Place.

A berm will be constructed south of the apron to provide a visual buffer between the apron and Raspberry Road. Existing vegetation along the south property line will be maintained to provide further screening of the site.

Parking areas and driveway will be constructed to meet MOA code requirements including lighting and accessibility requirements. The driveway will include two lanes, 12 feet in width, and a ditch on each side to handle drainage.

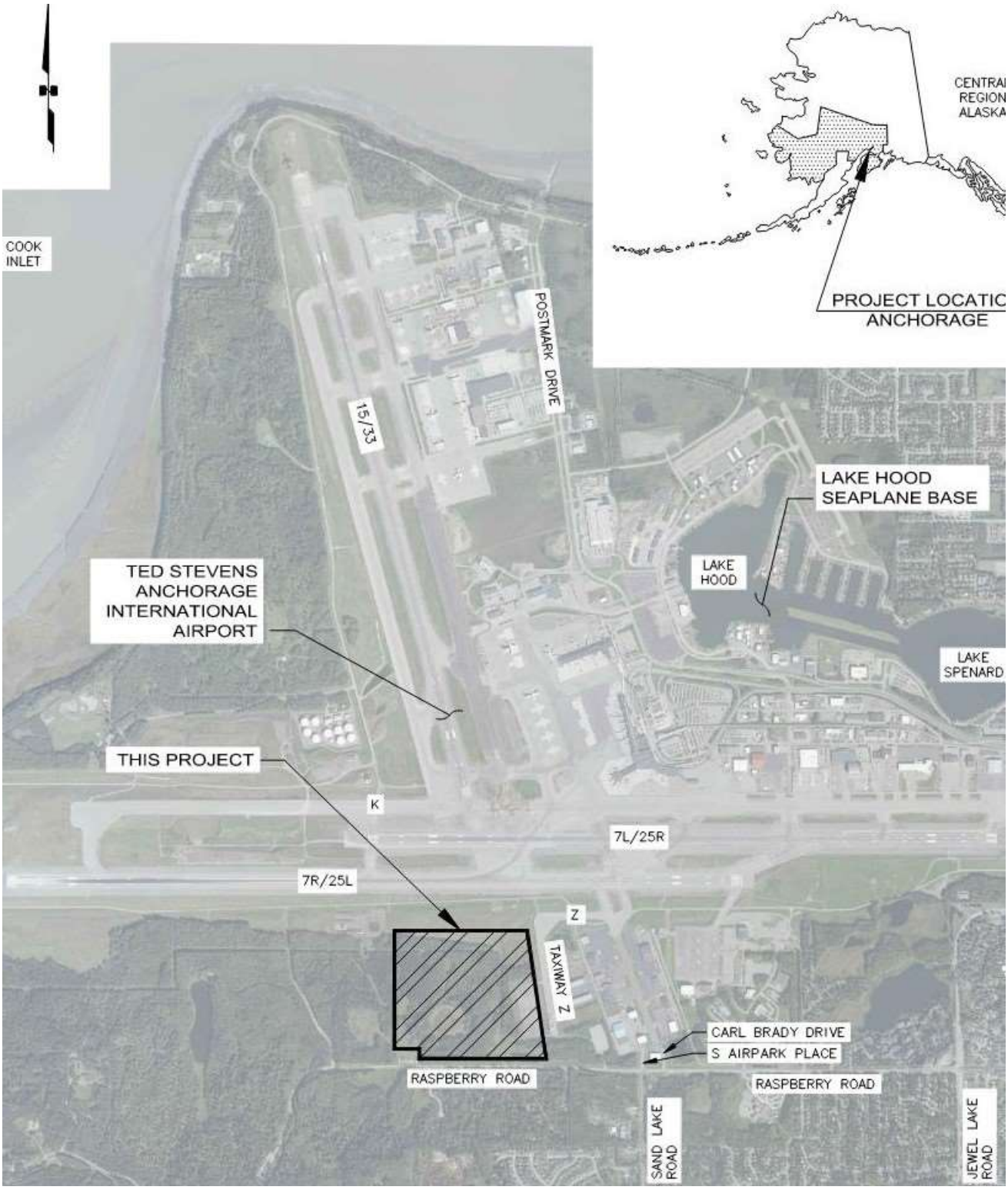
5. Zoning

The parcel is zoned I1 (PLI). The development will be industrial, and aviation related.

B. PROJECTED SCHEDULE

Construction is scheduled to begin in the fall of 2022 and continue into 2023. Phase 1 is scheduled to be completed in 2022 with the hardstands being in use in late fall. Occupancy of the warehouse/office is anticipated in early 2024.

Figure 1 – Vicinity Map



FUTURE TAXIWAY 'Z'

W. PERIMETER ROAD

TAXIWAY 'F'

EXISTING TAXIWAY 'Z'

TOFA

LEASE LINE

DETENTION BASIN 200,000 sqft

S. AIRPARK PL

UGE UFO W SS GAS

150' 0 150' 300'

PROJECT: 73130.00

STATUS:

CRW ENGINEERING GROUP, LLC
3940 ARCTIC BLVD. SUITE 300
ANCHORAGE, ALASKA 99503
PHONE: (907) 562-3252
#AECL882-AK

SOUTH AIRPARK CARGO

SITE PLAN

DATE 03 2022

SCALE GRAPHIC

FIGURE 2

File: J:\JobsData\73130.00 ANC South AirPark Development\00 CADD 2019\02 Figures\07 TIA\73130.00 Fig 2 – Site Plan.dwg

III. AREA CONDITIONS

A. STUDY AREA

Based on meetings with the DOT&PF and the MOA Traffic Department, the study area is limited to the intersection of South Airpark Place and Raspberry Road. An operational study of the eastbound movement at the signalized intersection of Jewel Lake and Raspberry Road was also included at the request of DOT&PF. Results of this study are included in Appendix E.

B. STUDY AREA LAND USE

1. Existing Land Uses

The area to the south of the project site is residential. Land use to the east of the site is primarily commercial development with an aviation focus. North of the site is existing airport infrastructure including ANC's east/west runway. West of the site is currently undeveloped but is zoned I-1 and located on ANC property.

2. Compliance with Local Planning

Anchorage 2040 Comprehensive Plan

The Anchorage 2040 Comprehensive Plan designates the Airport as an anchor facility. Anchor facilities "*have an established presence by their permanence and stabilizing physical and social ties to the surrounding community. They help diversify the city's economy by employing large workforces, purchasing goods and services, and attracting significant investment*." The plan further defines development at the Airport as follows:

- *In Airport lands, wetland permits, land use regulations, FAA regulations and grant assurances, and other requirements would frame land uses and future development configurations.*
- *Light industrial, freight distribution, and office-warehouse activities may be accommodated on leased lots.*

The South Airpark Development meets the following policies in the 2040 Comprehensive Plan:

- *LUP 5.1. Implement recommended land use patterns and growth in context with existing infrastructure capacity and planned improvements, for utilities, streets, trails, public transit, parks, green infrastructure, and schools.*
- *LUP 9.1. Identify and preserve a suitable, predictable supply of industrial land in areas most appropriate for existing and future high-priority industrial uses. LUP 9.2. Limit non-industrial uses that could displace or conflict with existing or potential industrial functions in industrially designated areas, in order to preserve these areas for primarily industrial development and ensure compatibility of adjacent uses and traffic. LUP 9.3. Encourage the retention and*

intensification of industrial uses on existing sites via reuse and redevelopment. LUP 9.4. Recognize industrial Traded Sectors as high priority for economic development and industrial land availability, preservation, and infrastructure investment actions

ANC Master Plan, 2017

In the 2017 ANC Master Plan, the South Airpark Development is identified for cargo use in the associated Land Use Plan. Development will comply with all FAA requirements and will not impact future development including the new North/South runway and extension of Taxiway Z.

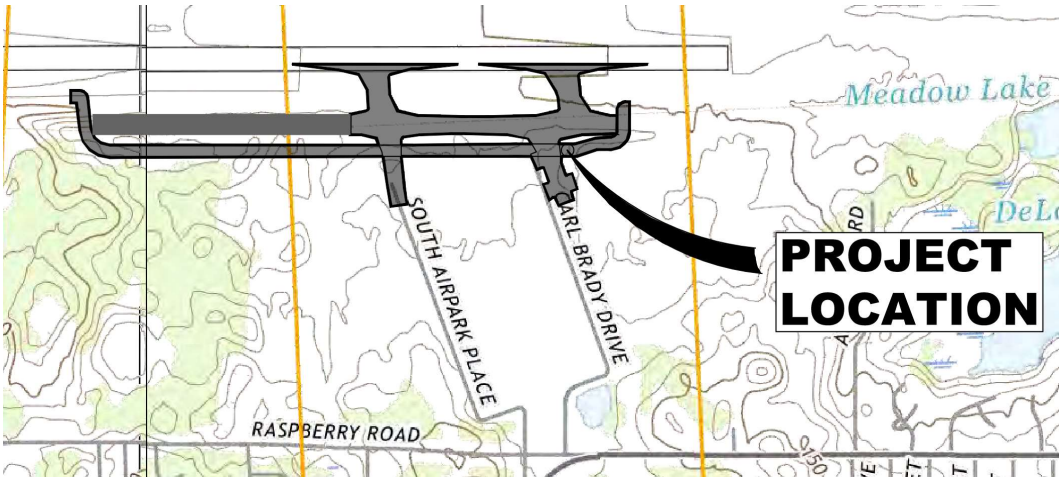
3. Existing Zoning

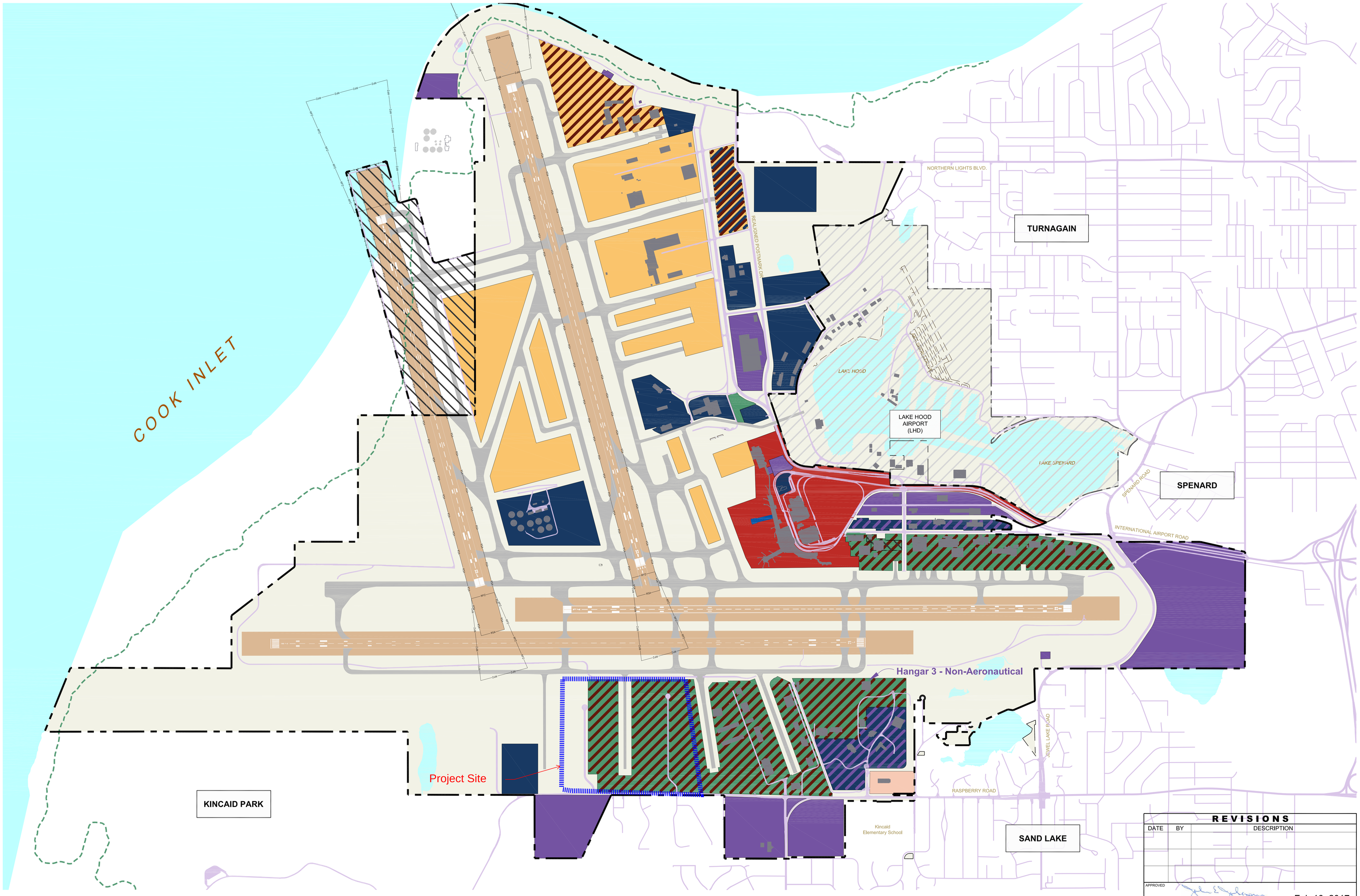
Parcels to the south of the site are zoned R-1A and are residential in nature. Parcels to the east and west of the site are a mix of PLI and I-1 zoning with an emphasis on aviation development (ANC lease lots). The proposed redevelopment complies with all current zoning regulations.

4. Anticipated Future Development

Taxiway Z expansion/renaming to Taxiway R. Undeveloped parcels to the west could be developed as industrial. However, no plans for redevelopment are currently known. No improvements are anticipated on South Airpark Place or Raspberry Road at this time.

Figure 3 – Taxiway Z Expansion





LEGEND

SYMBOL	ITEM	SYMBOL	ITEM	SYMBOL	ITEM
	International Cargo		Domestic Cargo / Aircraft Aeronautical		Taxiway
	Domestic Cargo		International Cargo / Domestic Cargo		Anchorage International Airport Boundary
	Aircraft Aeronautical		International Cargo / Domestic Cargo / Other Aeronautical		Lake Hood Airport
	Other Aeronautical		Other Aeronautical / Nonaeronautical		Major Road
	Nonaeronautical		Land Acquisition		Existing Tony Knowles Coastal Trail
	Passenger Terminal and Landside		Department of Military and Veterans Affairs Land Management Agreement		Future Airport Development, Building
	Airfield		Building		
	Future Airport Development				

Magnetic Declination = 16° 0.49' EAST
May 6, 2013
Annual Rate Of Change = 19.9' W

SOURCE: NOAA Geophysical Data Center

TRUE NORTH — MAGNETIC NORTH

GRAPHIC SCALE IN FEET

GENERAL NOTES:

1. Reference FAA approval letter for non-aeronautical use dated November 24, 2014.

The contents of this plan do not necessarily reflect the official views or policy of the Federal Aviation Administration (FAA). Acceptance of this document by the FAA does not in any way constitute a commitment on the part of the United States to participate in any development depicted herein nor does it indicate that the proposed development is environmentally acceptable in accordance with appropriate public laws.

REVISIONS

DATE	BY	DESCRIPTION

APPROVED

John E. Johansen, PE, AAE
Engineering, Environmental and Planning Director

Feb 10, 2017
DATE

Ted Stevens Anchorage International Airport
AeroNexus®

ON-AIRPORT LAND USE PLAN

DRAWN	CHECKED	DWG NO.
mes		32 of 34
SCALE	DATE	
1" = 700'	12/2016	

O:\Engineering\Eng-Libraries\Airport Layout Plans\ANC-ALP-2016\ANC-ALP32.dwg ALP 32 Feb 22, 2017 - 1:15pm

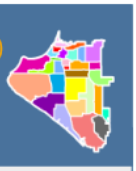
Municipality of Anchorage Comprehensive Plan

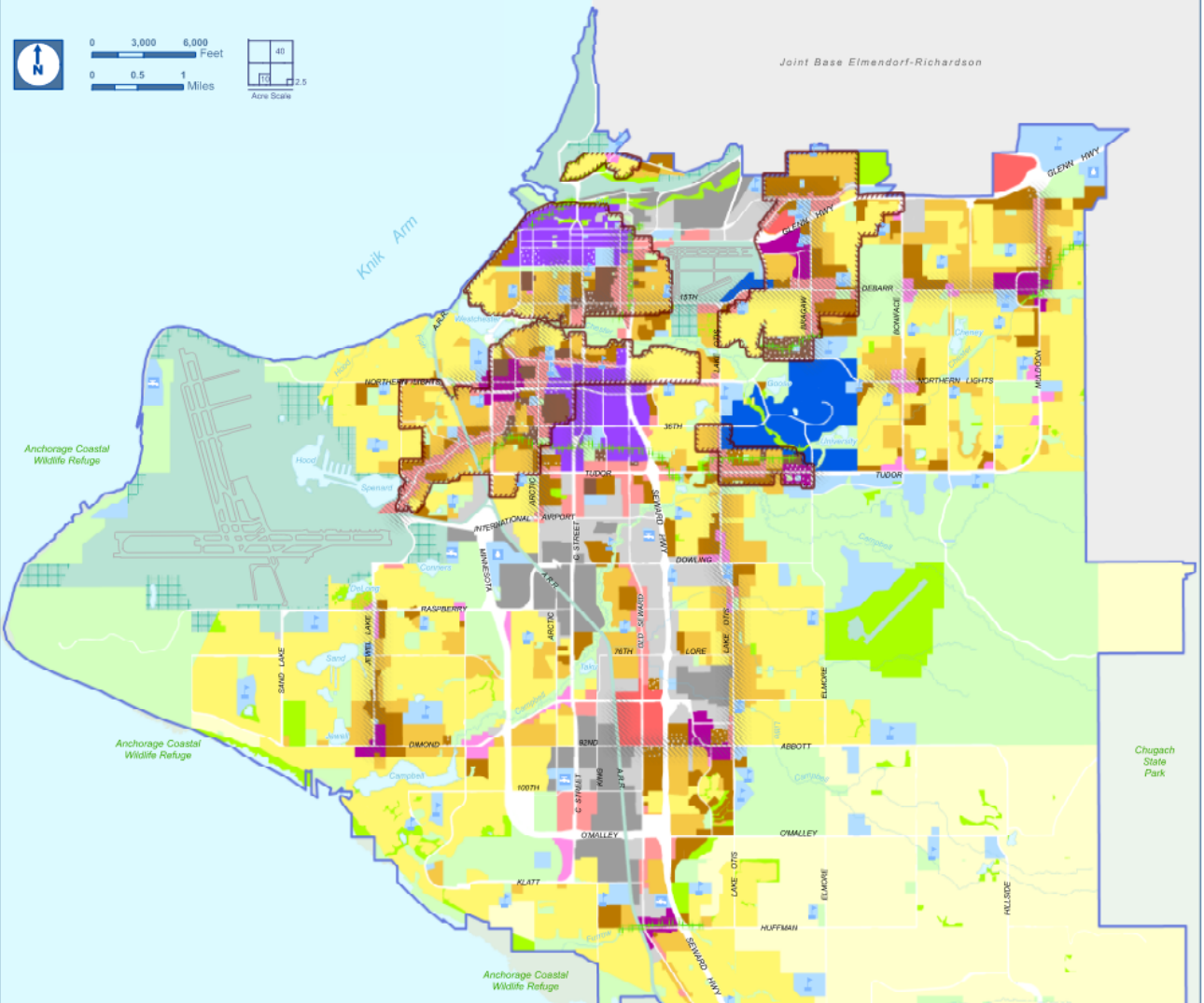
Anchorage 2040 Land Use Plan Map

A Supplement to the Anchorage 2020 Comprehensive Plan

Anchorage 2040 Land Use Plan

As Adopted by AO 2017-116
September 26, 2017





Neighborhoods

- Large-lot Residential
- Single-family and Two-family
- Compact Mixed Residential–Low
- Compact Mixed Residential–Medium
- Urban Residential–High

Centers

- Neighborhood Center
- Town Center
- Regional Commercial Center
- City Center

Corridors

- Commercial Corridor
- Main Street Corridor

Open Spaces

- Park or Natural Area
- Other Open Space

Facilities and Institutions

- Community Facility or Institution
  - School
  - Utility / Facility
- University or Medical Center
- Airport, Railroad, or Port Facility
- Potential Open Space Alternative

Industrial Areas

- Light Industrial / Commercial
- General Industrial

Growth-Supporting Features

(Patterns over base land use color)

- Transit-supportive Development
- Greenway-supported Development
- Traditional Neighborhood Design
- Residential Mixed-use Development
  (White dots over base land use color)

Anchorage Bowl Land Use Plan Area Boundary

This map is a part of Section 2 of the *Anchorage 2040 Land Use Plan* narrative. Section 2 of the Plan provides definitions and guidance regarding the land use designations and other features on this map.

1/10/2018 Land_Use_Plan_Map_11x17.mxd

C. SITE ACCESSIBILITY

1. Area Roadway System

Access from the site will provided from South Airpark Place. South Airpark Place is a two-lane roadway with 12-foot lanes that serves aviation related businesses along Taxiway F. South Airpark Road is an unclassified roadway that is maintained by ANC. South Airpark connects to Raspberry Road at the Sand Lake intersection.

Photo 2 - Raspberry Road facing east at South Airpark Place

Raspberry Road is a two-lane roadway with 12-foot lanes and 8-foot-wide paved shoulders. Raspberry Road runs east west connecting the residential neighborhoods on the south and industrial properties on the north to Kincaid Park to the west and businesses, workplaces, and other facilities to the east. Sand Lake Road runs north/south connecting Raspberry Road to Dimond Boulevard.

According to the "Official Streets and Highways Plan" (OS&HP), Raspberry Road is classified as a collector street west of Sand Lake and a minor arterial east of Sand Lake Road. Sand Lake Road is classified as a minor arterial. The existing speed limit on Raspberry Road is 45 MPH. The existing speed limit on Sand Lake Road is 50 mph. Both Sand Lake Road and Raspberry Road are owned by DOT&PF.

The intersection of Sand Lake Road/South Airpark Place and Raspberry Road is a two-way stop-controlled intersection with Sand Lake Road and South Airpark Place being the stopped movements. The north, south, and west bound movements all have separated left turn lanes. Sand Lake Road has a north bound right turn slip lane.

An existing separated pathway runs along the south side of Raspberry Road and west side of Sand Lake Road. No pedestrian facilities are located on South Airpark Place.

2. Traffic Volumes and Conditions

Existing traffic volumes on Raspberry Road and Sand Lake Road were obtained from the Alaska Department of Transportation & Public Facilities' "2020 Traffic Map." Intersection count data for the Raspberry Road intersections at Sand Lake Road/South Airpark Place and Carl Brady Drive on in February and March of 2022. AM Peak Hour for the intersection of Raspberry Road and Sand Lake Road occurred between 8:15 AM and 9:15 AM. The PM Peak Hour occurred between 4:45 PM and 5:45 PM. Previous counts by ADOT were used for the UPS driveway morning and evening peak hours. Turning movement counts are summarized in Appendix A. Existing traffic volumes are shown on Figure 6.

3. Transit Service

The Municipality's People Mover provides transit service within the Anchorage area. Transit Route No. 65 is the closest transit line providing service along Jewel Lake Road.

4. Crash Analysis

Crash data for the study area was obtained from the Municipality of Anchorage for the years 2015-2020. For the 6-year study period, four crashes were attributed to the Raspberry Road/Sand Lake Road intersection. Of these crashes, two of them were angle accidents occurring from traffic turning left from South Airpark Place onto Raspberry Road. The other two crashes were vehicle/object crashes.

A summary of the crash data is provided in Appendix C.

IV. PROJECTED TRAFFIC

A. SITE TRAFFIC

1. Trip Generation

Traffic generation from the South Airpark development was calculated using the ITE *Trip Generation Manual (11th Edition)*. The *Trip Generation Manual* allows for grouping the office sites together since they will share common parking areas and driveways.

Traffic from the development was also calculated for the AM and PM peak hours. The PM peak hour will correspond to the critical time when the adjacent street traffic and site generated traffic is at its maximum. A summary of the total AM peak hour and PM peak hour trip generation is shown in Table 1.

Table 1–Estimated Trip Generation

ITE Code	Use	Time	Factor	Facility Size (sqft)	Trips Generated
150	Warehouse	AM Peak	0.42 trips per 1000 sqft	116,000	49 trips
710	Office Building	AM Peak	1.56 trips per 1000 sqft	30,000	47 trips
				AM Peak Total:	**96 trips**
150	Warehouse	PM Peak	0.45 trips per 1000 sqft	116,000	52 trips
710	Office Building	PM Peak	1.49 trips per 1000 sqft	30,000	45 trips
				PM Peak Total:	**97 trips**

The facility is anticipated to employee a total of 90 employees for the main warehouse and 60 employees for the equipment facility (3 shifts per 24-hour day.) Assuming shift changes occur during the peak hour, this equates to approximately 100 employees during the peak hours and closely matches the ITE Trip Generation estimate. This analysis uses the higher trip generation of 100 vehicles during the peak hours for it's analysis. Truck traffic to the site is anticipated to be approximately four to six trucks per day. Airfield vehicles such including aircraft service vehicles are anticipated to utilize ANC's interior Tug Road network and are not expected to leave ANC property.

2. Directional Distribution

Since the site is anticipated to operate 24 hours a day in three shifts of equal increments, a directional distribution of 50/50 was used for the development. Directional distribution for the adjoining highways was determined using existing count data.

3. Trip Assignment

A trip assignment, shown in Appendix B, was developed through a review of historic and projected household growth and average annual daily traffic volumes (AADT.) Since the majority of the work trips during AM and PM Peak hours originate and end at home, the existing population data was the primary method for assigning trips.

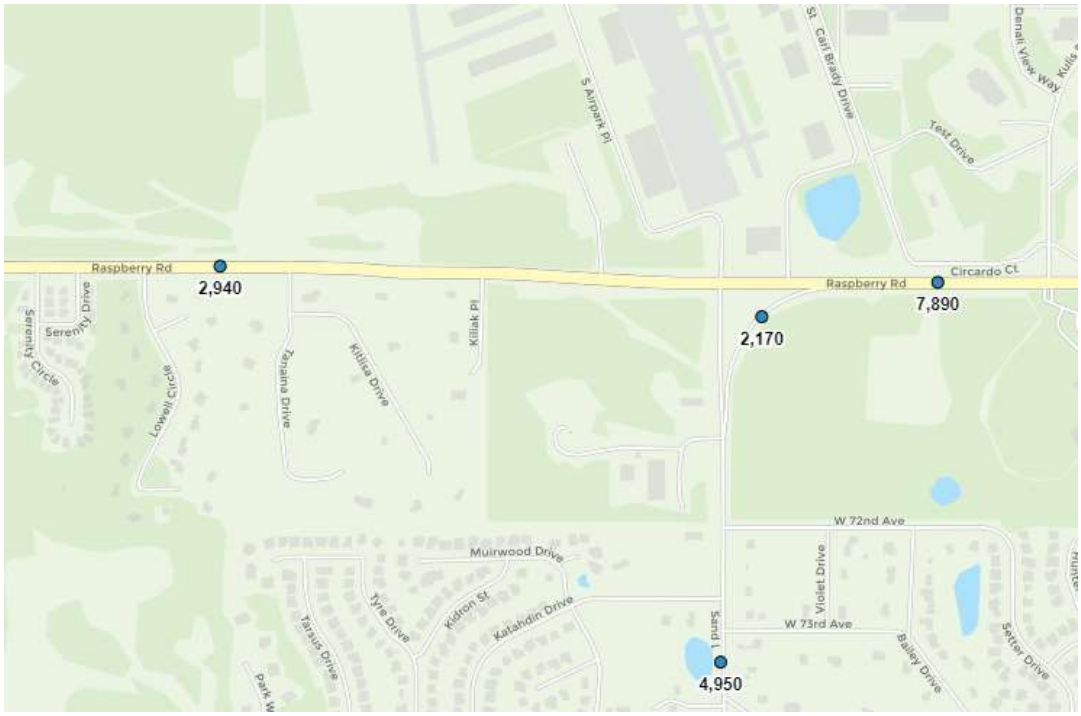
B. BASE TRAFFIC

Base Traffic for the build year (2024) was assigned using the existing traffic volumes obtained from the Alaska Department of Transportation. A growth rate of 1.0% was used to forecast traffic for the build year. Peak hour traffic for the initial construction year, 2024, and the future year, 2034, is shown on Table 2. AADT for Sand Lake Road includes the right turn slip lane. Since this lane bypasses the Raspberry Road intersection, the slip lane traffic was not included in level of service calculations.

Table 2 –Base Traffic Adjacent Streets

Street	2024			2034		
	AADT	AM Peak	PM Peak	AADT	AM Peak	PM Peak
Raspberry Road east of Sand Lake Road	8210	517	936	9069	571	1034
Raspberry Road west of Sand Lake Road	3059	193	349	3379	213	385
South Airpark Place	663	42	76	732	46	83
Sand Lake Road	5151	325	587	5468	344	623

Figure 6 – DOT&PF Online Traffic Map



C. TOTAL TRAFFIC

Turning Movements for peak hour traffic showing the traffic added by the South Airpark development for the construction year 2024 and the future year 2034 is shown in Section V.

Figure 7 – Proposed Turning Movements – Base Traffic

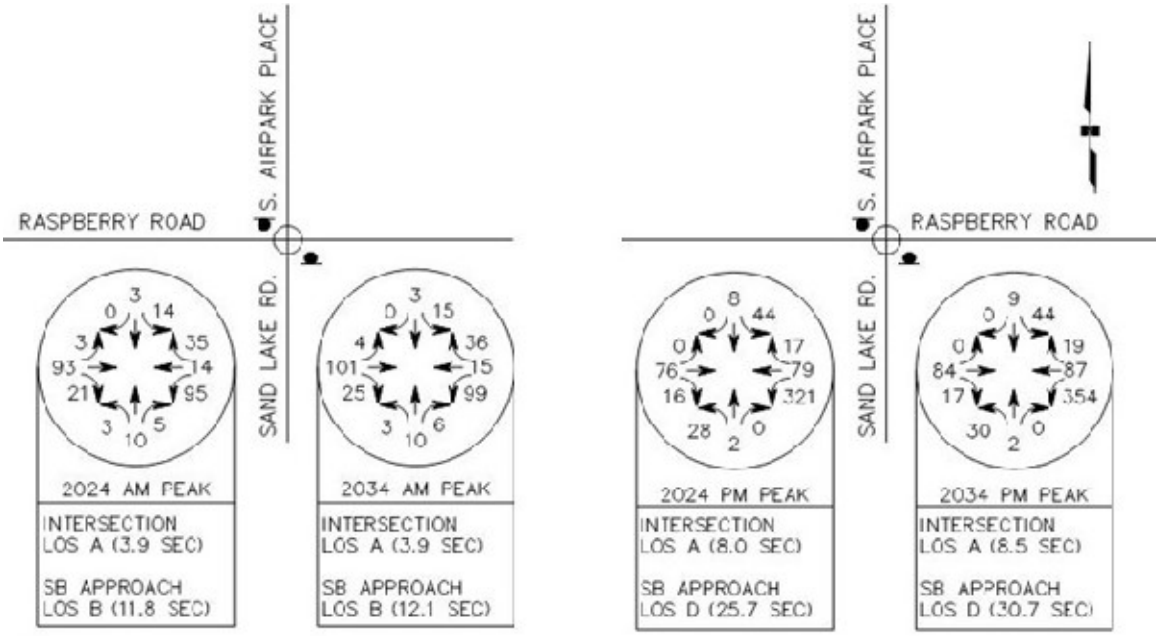
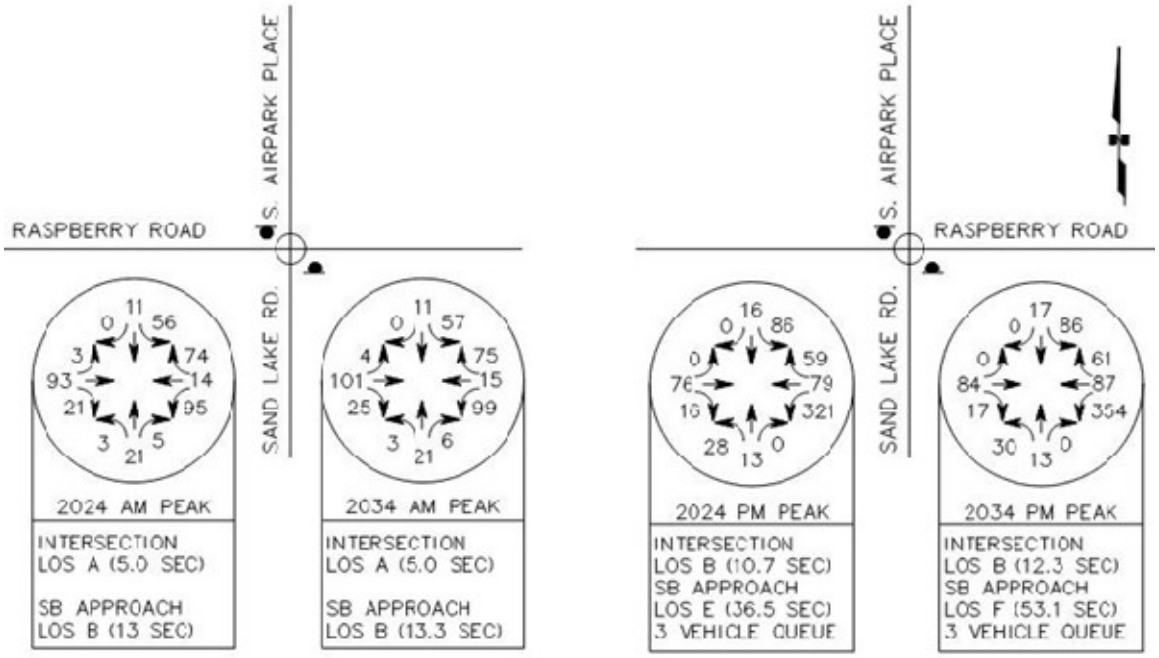


Figure 8 – Proposed Turning Movements – with Development



A. CAPACITY AND LEVEL OF SERVICE

As summarized on the attached tables, a Level of Service (LOS) analysis was performed in accordance with the Transportation Research Board's *Highway Capacity Manual, 2010.* The LOS was calculated using Trafficware Synchro, Version 11. LOS Criteria for study area intersections is shown in Table 3.

Table 3: Level of Service Criteria for Intersections

Level of Service	Average Total Delay (Sec/Veh)
A	< 10
B	>10 and < 15
C	>15 and < 25
D	>25 and < 35
E	>35 and < 50
F	>50

Levels of Service calculations were performed at the two-way stop-controlled intersection of Raspberry Road and Sand Lake Road. Detailed Level of Service results are shown in Appendix D.

Table 4 - Level of Service – Raspberry Road/Sand Lake Intersection
Two Way Stop Controlled Intersection

	Without Development		**With Development**	
	AM Peak	PM Peak	AM Peak	PM Peak
Construction Year - 2024				
Intersection	A	A	A	B
Delay (sec)	*3.9 sec*	*8.0 sec*	*5.0 sec*	*10.7 sec*
SB Approach	*B*	*D*	*B*	*E*
Delay (sec)	*1.8 sec*	*25.7 sec*	*12.3 sec*	*36.5 sec*
Queue Length (vehicles)	*1 vehicle*	*2 vehicles*	*1 vehicle*	*3 vehicles*

The intersection will operate at an acceptable level of service before and after development in the AM and PM Peak hours. However, the northbound approach will deteriorate from a LOS D to a LOS E during the PM peak hour. The existing left turn lane (approximately 120 feet in length) will accommodate the proposed queue length.

Right Turn Analysis

The NCHRP Reports 279 and 457 provide guidance for the addition and design of right turn lanes on highways. Right turn lanes provide space for traffic exiting the roadway to decelerate and make a turn outside of through traffic thus allowing for a safer and more efficient intersection. Figure 2-6 of NCHRP 457 provides a table for

right turn treatments. With approximately 59 cars turning right from Raspberry Road to South Airpark Place during the 2024 PM peak hour, a right turn lane is a viable alternative. Additionally, adding a westbound right turn lane will improve the level of service for the south bound approach to a LOS D.

NCHRP 457 provides guidance for determining the length of the right turn lane. Similar to the left turn lane design, the right turn lane should accommodate length for both storage and deceleration. A speed reduction of 10 mph is typically allowed in the through lane, and vehicles making a right turn will not be required to make a full stop. A right turn lane length of 100' is recommended to allow for right turning traffic and decel in the through lane. It is important to note that over 70% of the westbound traffic at this intersection is turning left and utilizing an existing left turn lane.

Signal Warrant Analysis

A signal warrant analysis was performed for future traffic conditions at the intersection of Raspberry Road and Sand Lake Road to determine the need for a traffic signal at this location. Chapter 4B of the Manual of Uniform Traffic Control Devices (MUTCD) provides for nine different signal warrants that consider traffic volume, crash history, pedestrians, and other factors. Three of these warrants are potentially applicable at this location. These include Warrant 1: Eight-Hour Vehicular Volume, Warrant 2: Four-Hour Volume, and Warrant 3: Peak-Hour Volume. However, the volume warrants were not met based on the count data taken in 2022. Results of the signal warrant analysis are included in Appendix B.

Table 5: Signal Warrant Analysis

MUTCD Warrant		Warrant Met?	Comments
Warrant 1	8-Hour Volume	No	Does not meet for Condition A or Condition B
Warrant 2	4-Hour Volume	No	Does not meet minor street threshold
Warrant 3	Peak Hour	No	Does not meet minor street threshold
Warrant 4	Pedestrian Volume	No	Does not meet minimum pedestrian volume
Warrant 5	School Crossing	Not Applicable	
Warrant 6	Coordinated Signal	Not Applicable	
Warrant 7	Crash Experience	No	
Warrant 8	Roadway Network	No	Not a major intersection
Warrant 9	Intersection Grade Xing	Not Applicable	

All-Way Stop Analysis

The MUTCD provides warrants for all-way stop controlled intersections. MUTCD Section 2B.07 recommends the use of an all-way stop as an interim measure before a traffic signal is warranted. The MUTCD sets minimum volumes for an all-way stop as follows: the combined total of both major approaches is greater than 300 vph and the minor approach is greater than 200 units per hour (includes vehicles, bicycles and pedestrians) for any eight hour periods. Additionally, the minor approach must have a delay greater than 30 seconds during the peak hour. While the minor approach will meet the delay guidelines, it will not meet minimum volume requirements for the minor approach based on projected traffic turning movements with the development.

Raspberry Road and Jewel Lake Intersection – Planning Level Analysis

A planning level of service analysis was conducted on the signalized intersection of Raspberry Road and Jewel Lake Road to determine it's operations with and without the development in the construction year of 2024. The NCHRP Report 285 provides guidelines for high level analysis of signalized intersections using default values for many of the variables in the HCM analysis and specifically examining critical lane groups. Critical lane groups represent the combination of conficting lane groups from opposing approaches that have the highest total demand. These critical lanes groups thus dictate the amount of green time required during each phase as well as the total cycle length required for the intersection. The analysis compares the critical lane groups with the intersection capacity per lane (1,500 vehicles per hour.) Based on a review of existing counts at the intersection, the critical volume to capacity ratio for the intersection is 0.28. With development, the ratio increases to 0.32. The NCHRP notes that ratios below 0.85 are under capacity.

B. TRAFFIC SAFTEY

Crashes

Crashes in the study area are summarized in Appendix D. With only four crashes associated with the intersection in a six-year period, the intersection currently falls below statewide averages for similar intersections.

Sight Distance

The public has expressed some concern about the existing sight distance at South Airpark Place and Raspberry Road due to a hill west of the intersection. DOT&PF's *Alaska Highway Preconstruction Manual* requires a minimum approach and departure sight triangles at stop-controlled intersections. The minimum sight distance for the South Airpark Place at Raspberry Road is 360 feet, based on a 45 MPH posted speed. Ideally, the intersection will also

Photo 3 – Sight Distance at South Airpark facing west

meet pedestrian sight requirements for crossing Raspberry Road. Pedestrian sight distance is the product of the crossing time. In Raspberry Road's case with a 24-foot wide crossing width between edge of travel way and a walking speed of 3.5 feet per second, the crossing width is 6.9 seconds. The computed desirable pedestrian sight distance across Raspberry Road at Sand Lake Road (west side) is 455 feet. Based on a review of existing asbuilts, the current sight distance is approximately 500 feet.

C. SITE CIRCULATION

On-site circulation is shown in Figure 2. Vehicles entering the site will circulate counterclockwise to the proposed parking lot. A passenger loading zone will be provided on the north side of the building. Freight trucks for the site will occur on the southern side of the building. No parking will be allowed directly adjacent to the driveway. No on-street maneuvers should be required for circulation on-site.

D. PEDESTRIAN CONSIDERATIONS

Sidewalks will be provided along the face of the building and bicycle racks will be provided at the entrance to allow for bicycle commuters. All pedestrian facilities will be compliant with the Americans with Disabilities Act guidelines. No pedestrian facilities are planned along the driveway.

A. SITE ACCESS

The proposed site access at South Airpark Place will have adequate sight distance and sufficient circulation to prevent parking automobiles from backing up into major streets. The intersection will be lit in accordance with MOA and ADOT standards. On-site pedestrian amenities will be compliant with local codes and ADA guidelines.

Photo 4 – Proposed site access location

B. CAPACITY & LEVEL OF SERVICE

Primary considerations are:

- The Level of Service at each intersection.
- Changes in LOS prompted by increased traffic from the development.
- Increased delay times in cases where the LOS drops.

The intersection of Raspberry Road and Sand Lake Road will operate at an acceptable level of service for the construction year (2024). However, the SB approach will see increased delay and a drop in level of service for the construction year. Consideration should be given to construction of a west bound right turn lane to increase the operation of the south bound approach and reduce disruption to west bound traffic from right turning traffic.

C. TRAFFIC SAFETY

Currently the intersection of Raspberry Road and Sand Lake Road operates below statewide crash averages for similar intersections. Sight distance to the west was reviewed and found to meet code requirements.

D. COMPLIANCE WITH LOCAL CODES

MOA TIA Policy states “The impact of a development on the transportation system depends on the number of trips generated and the routes taken to and from the development site.” Alaska Administrative Code (17 AAC 10.075) requires that the improvements to roads and intersections be made to maintain acceptable levels of service.

Improvements to the road network are necessary when:

1) the addition of site generated traffic causes a facility currently operating at an acceptable level of service to operate at an unacceptable level of service, of

2) the addition of site generated traffic causes delay at a facility operating at an unacceptable level of service to increase more than ten percent.

State and MOA TIA Policy requires maintaining an overall LOS D at all intersections impacted by the development. The Raspberry Road and Sand Lake Road intersection will operate at a LOS B or better during the construction year (2024.)

Count Data

Appendix A

CRW Engineering Group LLC (Anchorage)
3940 Arctic Blvd, Ste. 300

Anchorage, Alaska, United States 99503
907-562-3252 medge@crweng.com

Count Name: South AirPark Development - Raspberry & Carl Brady Dr.
Site Code:
Start Date: 03/02/2022

Turning Movement Data

Start Time	Carl Brady Dr. Southbound				Raspberry Rd. Westbound				Raspberry Rd. Eastbound				
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
12:00 PM	3	11	0	14	10	66	0	76	19	0	0	19	109
12:15 PM	2	5	0	7	3	60	0	63	20	1	0	21	91
12:30 PM	3	7	0	10	5	43	0	48	28	3	0	31	89
12:45 PM	3	1	0	4	6	48	0	54	24	2	0	26	84
Hourly Total	11	24	0	35	24	217	0	241	91	6	0	97	373
1:00 PM	1	3	0	4	8	47	0	55	25	0	0	25	84
1:15 PM	1	2	0	3	5	63	0	68	25	1	0	26	97
1:30 PM	3	5	0	8	1	57	0	58	24	0	0	24	90
1:45 PM	0	2	0	2	3	62	0	65	26	1	0	27	94
Hourly Total	5	12	0	17	17	229	0	246	100	2	0	102	365
2:00 PM	0	2	0	2	2	49	0	51	36	0	0	36	89
2:15 PM	0	2	0	2	2	70	0	72	22	1	0	23	97
2:30 PM	2	8	0	10	6	55	0	61	37	3	0	40	111
2:45 PM	2	5	0	7	4	63	0	67	29	2	2	33	107
Hourly Total	4	17	0	21	14	237	0	251	124	6	2	132	404
3:00 PM	1	6	0	7	1	67	0	68	31	1	0	32	107
3:15 PM	0	5	0	5	1	87	0	88	32	0	0	32	125
3:30 PM	2	7	0	9	3	113	1	117	34	0	0	34	160
3:45 PM	0	5	0	5	0	92	0	92	18	0	0	18	115
Hourly Total	3	23	0	26	5	359	1	365	115	1	0	116	507
4:00 PM	1	8	0	9	3	105	0	108	34	0	0	34	151
4:15 PM	0	4	0	4	1	114	0	115	22	1	0	23	142
4:30 PM	0	5	0	5	1	113	0	114	34	0	0	34	153
4:45 PM	2	2	0	4	2	161	0	163	30	0	1	31	198
Hourly Total	3	19	0	22	7	493	0	500	120	1	1	122	644
5:00 PM	3	9	0	12	3	211	0	214	41	11	0	52	278
5:15 PM	0	7	0	7	2	190	0	192	34	7	0	41	240
5:30 PM	1	3	0	4	0	206	0	206	22	6	4	32	242
5:45 PM	0	2	0	2	0	125	0	125	27	6	1	34	161
Hourly Total	4	21	0	25	5	732	0	737	124	30	5	159	921
6:00 PM	0	2	0	2	0	153	0	153	62	0	0	62	217
6:15 PM	0	1	0	1	2	116	0	118	86	0	1	87	206
6:30 PM	0	2	0	2	0	70	0	70	117	0	0	117	189
6:45 PM	2	3	0	5	1	59	0	60	145	1	0	146	211
Hourly Total	2	8	0	10	3	398	0	401	410	1	1	412	823
7:00 PM	1	1	0	2	2	55	0	57	106	0	0	106	165
7:15 PM	0	2	0	2	0	54	0	54	98	0	0	98	154
7:30 PM	0	4	0	4	0	51	0	51	27	0	0	27	82
7:45 PM	0	1	0	1	2	43	0	45	27	0	0	27	73

Hourly Total	1	8	0	9	4	203	0	207	258	0	0	258	474
8:00 PM	0	0	0	0	0	34	0	34	34	0	0	34	68
8:15 PM	0	0	0	0	0	47	0	47	25	0	1	26	73
8:30 PM	0	0	0	0	0	34	0	34	24	0	0	24	58
8:45 PM	0	0	0	0	0	29	0	29	30	0	0	30	59
Hourly Total	0	0	0	0	0	144	0	144	113	0	1	114	258
9:00 PM	0	1	0	1	0	31	0	31	11	0	0	11	43
9:15 PM	0	0	0	0	1	27	0	28	11	0	0	11	39
9:30 PM	0	3	0	3	0	25	0	25	6	0	0	6	34
9:45 PM	0	0	0	0	0	24	0	24	6	0	0	6	30
Hourly Total	0	4	0	4	1	107	0	108	34	0	0	34	146
10:00 PM	0	2	0	2	0	15	0	15	11	2	0	13	30
10:15 PM	0	0	0	0	1	7	0	8	3	0	0	3	11
10:30 PM	0	0	0	0	0	15	0	15	7	5	0	12	27
10:45 PM	0	1	0	1	0	15	0	15	3	2	0	5	21
Hourly Total	0	3	0	3	1	52	0	53	24	9	0	33	89
11:00 PM	1	2	0	3	0	7	0	7	3	1	0	4	14
11:15 PM	0	1	0	1	0	14	0	14	5	1	0	6	21
11:30 PM	0	3	0	3	0	6	0	6	1	2	0	3	12
11:45 PM	0	0	0	0	0	5	0	5	6	2	0	8	13
Hourly Total	1	6	0	7	0	32	0	32	15	6	0	21	60
12:00 AM	0	0	0	0	0	9	0	9	4	0	0	4	13
12:15 AM	1	0	0	1	0	7	0	7	5	0	0	5	13
12:30 AM	0	0	0	0	0	5	0	5	4	1	0	5	10
12:45 AM	0	0	0	0	0	6	0	6	3	0	0	3	9
Hourly Total	1	0	0	1	0	27	0	27	16	1	0	17	45
1:00 AM	0	0	0	0	0	5	0	5	12	0	0	12	17
1:15 AM	0	0	0	0	0	3	0	3	1	0	0	1	4
1:30 AM	0	0	0	0	0	5	0	5	2	2	0	4	9
1:45 AM	0	0	0	0	0	4	0	4	1	0	0	1	5
Hourly Total	0	0	0	0	0	17	0	17	16	2	0	18	35
2:00 AM	0	0	0	0	0	4	0	4	1	2	0	3	7
2:15 AM	0	0	0	0	0	3	0	3	0	0	0	0	3
2:30 AM	0	0	0	0	0	1	0	1	1	1	0	2	3
2:45 AM	0	0	0	0	0	5	0	5	0	0	0	0	5
Hourly Total	0	0	0	0	0	13	0	13	2	3	0	5	18
3:00 AM	0	1	0	1	0	3	0	3	0	1	0	1	5
3:15 AM	0	0	0	0	0	1	0	1	2	0	0	2	3
3:30 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
3:45 AM	0	0	0	0	0	4	0	4	1	0	0	1	5
Hourly Total	0	1	0	1	0	9	0	9	4	1	0	5	15
4:00 AM	0	0	0	0	0	3	0	3	1	1	1	3	6
4:15 AM	0	0	0	0	0	4	0	4	2	0	0	2	6
4:30 AM	0	0	0	0	0	11	0	11	2	2	0	4	15
4:45 AM	0	0	0	0	1	11	0	12	5	0	0	5	17
Hourly Total	0	0	0	0	1	29	0	30	10	3	1	14	44
5:00 AM	0	1	0	1	0	8	0	8	1	2	0	3	12
5:15 AM	0	0	0	0	0	10	0	10	2	3	0	5	15
5:30 AM	0	1	0	1	1	4	0	5	4	4	0	8	14
5:45 AM	1	1	0	2	4	17	0	21	6	4	0	10	33
Hourly Total	1	3	0	4	5	39	0	44	13	13	0	26	74
6:00 AM	0	0	0	0	2	10	0	12	6	0	0	6	18

6:15 AM	0	0	0	0	6	9	0	15	6	0	0	6	21
6:30 AM	0	2	0	2	8	13	0	21	6	0	0	6	29
6:45 AM	0	0	0	0	8	24	0	32	9	0	0	9	41
Hourly Total	0	2	0	2	24	56	0	80	27	0	0	27	109
7:00 AM	0	0	0	0	2	17	0	19	14	0	1	15	34
7:15 AM	0	0	0	0	0	24	0	24	9	0	1	10	34
7:30 AM	0	1	0	1	5	35	0	40	10	1	1	12	53
7:45 AM	1	0	0	1	10	29	0	39	13	1	2	16	56
Hourly Total	1	1	0	2	17	105	0	122	46	2	5	53	177
8:00 AM	0	0	0	0	8	32	0	40	10	1	0	11	51
8:15 AM	0	2	0	2	7	36	0	43	7	1	0	8	53
8:30 AM	0	1	0	1	3	52	0	55	26	1	1	28	84
8:45 AM	1	0	0	1	4	54	0	58	19	0	0	19	78
Hourly Total	1	3	0	4	22	174	0	196	62	3	1	66	266
9:00 AM	0	2	0	2	5	50	0	55	18	1	1	20	77
9:15 AM	2	1	0	3	3	32	0	35	11	1	0	12	50
9:30 AM	0	0	0	0	1	41	0	42	11	0	1	12	54
9:45 AM	0	2	0	2	4	41	0	45	13	0	1	14	61
Hourly Total	2	5	0	7	13	164	0	177	53	2	3	58	242
10:00 AM	0	2	0	2	4	30	0	34	18	1	0	19	55
10:15 AM	3	4	0	7	4	30	0	34	11	2	0	13	54
10:30 AM	0	2	0	2	3	49	0	52	15	5	0	20	74
10:45 AM	1	3	0	4	3	46	0	49	11	7	1	19	72
Hourly Total	4	11	0	15	14	155	0	169	55	15	1	71	255
11:00 AM	2	3	0	5	3	46	0	49	14	0	0	14	68
11:15 AM	1	1	0	2	1	31	0	32	17	0	1	18	52
11:30 AM	1	3	0	4	9	34	0	43	21	0	0	21	68
11:45 AM	1	10	0	11	8	47	0	55	21	2	0	23	89
Hourly Total	5	17	0	22	21	158	0	179	73	2	1	76	277
12:00 PM	1	7	0	8	6	72	0	78	24	2	0	26	112
12:15 PM	1	5	0	6	5	55	0	60	26	0	0	26	92
12:30 PM	0	4	0	4	7	51	0	58	25	1	0	26	88
12:45 PM	1	6	0	7	9	65	0	74	20	0	0	20	101
Hourly Total	3	22	0	25	27	243	0	270	95	3	0	98	393
1:00 PM	1	10	0	11	3	58	0	61	24	0	0	24	96
1:15 PM	0	1	0	1	1	50	0	51	20	1	0	21	73
1:30 PM	0	3	0	3	4	38	0	42	22	1	0	23	68
1:45 PM	0	5	0	5	2	51	0	53	29	0	1	30	88
Hourly Total	1	19	0	20	10	197	0	207	95	2	1	98	325
2:00 PM	0	2	0	2	2	53	0	55	30	0	0	30	87
2:15 PM	0	7	0	7	4	65	0	69	28	0	0	28	104
2:30 PM	0	3	0	3	3	58	0	61	27	1	0	28	92
2:45 PM	1	4	0	5	6	62	0	68	33	0	0	33	106
Hourly Total	1	16	0	17	15	238	0	253	118	1	0	119	389
3:00 PM	1	4	0	5	4	72	0	76	33	5	0	38	119
3:15 PM	0	6	0	6	2	76	0	78	27	6	1	34	118
3:30 PM	1	8	0	9	4	118	0	122	33	2	0	35	166
3:45 PM	1	4	0	5	0	92	0	92	31	5	0	36	133
Hourly Total	3	22	0	25	10	358	0	368	124	18	1	143	536
4:00 PM	2	10	0	12	3	83	0	86	21	0	0	21	119
4:15 PM	2	11	0	13	3	85	0	88	33	1	0	34	135
4:30 PM	0	9	0	9	3	86	0	89	27	0	0	27	125

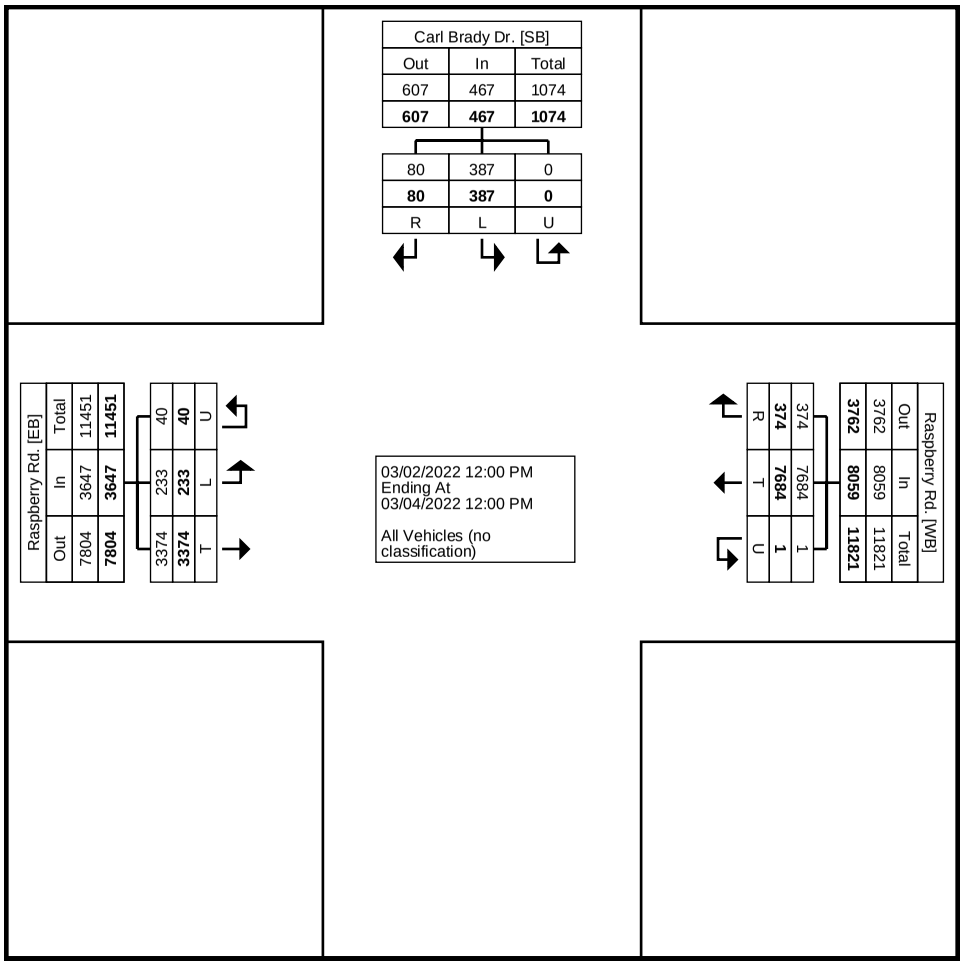
4:45 PM	3	9	0	12	3	117	0	120	43	1	1	45	177
Hourly Total	7	39	0	46	12	371	0	383	124	2	1	127	556
5:00 PM	0	7	0	7	0	99	0	99	33	1	0	34	140
5:15 PM	0	3	0	3	1	112	0	113	31	0	0	31	147
5:30 PM	0	1	0	1	1	101	0	102	32	0	1	33	136
5:45 PM	1	4	0	5	1	97	0	98	35	0	0	35	138
Hourly Total	1	15	0	16	3	409	0	412	131	1	1	133	561
6:00 PM	0	2	0	2	0	106	0	106	30	1	0	31	139
6:15 PM	0	1	0	1	0	93	0	93	36	0	0	36	130
6:30 PM	0	0	0	0	0	59	0	59	32	1	0	33	92
6:45 PM	1	1	0	2	0	57	0	57	26	0	0	26	85
Hourly Total	1	4	0	5	0	315	0	315	124	2	0	126	446
7:00 PM	2	2	0	4	0	52	0	52	22	0	0	22	78
7:15 PM	0	2	0	2	0	59	0	59	24	0	0	24	85
7:30 PM	0	0	0	0	1	35	0	36	47	0	0	47	83
7:45 PM	0	3	0	3	1	42	0	43	50	0	0	50	96
Hourly Total	2	7	0	9	2	188	0	190	143	0	0	143	342
8:00 PM	0	1	0	1	0	49	0	49	30	0	0	30	80
8:15 PM	0	0	0	0	0	34	0	34	18	0	0	18	52
8:30 PM	0	0	0	0	0	31	0	31	11	0	0	11	42
8:45 PM	0	0	0	0	1	29	0	30	12	0	0	12	42
Hourly Total	0	1	0	1	1	143	0	144	71	0	0	71	216
9:00 PM	0	1	0	1	0	27	0	27	11	0	0	11	39
9:15 PM	0	0	0	0	0	33	0	33	8	0	0	8	41
9:30 PM	0	1	0	1	0	28	0	28	9	0	0	9	38
9:45 PM	0	2	0	2	1	21	0	22	5	0	0	5	29
Hourly Total	0	4	0	4	1	109	0	110	33	0	0	33	147
10:00 PM	0	0	0	0	0	21	0	21	7	0	0	7	28
10:15 PM	0	1	0	1	1	23	0	24	1	0	0	1	26
10:30 PM	0	2	0	2	2	16	0	18	8	0	0	8	28
10:45 PM	0	3	0	3	2	17	0	19	3	2	0	5	27
Hourly Total	0	6	0	6	5	77	0	82	19	2	0	21	109
11:00 PM	0	1	0	1	1	16	0	17	9	3	0	12	30
11:15 PM	0	0	0	0	0	6	0	6	4	1	0	5	11
11:30 PM	0	5	0	5	2	10	0	12	2	0	0	2	19
11:45 PM	0	1	0	1	0	10	0	10	4	7	0	11	22
Hourly Total	0	7	0	7	3	42	0	45	19	11	0	30	82
12:00 AM	0	0	0	0	0	8	0	8	4	4	0	8	16
12:15 AM	0	0	0	0	0	5	0	5	3	1	0	4	9
12:30 AM	0	0	0	0	0	5	0	5	7	1	0	8	13
12:45 AM	0	0	0	0	0	4	0	4	5	1	0	6	10
Hourly Total	0	0	0	0	0	22	0	22	19	7	0	26	48
1:00 AM	0	0	0	0	0	4	0	4	10	2	1	13	17
1:15 AM	0	0	0	0	0	6	0	6	2	0	0	2	8
1:30 AM	0	0	0	0	0	6	0	6	3	0	0	3	9
1:45 AM	0	0	0	0	0	1	0	1	0	1	0	1	2
Hourly Total	0	0	0	0	0	17	0	17	15	3	1	19	36
2:00 AM	0	1	0	1	0	1	0	1	4	0	0	4	6
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	3	0	3	1	0	0	1	4
2:45 AM	0	0	0	0	0	3	0	3	1	0	0	1	4
Hourly Total	0	1	0	1	0	7	0	7	6	0	0	6	14

3:00 AM	0	0	0	0	0	2	0	2	0	2	0	2	4
3:15 AM	0	0	0	0	0	1	0	1	2	0	0	2	3
3:30 AM	0	0	0	0	0	3	0	3	2	1	0	3	6
3:45 AM	0	0	0	0	0	8	0	8	1	2	0	3	11
Hourly Total	0	0	0	0	0	14	0	14	5	5	0	10	24
4:00 AM	0	0	0	0	0	2	0	2	3	0	0	3	5
4:15 AM	0	0	0	0	0	7	0	7	0	0	0	0	7
4:30 AM	0	0	0	0	0	5	0	5	1	0	0	1	6
4:45 AM	0	0	0	0	0	7	0	7	0	0	0	0	7
Hourly Total	0	0	0	0	0	21	0	21	4	0	0	4	25
5:00 AM	0	0	0	0	0	7	0	7	3	0	0	3	10
5:15 AM	0	0	0	0	1	15	0	16	1	0	0	1	17
5:30 AM	0	0	0	0	0	6	0	6	7	0	0	7	13
5:45 AM	0	1	0	1	2	9	0	11	4	0	0	4	16
Hourly Total	0	1	0	1	3	37	0	40	15	0	0	15	56
6:00 AM	0	0	0	0	2	5	0	7	6	0	0	6	13
6:15 AM	0	1	0	1	1	9	0	10	4	0	0	4	15
6:30 AM	0	0	0	0	5	12	0	17	4	0	2	6	23
6:45 AM	0	0	0	0	7	17	0	24	4	0	0	4	28
Hourly Total	0	1	0	1	15	43	0	58	18	0	2	20	79
7:00 AM	1	2	0	3	7	14	0	21	6	0	0	6	30
7:15 AM	0	0	0	0	4	22	0	26	9	0	0	9	35
7:30 AM	0	0	0	0	6	23	0	29	7	0	1	8	37
7:45 AM	0	1	0	1	5	38	0	43	18	0	0	18	62
Hourly Total	1	3	0	4	22	97	0	119	40	0	1	41	164
8:00 AM	0	0	0	0	4	23	0	27	9	0	0	9	36
8:15 AM	0	2	0	2	6	29	0	35	10	0	0	10	47
8:30 AM	0	0	0	0	4	34	0	38	15	1	1	17	55
8:45 AM	0	0	0	0	2	43	0	45	21	0	0	21	66
Hourly Total	0	2	0	2	16	129	0	145	55	1	1	57	204
9:00 AM	2	1	0	3	1	39	0	40	9	8	1	18	61
9:15 AM	1	1	0	2	2	37	0	39	13	13	1	27	68
9:30 AM	0	2	0	2	0	35	0	35	9	17	0	26	63
9:45 AM	0	3	0	3	5	40	0	45	19	2	0	21	69
Hourly Total	3	7	0	10	8	151	0	159	50	40	2	92	261
10:00 AM	1	4	0	5	1	33	0	34	13	5	0	18	57
10:15 AM	2	2	0	4	3	29	0	32	19	4	0	23	59
10:30 AM	2	3	0	5	2	34	0	36	23	3	0	26	67
10:45 AM	1	3	0	4	5	46	0	51	19	11	3	33	88
Hourly Total	6	12	0	18	11	142	0	153	74	23	3	100	271
11:00 AM	1	2	0	3	4	42	0	46	18	1	1	20	69
11:15 AM	1	1	0	2	2	37	0	39	13	1	0	14	55
11:30 AM	0	5	0	5	2	50	0	52	26	0	1	27	84
11:45 AM	0	2	0	2	4	36	0	40	15	1	2	18	60
Hourly Total	2	10	0	12	12	165	0	177	72	3	4	79	268
Grand Total	80	387	0	467	374	7684	1	8059	3374	233	40	3647	12173
Approach %	17.1	82.9	0.0	-	4.6	95.3	0.0	-	92.5	6.4	1.1	-	-
Total %	0.7	3.2	0.0	3.8	3.1	63.1	0.0	66.2	27.7	1.9	0.3	30.0	-
All Vehicles (no classification)	80	387	0	467	374	7684	1	8059	3374	233	40	3647	12173
% All Vehicles (no classification)	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

CRW Engineering Group LLC (Anchorage)
3940 Arctic Blvd, Ste. 300

Anchorage, Alaska, United States 99503
907-562-3252 medge@crweng.com

Count Name: South AirPark Development - Raspberry & Carl Brady Dr.
Site Code:
Start Date: 03/02/2022



Turning Movement Data Plot

CRW Engineering Group LLC (Anchorage)
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Anchorage, Alaska, United States 99503
907-562-3252 medge@crweng.com

Count Name: South AirPark Development - Raspberry & Carl Brady Dr.
Site Code:
Start Date: 03/02/2022

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Carl Brady Dr. Southbound				Raspberry Rd. Westbound				Raspberry Rd. Eastbound				
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
4:45 PM	2	2	0	4	2	161	0	163	30	0	1	31	198
5:00 PM	3	9	0	12	3	211	0	214	41	11	0	52	278
5:15 PM	0	7	0	7	2	190	0	192	34	7	0	41	240
5:30 PM	1	3	0	4	0	206	0	206	22	6	4	32	242
Total	6	21	0	27	7	768	0	775	127	24	5	156	958
Approach %	22.2	77.8	0.0	-	0.9	99.1	0.0	-	81.4	15.4	3.2	-	-
Total %	0.6	2.2	0.0	2.8	0.7	80.2	0.0	80.9	13.3	2.5	0.5	16.3	-
PHF	0.500	0.583	0.000	0.563	0.583	0.910	0.000	0.905	0.774	0.545	0.313	0.750	0.862
All Vehicles (no classification)	6	21	0	27	7	768	0	775	127	24	5	156	958
% All Vehicles (no classification)	100.0	100.0	-	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0

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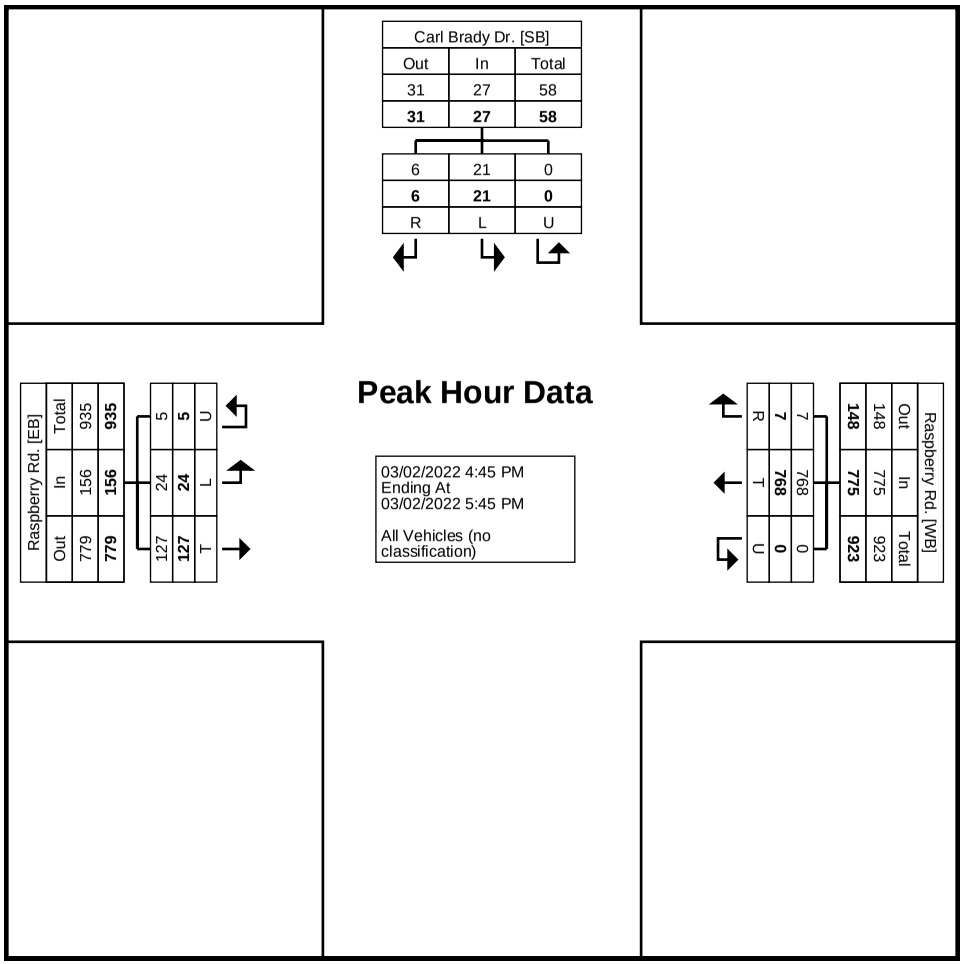
Count Name: South AirPark Development - Raspberry & Carl Brady Dr.
Site Code:
Start Date: 03/02/2022



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

CRW Engineering Group LLC (Anchorage)
3940 Arctic Blvd, Ste. 300

Anchorage, Alaska, United States 99503
907-562-3252 medge@crweng.com

Count Name: South AirPark Development - Raspberry & Carl Brady Dr.
Site Code:
Start Date: 03/02/2022

Turning Movement Peak Hour Data (8:15 AM)

Start Time	Carl Brady Dr. Southbound				Raspberry Rd. Westbound				Raspberry Rd. Eastbound				
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
8:15 AM	0	2	0	2	7	36	0	43	7	1	0	8	53
8:30 AM	0	1	0	1	3	52	0	55	26	1	1	28	84
8:45 AM	1	0	0	1	4	54	0	58	19	0	0	19	78
9:00 AM	0	2	0	2	5	50	0	55	18	1	1	20	77
Total	1	5	0	6	19	192	0	211	70	3	2	75	292
Approach %	16.7	83.3	0.0	-	9.0	91.0	0.0	-	93.3	4.0	2.7	-	-
Total %	0.3	1.7	0.0	2.1	6.5	65.8	0.0	72.3	24.0	1.0	0.7	25.7	-
PHF	0.250	0.625	0.000	0.750	0.679	0.889	0.000	0.909	0.673	0.750	0.500	0.670	0.869
All Vehicles (no classification)	1	5	0	6	19	192	0	211	70	3	2	75	292
% All Vehicles (no classification)	100.0	100.0	-	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0

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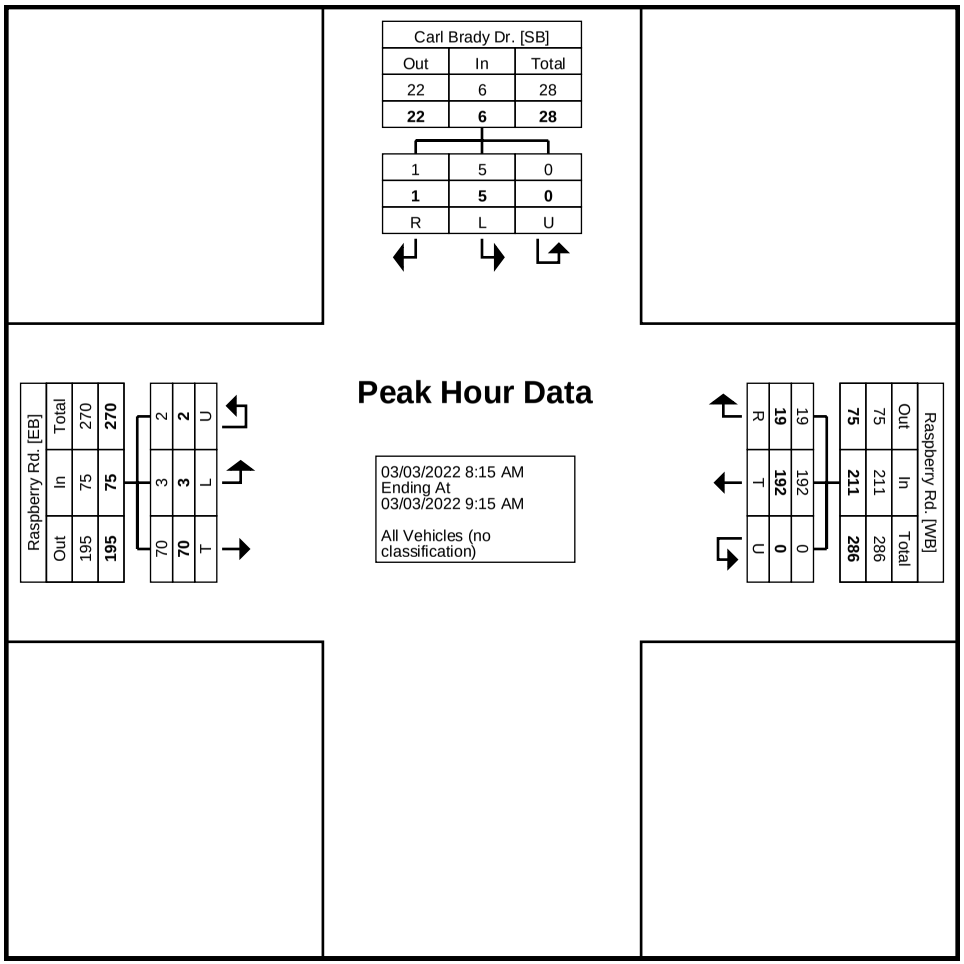

Turning Movement Peak Hour Data Plot (8:15 AM)

CRW Engineering Group LLC (Anchorage)
3940 Arctic Blvd, Ste. 300

Anchorage, Alaska, United States 99503
907-562-3252 medge@crweng.com

Count Name: South AirPark Development - Raspberry & Carl Brady Dr.
Site Code:
Start Date: 03/02/2022

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Carl Brady Dr. Southbound				Raspberry Rd. Westbound				Raspberry Rd. Eastbound				
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
4:45 PM	3	9	0	12	3	117	0	120	43	1	1	45	177
5:00 PM	0	7	0	7	0	99	0	99	33	1	0	34	140
5:15 PM	0	3	0	3	1	112	0	113	31	0	0	31	147
5:30 PM	0	1	0	1	1	101	0	102	32	0	1	33	136
Total	3	20	0	23	5	429	0	434	139	2	2	143	600
Approach %	13.0	87.0	0.0	-	1.2	98.8	0.0	-	97.2	1.4	1.4	-	-
Total %	0.5	3.3	0.0	3.8	0.8	71.5	0.0	72.3	23.2	0.3	0.3	23.8	-
PHF	0.250	0.556	0.000	0.479	0.417	0.917	0.000	0.904	0.808	0.500	0.500	0.794	0.847
All Vehicles (no classification)	3	20	0	23	5	429	0	434	139	2	2	143	600
% All Vehicles (no classification)	100.0	100.0	-	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0

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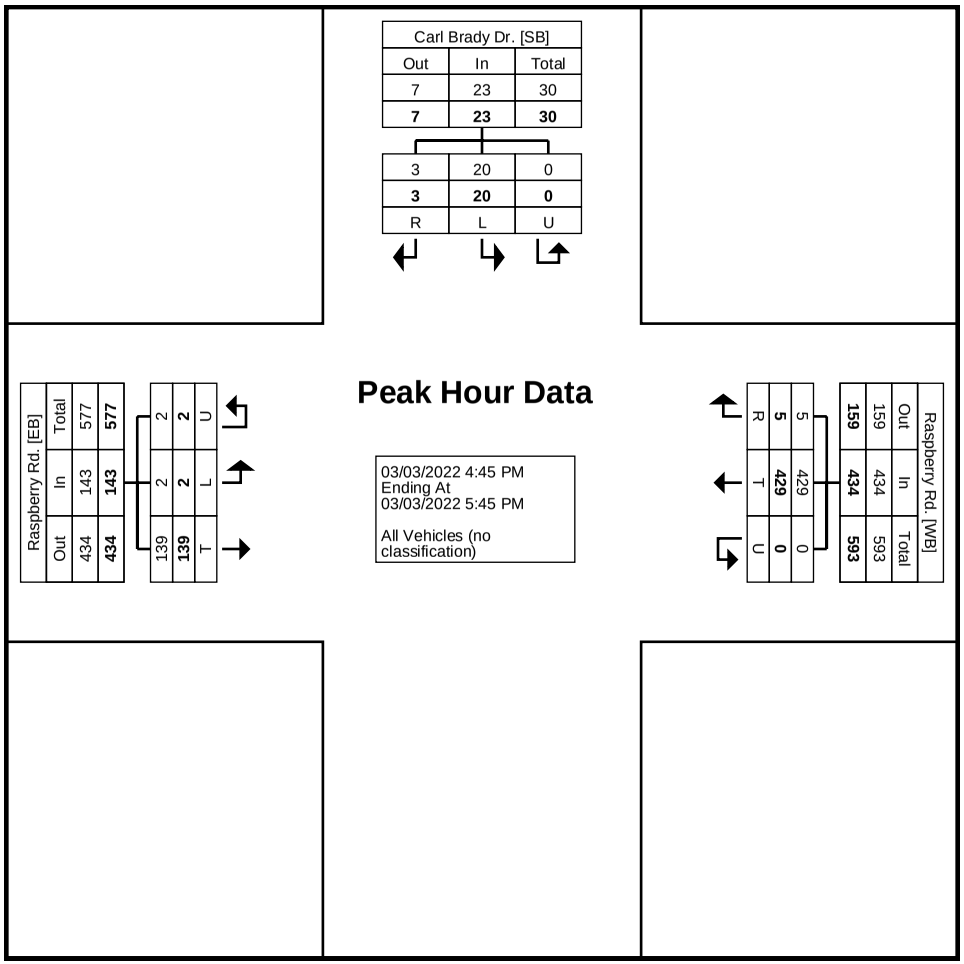
Count Name: South AirPark Development - Raspberry & Carl Brady Dr.
Site Code:
Start Date: 03/02/2022



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

CRW Engineering Group LLC (Anchorage)
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Anchorage, Alaska, United States 99503
907-562-3252 medge@crweng.com

Count Name: South AirPark Development - Raspberry & Carl Brady Dr.
Site Code:
Start Date: 03/02/2022

Turning Movement Peak Hour Data (10:45 AM)

Start Time	Carl Brady Dr. Southbound				Raspberry Rd. Westbound				Raspberry Rd. Eastbound				
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
10:45 AM	1	3	0	4	5	46	0	51	19	11	3	33	88
11:00 AM	1	2	0	3	4	42	0	46	18	1	1	20	69
11:15 AM	1	1	0	2	2	37	0	39	13	1	0	14	55
11:30 AM	0	5	0	5	2	50	0	52	26	0	1	27	84
Total	3	11	0	14	13	175	0	188	76	13	5	94	296
Approach %	21.4	78.6	0.0	-	6.9	93.1	0.0	-	80.9	13.8	5.3	-	-
Total %	1.0	3.7	0.0	4.7	4.4	59.1	0.0	63.5	25.7	4.4	1.7	31.8	-
PHF	0.750	0.550	0.000	0.700	0.650	0.875	0.000	0.904	0.731	0.295	0.417	0.712	0.841
All Vehicles (no classification)	3	11	0	14	13	175	0	188	76	13	5	94	296
% All Vehicles (no classification)	100.0	100.0	-	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0

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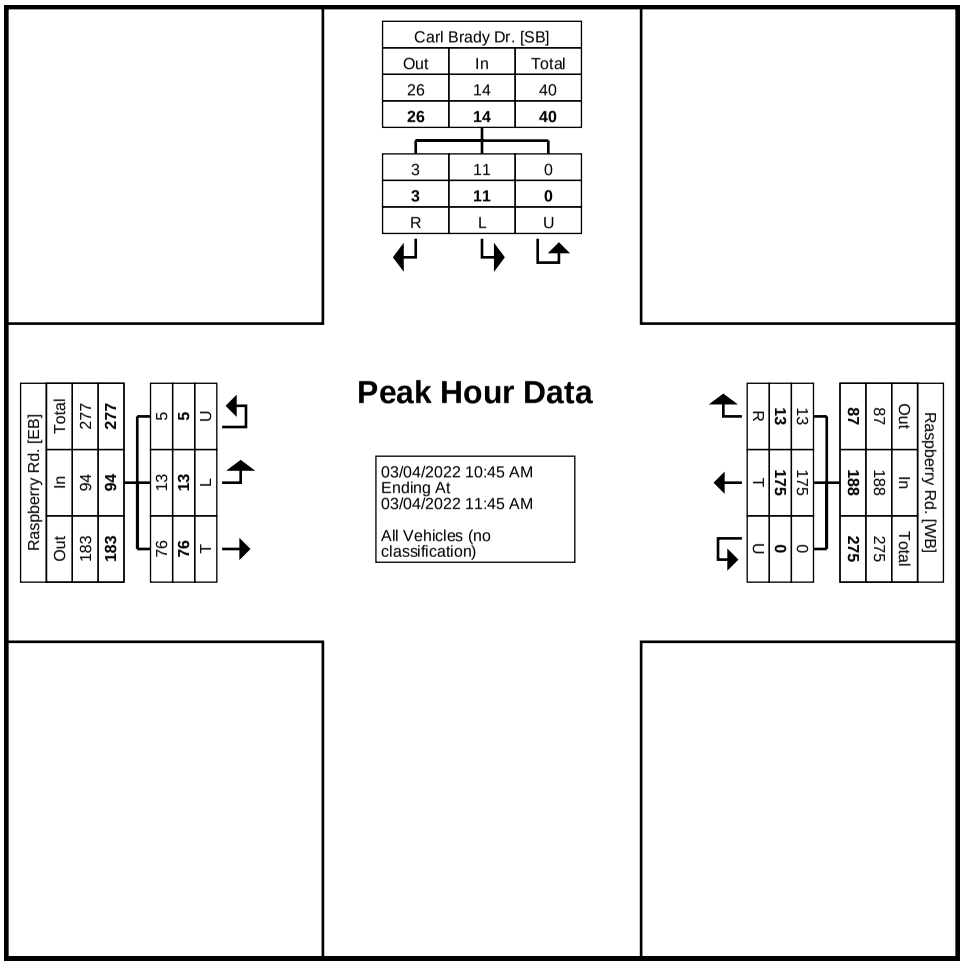
Count Name: South AirPark Development - Raspberry & Carl Brady Dr.
Site Code:
Start Date: 03/02/2022



Turning Movement Peak Hour Data Plot (10:45 AM)

CRW Engineering Group LLC (Anchorage)
3940 Arctic Blvd, Ste. 300

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907-562-3252 medge@crweng.com

I accidentally chose turn on red, but there is no signalization, please continue the study with stop sign at Carl Brady Dr.

CRW Engineering Group LLC (Anchorage)
3940 Arctic Blvd, Ste. 300

Anchorage, Alaska, United States 99503
907-562-3252 medge@crweng.com

Count Name: South AirPark Development - Raspberry & Sandlake
Site Code:
Start Date: 02/23/2022

Turning Movement Data

Start Time	South Airpark Pl. Southbound					Raspberry Rd. Westbound					Sandlake Rd. Northbound					Raspberry Rd. Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
12:00 PM	0	2	14	0	16	7	18	34	0	59	0	4	1	0	5	2	6	0	0	8	88
12:15 PM	1	1	10	0	12	20	8	23	0	51	0	4	3	0	7	0	14	0	0	14	84
12:30 PM	0	0	18	0	18	12	16	33	2	63	1	3	2	0	6	3	18	0	0	21	108
12:45 PM	0	0	13	0	13	13	13	29	0	55	1	5	3	0	9	3	11	0	0	14	91
Hourly Total	1	3	55	0	59	52	55	119	2	228	2	16	9	0	27	8	49	0	0	57	371
1:00 PM	0	1	10	0	11	5	10	29	0	44	1	3	6	0	10	2	18	0	0	20	85
1:15 PM	0	1	8	0	9	18	17	24	1	60	1	1	4	0	6	3	7	0	0	10	85
1:30 PM	0	3	7	0	10	7	19	24	2	52	1	1	2	0	4	2	10	0	0	12	78
1:45 PM	0	2	13	0	15	12	13	26	1	52	1	1	5	0	7	4	22	0	0	26	100
Hourly Total	0	7	38	0	45	42	59	103	4	208	4	6	17	0	27	11	57	0	0	68	348
2:00 PM	0	2	13	0	15	6	10	23	0	39	0	2	2	0	4	4	16	0	0	20	78
2:15 PM	0	3	5	0	8	11	13	37	1	62	0	1	4	0	5	6	12	0	0	18	93
2:30 PM	0	1	9	0	10	9	16	48	0	73	1	0	5	0	6	1	11	0	0	12	101
2:45 PM	0	2	9	0	11	17	9	24	0	50	2	4	1	0	7	1	19	0	0	20	88
Hourly Total	0	8	36	0	44	43	48	132	1	224	3	7	12	0	22	12	58	0	0	70	360
3:00 PM	0	4	20	0	24	9	13	36	0	58	1	2	4	0	7	3	9	1	0	13	102
3:15 PM	0	2	20	0	22	7	17	39	1	64	1	4	5	0	10	3	13	0	0	16	112
3:30 PM	0	3	16	0	19	13	19	76	1	109	0	1	4	0	5	8	22	0	0	30	163
3:45 PM	0	2	11	0	13	6	17	52	0	75	0	2	5	0	7	2	13	0	0	15	110
Hourly Total	0	11	67	0	78	35	66	203	2	306	2	9	18	0	29	16	57	1	0	74	487
4:00 PM	0	4	14	0	18	6	24	62	0	92	0	1	7	0	8	4	14	1	0	19	137
4:15 PM	1	1	20	0	22	5	21	62	0	88	1	1	6	0	8	2	13	0	0	15	133
4:30 PM	0	2	11	0	13	5	17	57	0	79	0	0	6	0	6	5	10	0	0	15	113
4:45 PM	0	3	10	0	13	13	17	77	0	107	0	0	3	0	3	3	12	0	0	15	138
Hourly Total	1	10	55	0	66	29	79	258	0	366	1	2	22	0	25	14	49	1	0	64	521
5:00 PM	0	0	15	0	15	3	22	80	0	105	0	0	1	0	1	2	18	0	0	20	141
5:15 PM	0	5	15	0	20	3	19	104	1	127	0	2	3	0	5	0	18	0	0	18	170
5:30 PM	0	3	12	0	15	5	18	87	1	111	2	0	2	0	4	3	17	0	0	20	150
5:45 PM	0	2	4	0	6	1	26	63	0	90	1	0	7	0	8	9	15	0	0	24	128
Hourly Total	0	10	46	0	56	12	85	334	2	433	3	2	13	0	18	14	68	0	0	82	589
6:00 PM	0	1	17	0	18	2	63	59	0	124	0	0	11	0	11	6	10	0	0	16	169
6:15 PM	0	2	3	0	5	6	57	51	0	114	0	0	7	0	7	6	11	0	0	17	143
6:30 PM	0	0	11	0	11	1	16	37	0	54	0	0	5	0	5	2	31	0	0	33	103
6:45 PM	0	1	7	0	8	0	9	39	1	49	0	0	4	0	4	3	14	0	0	17	78
Hourly Total	0	4	38	0	42	9	145	186	1	341	0	0	27	0	27	17	66	0	0	83	493
7:00 PM	0	0	3	0	3	2	6	28	0	36	0	0	2	0	2	0	10	0	0	10	51
7:15 PM	0	1	0	0	1	2	22	46	0	70	0	0	3	0	3	1	9	0	0	10	84
7:30 PM	0	0	6	0	6	3	8	30	0	41	0	0	0	0	0	6	46	0	0	52	99
7:45 PM	0	0	7	0	7	5	4	33	1	43	0	0	2	0	2	7	43	0	0	50	102

Hourly Total	0	1	16	0	17	12	40	137	1	190	0	0	7	0	7	14	108	0	0	122	336
8:00 PM	0	0	3	0	3	1	4	18	0	23	0	0	1	0	1	0	17	0	0	17	44
8:15 PM	0	1	3	0	4	1	5	26	0	32	0	0	4	0	4	5	28	0	0	33	73
8:30 PM	0	0	2	0	2	2	5	28	0	35	0	0	2	0	2	2	7	0	0	9	48
8:45 PM	0	1	0	0	1	1	5	24	0	30	0	1	3	0	4	1	19	0	0	20	55
Hourly Total	0	2	8	0	10	5	19	96	0	120	0	1	10	0	11	8	71	0	0	79	220
9:00 PM	0	0	5	0	5	2	3	31	0	36	0	0	0	0	0	0	5	0	0	5	46
9:15 PM	0	0	5	0	5	1	1	26	0	28	0	1	1	0	2	1	3	0	0	4	39
9:30 PM	0	1	2	0	3	2	4	26	0	32	0	0	0	0	0	0	4	0	0	4	39
9:45 PM	0	0	4	0	4	2	3	23	0	28	0	0	1	0	1	0	2	0	0	2	35
Hourly Total	0	1	16	0	17	7	11	106	0	124	0	1	2	0	3	1	14	0	0	15	159
10:00 PM	0	0	5	0	5	1	1	11	0	13	0	0	1	0	1	0	0	0	0	0	19
10:15 PM	0	0	1	0	1	1	2	9	0	12	0	1	0	0	1	0	3	0	0	3	17
10:30 PM	0	1	0	0	1	1	2	23	0	26	1	0	1	0	2	0	4	0	0	4	33
10:45 PM	0	0	0	0	0	1	2	10	0	13	0	0	0	0	0	1	5	0	0	6	19
Hourly Total	0	1	6	0	7	4	7	53	0	64	1	1	2	0	4	1	12	0	0	13	88
11:00 PM	0	1	4	0	5	1	0	12	0	13	1	0	0	0	1	0	1	0	0	1	20
11:15 PM	0	0	2	0	2	2	0	8	0	10	0	0	0	0	0	0	0	0	0	0	12
11:30 PM	0	0	1	0	1	3	1	6	0	10	0	0	0	0	0	0	0	0	0	0	11
11:45 PM	0	0	4	0	4	2	0	6	0	8	0	0	0	0	0	1	0	0	0	1	13
Hourly Total	0	1	11	0	12	8	1	32	0	41	1	0	0	0	1	1	1	0	0	2	56
12:00 AM	0	0	4	0	4	1	1	7	0	9	0	0	0	0	0	0	3	0	0	3	16
12:15 AM	0	0	2	0	2	0	0	9	0	9	0	0	1	0	1	0	1	0	0	1	13
12:30 AM	0	0	2	0	2	0	0	8	0	8	0	0	0	0	0	0	0	0	0	0	10
12:45 AM	0	0	4	0	4	1	0	8	0	9	0	0	0	0	0	0	0	0	0	0	13
Hourly Total	0	0	12	0	12	2	1	32	0	35	0	0	1	0	1	0	4	0	0	4	52
1:00 AM	0	1	11	0	12	2	0	5	0	7	0	0	0	0	0	0	0	0	0	0	19
1:15 AM	0	0	1	0	1	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	5
1:30 AM	1	0	0	0	1	1	1	5	0	7	0	0	0	0	0	0	0	0	0	0	8
1:45 AM	0	0	0	0	0	1	0	2	0	3	0	0	0	0	0	2	0	0	0	2	5
Hourly Total	1	1	12	0	14	4	1	16	0	21	0	0	0	0	0	2	0	0	0	2	37
2:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:15 AM	0	0	0	0	0	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	6
2:30 AM	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	2
2:45 AM	0	0	1	0	1	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	3
Hourly Total	0	0	2	0	2	2	0	8	0	10	0	0	0	0	0	0	0	0	0	0	12
3:00 AM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	2
3:15 AM	0	0	4	0	4	0	0	1	0	1	0	1	0	0	1	0	0	1	0	1	7
3:30 AM	0	0	3	1	4	2	0	1	0	3	1	5	0	0	6	0	0	0	0	0	13
3:45 AM	0	0	0	1	1	3	1	0	0	4	0	0	0	0	0	0	0	0	0	0	5
Hourly Total	0	0	7	2	9	5	1	4	0	10	1	6	0	0	7	0	0	1	0	1	27
4:00 AM	0	0	1	0	1	2	0	1	0	3	0	1	0	0	1	0	0	0	0	0	5
4:15 AM	0	0	0	0	0	1	0	0	1	2	0	1	0	0	1	1	0	0	0	1	4
4:30 AM	0	0	1	0	1	7	1	3	0	11	0	1	0	0	1	0	1	0	0	1	14
4:45 AM	0	0	2	0	2	5	2	4	0	11	0	1	1	0	2	0	1	0	0	1	16
Hourly Total	0	0	4	0	4	15	3	8	1	27	0	4	1	0	5	1	2	0	0	3	39
5:00 AM	0	0	1	0	1	2	3	4	0	9	0	2	0	0	2	0	1	0	0	1	13
5:15 AM	0	0	0	0	0	10	4	5	0	19	0	0	0	0	0	0	0	0	0	0	19
5:30 AM	0	0	1	0	1	4	0	2	0	6	0	0	0	0	0	0	2	0	0	2	9
5:45 AM	0	0	1	0	1	8	0	8	0	16	0	2	0	0	2	0	1	0	0	1	20
Hourly Total	0	0	3	0	3	24	7	19	0	50	0	4	0	0	4	0	4	0	0	4	61
6:00 AM	0	0	1	0	1	2	1	6	0	9	0	1	0	0	1	1	7	0	0	8	19

6:15 AM	0	0	2	0	2	7	1	4	0	12	0	0	0	0	0	1	2	0	0	3	17
6:30 AM	0	1	4	0	5	6	1	10	0	17	0	1	1	0	2	0	2	0	0	2	26
6:45 AM	0	0	0	0	0	14	3	13	0	30	0	2	1	0	3	1	2	0	0	3	36
Hourly Total	0	1	7	0	8	29	6	33	0	68	0	4	2	0	6	3	13	0	0	16	98
7:00 AM	0	0	1	0	1	7	4	14	0	25	1	2	1	0	4	3	15	0	0	18	48
7:15 AM	0	0	2	0	2	3	5	24	0	32	1	2	2	0	5	2	7	0	0	9	48
7:30 AM	0	0	2	0	2	13	4	11	0	28	0	3	3	0	6	0	12	0	0	12	48
7:45 AM	0	1	1	0	2	14	7	27	0	48	0	2	0	0	2	0	14	0	0	14	66
Hourly Total	0	1	6	0	7	37	20	76	0	133	2	9	6	0	17	5	48	0	0	53	210
8:00 AM	0	1	4	0	5	10	3	32	0	45	1	3	1	0	5	0	7	0	0	7	62
8:15 AM	0	0	5	0	5	14	4	32	0	50	0	1	1	0	2	3	5	0	0	8	65
8:30 AM	0	1	4	0	5	11	6	26	1	44	1	2	2	0	5	3	10	1	0	14	68
8:45 AM	0	1	3	0	4	13	5	43	0	61	0	2	0	0	2	0	4	0	0	4	71
Hourly Total	0	3	16	0	19	48	18	133	1	200	2	8	4	0	14	6	26	1	0	33	266
9:00 AM	0	0	6	0	6	13	9	29	0	51	1	1	2	0	4	1	3	0	0	4	65
9:15 AM	0	1	4	0	5	8	10	21	0	39	0	0	4	0	4	1	2	0	0	3	51
9:30 AM	0	0	3	0	3	11	10	12	0	33	1	0	4	0	5	2	7	0	0	9	50
9:45 AM	0	0	4	0	4	13	6	21	0	40	0	0	1	0	1	2	7	0	0	9	54
Hourly Total	0	1	17	0	18	45	35	83	0	163	2	1	11	0	14	6	19	0	0	25	220
10:00 AM	0	1	11	0	12	11	9	17	0	37	1	0	1	0	2	0	12	0	0	12	63
10:15 AM	0	0	17	0	17	11	11	17	0	39	0	2	3	0	5	1	3	0	0	4	65
10:30 AM	0	2	6	0	8	8	9	18	0	35	0	0	1	0	1	1	8	0	0	9	53
10:45 AM	0	1	1	0	2	10	8	23	0	41	0	0	1	0	1	1	7	0	0	8	52
Hourly Total	0	4	35	0	39	40	37	75	0	152	1	2	6	0	9	3	30	0	0	33	233
11:00 AM	0	3	11	0	14	11	13	28	1	53	0	2	0	0	2	0	11	0	0	11	80
11:15 AM	1	1	10	0	12	9	12	23	0	44	0	0	1	0	1	3	13	0	0	16	73
11:30 AM	0	3	12	0	15	8	7	25	1	41	0	3	2	0	5	3	12	0	0	15	76
11:45 AM	0	4	8	0	12	14	11	25	0	50	1	0	6	0	7	3	14	0	0	17	86
Hourly Total	1	11	41	0	53	42	43	101	2	188	1	5	9	0	15	9	50	0	0	59	315
12:00 PM	1	3	14	0	18	11	6	24	0	41	0	3	2	0	5	2	12	0	0	14	78
12:15 PM	0	2	6	0	8	8	13	25	0	46	0	1	4	0	5	1	15	0	0	16	75
12:30 PM	0	5	13	0	18	8	10	40	0	58	2	2	3	0	7	1	14	0	0	15	98
12:45 PM	0	1	6	0	7	6	14	25	0	45	1	4	4	0	9	4	6	0	0	10	71
Hourly Total	1	11	39	0	51	33	43	114	0	190	3	10	13	0	26	8	47	0	0	55	322
1:00 PM	0	1	10	0	11	9	20	41	0	70	0	7	3	0	10	3	8	0	0	11	102
1:15 PM	0	1	6	0	7	8	10	29	0	47	0	1	1	0	2	1	13	0	0	14	70
1:30 PM	0	4	10	0	14	8	10	29	0	47	2	1	4	0	7	1	12	0	0	13	81
1:45 PM	0	1	13	0	14	14	10	27	0	51	0	5	3	0	8	3	13	0	0	16	89
Hourly Total	0	7	39	0	46	39	50	126	0	215	2	14	11	0	27	8	46	0	0	54	342
2:00 PM	0	0	14	0	14	10	12	28	0	50	0	0	3	0	3	0	9	0	0	9	76
2:15 PM	0	2	4	0	6	9	8	38	0	55	2	1	2	0	5	2	20	0	0	22	88
2:30 PM	0	2	6	0	8	12	9	33	0	54	1	2	5	0	8	2	18	0	0	20	90
2:45 PM	0	2	12	0	14	20	11	41	1	73	0	0	3	0	3	3	28	0	0	31	121
Hourly Total	0	6	36	0	42	51	40	140	1	232	3	3	13	0	19	7	75	0	0	82	375
3:00 PM	0	2	14	0	16	5	17	47	1	70	1	2	5	0	8	3	8	0	0	11	105
3:15 PM	0	1	18	0	19	7	14	41	0	62	0	2	4	0	6	3	15	0	0	18	105
3:30 PM	0	1	18	0	19	8	22	72	1	103	0	1	5	0	6	2	7	0	0	9	137
3:45 PM	0	1	19	0	20	8	18	49	0	75	0	1	3	0	4	1	13	0	0	14	113
Hourly Total	0	5	69	0	74	28	71	209	2	310	1	6	17	0	24	9	43	0	0	52	460
4:00 PM	1	2	23	0	26	10	22	60	0	92	1	2	10	0	13	5	8	1	0	14	145
4:15 PM	0	3	17	0	20	3	23	66	0	92	0	2	4	0	6	4	18	0	0	22	140
4:30 PM	0	3	10	0	13	6	13	78	0	97	0	0	4	0	4	6	18	0	0	24	138

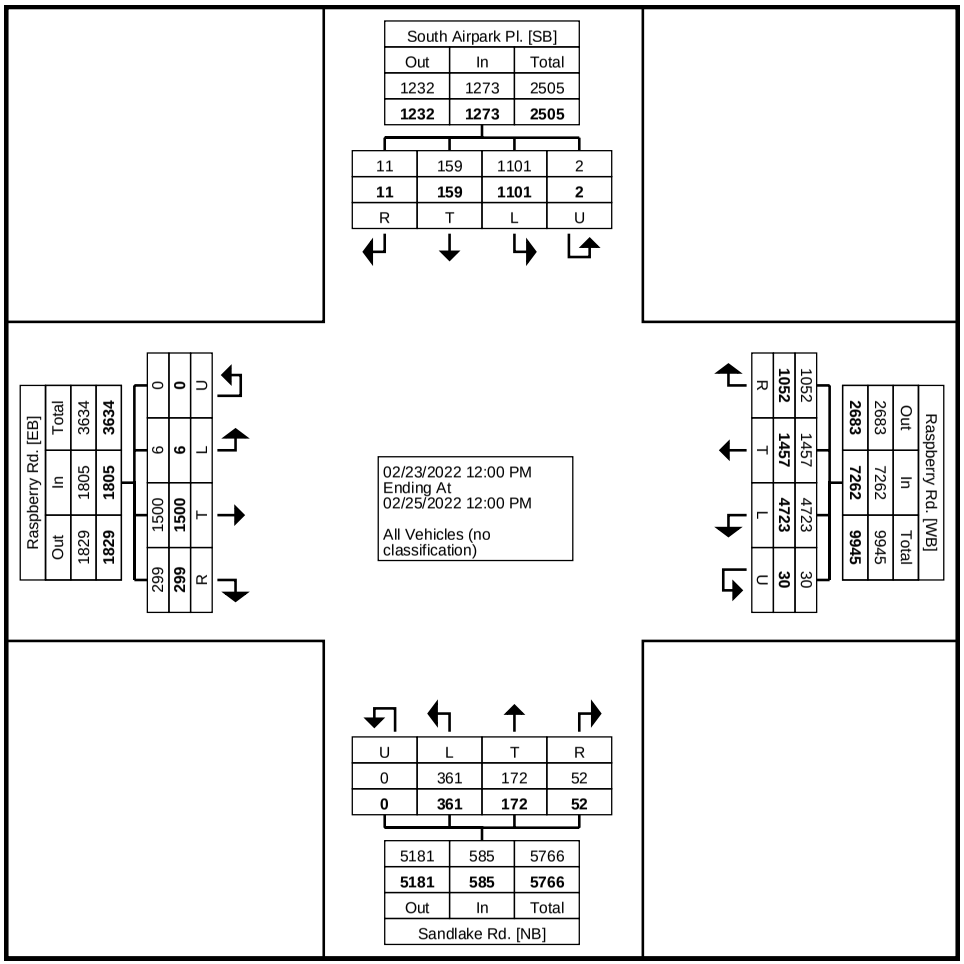
4:45 PM	0	4	13	0	17	9	21	58	0	88	0	0	7	0	7	4	10	0	0	14	126
Hourly Total	1	12	63	0	76	28	79	262	0	369	1	4	25	0	30	19	54	1	0	74	549
5:00 PM	0	1	12	0	13	3	19	96	0	118	0	0	1	0	1	1	23	0	0	24	156
5:15 PM	0	3	15	0	18	2	22	72	0	96	0	1	2	0	3	2	22	0	0	24	141
5:30 PM	0	1	9	0	10	3	14	79	1	97	0	0	4	0	4	9	21	0	0	30	141
5:45 PM	0	1	9	0	10	1	20	56	0	77	0	1	6	0	7	1	13	0	0	14	108
Hourly Total	0	6	45	0	51	9	75	303	1	388	0	2	13	0	15	13	79	0	0	92	546
6:00 PM	0	0	9	0	9	1	41	58	0	100	1	0	6	0	7	3	11	0	0	14	130
6:15 PM	0	1	4	0	5	4	32	42	0	78	0	0	4	0	4	7	14	0	0	21	108
6:30 PM	0	1	5	0	6	3	12	52	0	67	0	1	4	0	5	3	21	0	0	24	102
6:45 PM	0	1	3	0	4	2	10	50	0	62	0	0	4	0	4	1	17	0	0	18	88
Hourly Total	0	3	21	0	24	10	95	202	0	307	1	1	18	0	20	14	63	0	0	77	428
7:00 PM	0	0	9	0	9	5	8	36	0	49	1	0	5	0	6	3	9	0	0	12	76
7:15 PM	0	1	5	0	6	3	8	39	1	51	0	0	3	0	3	2	3	0	0	5	65
7:30 PM	0	0	6	0	6	2	6	44	1	53	0	0	4	0	4	6	26	0	0	32	95
7:45 PM	0	1	4	0	5	0	5	42	2	49	0	0	0	0	0	6	20	0	0	26	80
Hourly Total	0	2	24	0	26	10	27	161	4	202	1	0	12	0	13	17	58	0	0	75	316
8:00 PM	0	0	1	0	1	2	0	37	0	39	0	1	2	0	3	2	10	0	0	12	55
8:15 PM	0	0	1	0	1	1	4	28	0	33	0	0	3	0	3	1	9	0	0	10	47
8:30 PM	0	0	0	0	0	2	4	25	0	31	0	0	2	0	2	0	4	0	0	4	37
8:45 PM	0	0	1	0	1	1	2	27	0	30	0	0	4	0	4	1	8	0	0	9	44
Hourly Total	0	0	3	0	3	6	10	117	0	133	0	1	11	0	12	4	31	0	0	35	183
9:00 PM	0	1	1	0	2	1	7	29	0	37	0	0	1	0	1	2	3	0	0	5	45
9:15 PM	0	0	1	0	1	1	1	36	0	38	0	0	1	0	1	3	3	0	0	6	46
9:30 PM	0	0	1	0	1	1	4	25	0	30	0	1	0	0	1	0	3	0	0	3	35
9:45 PM	0	0	2	0	2	2	1	16	0	19	1	0	0	0	1	1	4	0	0	5	27
Hourly Total	0	1	5	0	6	5	13	106	0	124	1	1	2	0	4	6	13	0	0	19	153
10:00 PM	0	1	6	0	7	0	5	8	0	13	0	0	2	0	2	0	4	0	0	4	26
10:15 PM	0	0	1	0	1	3	1	18	0	22	0	0	1	0	1	0	5	0	0	5	29
10:30 PM	0	0	1	0	1	1	4	7	0	12	1	0	0	0	1	0	1	0	0	1	15
10:45 PM	0	0	0	0	0	0	1	12	0	13	1	0	1	0	2	0	2	0	0	2	17
Hourly Total	0	1	8	0	9	4	11	45	0	60	2	0	4	0	6	0	12	0	0	12	87
11:00 PM	0	0	4	0	4	0	0	10	0	10	0	0	0	0	0	1	1	0	0	2	16
11:15 PM	0	0	0	0	0	1	3	12	0	16	0	1	0	0	1	1	0	0	0	1	18
11:30 PM	0	1	0	0	1	2	2	9	0	13	0	0	1	0	1	1	2	0	0	3	18
11:45 PM	0	0	2	0	2	2	0	9	0	11	0	0	0	0	0	1	0	0	0	1	14
Hourly Total	0	1	6	0	7	5	5	40	0	50	0	1	1	0	2	4	3	0	0	7	66
12:00 AM	0	0	4	0	4	2	1	7	0	10	0	0	0	0	0	0	1	0	0	1	15
12:15 AM	0	0	5	0	5	0	0	6	0	6	0	0	1	0	1	0	1	0	0	1	13
12:30 AM	0	0	2	0	2	0	1	5	0	6	0	0	0	0	0	0	0	0	0	0	8
12:45 AM	1	0	4	0	5	5	1	5	0	11	0	0	0	0	0	0	1	0	0	1	17
Hourly Total	1	0	15	0	16	7	3	23	0	33	0	0	1	0	1	0	3	0	0	3	53
1:00 AM	0	0	6	0	6	3	0	2	0	5	0	0	0	0	0	1	0	0	0	1	12
1:15 AM	0	0	5	0	5	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	7
1:30 AM	0	0	2	0	2	1	2	2	0	5	0	0	0	0	0	0	0	0	0	0	7
1:45 AM	0	0	1	0	1	2	0	2	0	4	0	0	0	0	0	0	1	0	0	1	6
Hourly Total	0	0	14	0	14	6	2	8	0	16	0	0	0	0	0	1	1	0	0	2	32
2:00 AM	1	0	3	0	4	2	0	1	0	3	0	0	0	0	0	0	1	0	0	1	8
2:15 AM	0	0	1	0	1	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	3
2:30 AM	0	0	1	0	1	3	0	3	0	6	0	0	0	0	0	0	0	0	0	0	7
2:45 AM	0	0	1	0	1	1	1	2	0	4	0	0	0	0	0	0	0	0	0	0	5
Hourly Total	1	0	6	0	7	6	1	8	0	15	0	0	0	0	0	0	1	0	0	1	23

3:00 AM	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	2
3:15 AM	0	0	0	0	0	0	0	4	0	4	0	0	1	0	1	0	1	0	0	1	6
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	1	1	0	2	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	5
Hourly Total	0	1	1	0	2	1	0	7	0	8	0	1	1	0	2	0	1	0	0	1	13
4:00 AM	0	0	0	0	0	1	0	1	0	2	0	1	0	0	1	0	1	0	0	1	4
4:15 AM	0	0	1	0	1	2	0	1	0	3	0	0	0	0	0	0	0	0	0	0	4
4:30 AM	0	0	1	0	1	6	1	1	0	8	0	2	0	0	2	0	1	0	0	1	12
4:45 AM	0	1	1	0	2	1	1	2	0	4	0	0	0	0	0	0	2	0	0	2	8
Hourly Total	0	1	3	0	4	10	2	5	0	17	0	3	0	0	3	0	4	0	0	4	28
5:00 AM	0	0	0	0	0	5	1	2	0	8	0	0	0	0	0	0	0	0	0	0	8
5:15 AM	0	0	3	0	3	8	0	3	0	11	0	2	0	0	2	1	0	0	0	1	17
5:30 AM	0	0	1	0	1	7	1	3	0	11	0	0	0	0	0	0	1	0	0	1	13
5:45 AM	0	0	2	0	2	5	2	12	0	19	0	1	0	0	1	0	2	0	0	2	24
Hourly Total	0	0	6	0	6	25	4	20	0	49	0	3	0	0	3	1	3	0	0	4	62
6:00 AM	0	0	2	0	2	2	0	5	0	7	0	1	1	0	2	0	1	0	0	1	12
6:15 AM	0	0	0	0	0	6	0	1	0	7	0	0	0	0	0	0	3	0	0	3	10
6:30 AM	0	0	1	0	1	9	5	9	0	23	0	1	1	0	2	0	1	0	0	1	27
6:45 AM	0	0	1	0	1	4	1	14	0	19	1	3	0	0	4	2	5	0	0	7	31
Hourly Total	0	0	4	0	4	21	6	29	0	56	1	5	2	0	8	2	10	0	0	12	80
7:00 AM	0	0	2	0	2	5	7	11	0	23	1	1	0	0	2	2	8	0	0	10	37
7:15 AM	0	0	3	0	3	3	3	9	0	15	1	3	2	0	6	1	8	0	0	9	33
7:30 AM	0	1	0	0	1	13	7	14	0	34	0	2	3	0	5	1	10	0	0	11	51
7:45 AM	0	1	7	0	8	13	4	14	1	32	0	0	0	0	0	3	7	0	0	10	50
Hourly Total	0	2	12	0	14	34	21	48	1	104	2	6	5	0	13	7	33	0	0	40	171
8:00 AM	0	1	2	0	3	12	4	12	0	28	0	2	1	0	3	1	7	0	0	8	42
8:15 AM	0	0	1	0	1	8	0	20	0	28	1	1	2	0	4	1	8	0	0	9	42
8:30 AM	0	1	2	0	3	8	6	26	1	41	2	3	1	0	6	1	9	0	0	10	60
8:45 AM	0	1	3	0	4	9	8	49	0	66	0	0	2	0	2	3	5	0	0	8	80
Hourly Total	0	3	8	0	11	37	18	107	1	163	3	6	6	0	15	6	29	0	0	35	224
9:00 AM	0	1	10	0	11	13	4	38	0	55	1	1	0	0	2	1	8	0	0	9	77
9:15 AM	0	2	13	0	15	7	7	28	1	43	1	2	1	0	4	3	8	0	0	11	73
9:30 AM	0	0	3	0	3	10	10	20	0	40	0	1	1	0	2	1	3	0	0	4	49
9:45 AM	0	2	8	0	10	9	9	20	0	38	0	2	2	0	4	2	4	0	0	6	58
Hourly Total	0	5	34	0	39	39	30	106	1	176	2	6	4	0	12	7	23	0	0	30	257
10:00 AM	1	2	11	0	14	6	5	24	0	35	0	1	4	0	5	1	6	0	0	7	61
10:15 AM	0	2	7	0	9	11	4	22	0	37	0	1	3	0	4	1	5	0	0	6	56
10:30 AM	0	1	9	0	10	8	11	20	0	39	0	2	5	0	7	5	8	0	0	13	69
10:45 AM	0	0	7	0	7	12	12	17	0	41	0	2	4	0	6	1	14	0	0	15	69
Hourly Total	1	5	34	0	40	37	32	83	0	152	0	6	16	0	22	8	33	0	0	41	255
11:00 AM	0	4	12	0	16	19	13	23	0	55	1	3	3	0	7	2	5	0	0	7	85
11:15 AM	1	0	11	0	12	11	5	28	1	45	1	0	0	0	1	3	9	1	0	13	71
11:30 AM	1	2	15	0	18	5	8	27	0	40	1	0	3	0	4	1	3	0	0	4	66
11:45 AM	0	0	14	0	14	15	6	29	1	51	0	2	1	0	3	0	12	0	0	12	80
Hourly Total	2	6	52	0	60	50	32	107	2	191	3	5	7	0	15	6	29	1	0	36	302
Grand Total	11	159	1101	2	1273	1052	1457	4723	30	7262	52	172	361	0	585	299	1500	6	0	1805	10925
Approach %	0.9	12.5	86.5	0.2	-	14.5	20.1	65.0	0.4	-	8.9	29.4	61.7	0.0	-	16.6	83.1	0.3	0.0	-	-
Total %	0.1	1.5	10.1	0.0	11.7	9.6	13.3	43.2	0.3	66.5	0.5	1.6	3.3	0.0	5.4	2.7	13.7	0.1	0.0	16.5	-
All Vehicles (no classification)	11	159	1101	2	1273	1052	1457	4723	30	7262	52	172	361	0	585	299	1500	6	0	1805	10925
% All Vehicles (no classification)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0

CRW Engineering Group LLC (Anchorage)
3940 Arctic Blvd, Ste. 300

Anchorage, Alaska, United States 99503
907-562-3252 medge@crweng.com

Count Name: South AirPark Development - Raspberry & Sandlake
Site Code:
Start Date: 02/23/2022
Page No: 6



Turning Movement Data Plot

CRW Engineering Group LLC (Anchorage)
3940 Arctic Blvd, Ste. 300

Anchorage, Alaska, United States 99503
907-562-3252 medge@crweng.com

Count Name: South AirPark Development - Raspberry & Sandlake
Site Code:
Start Date: 02/23/2022

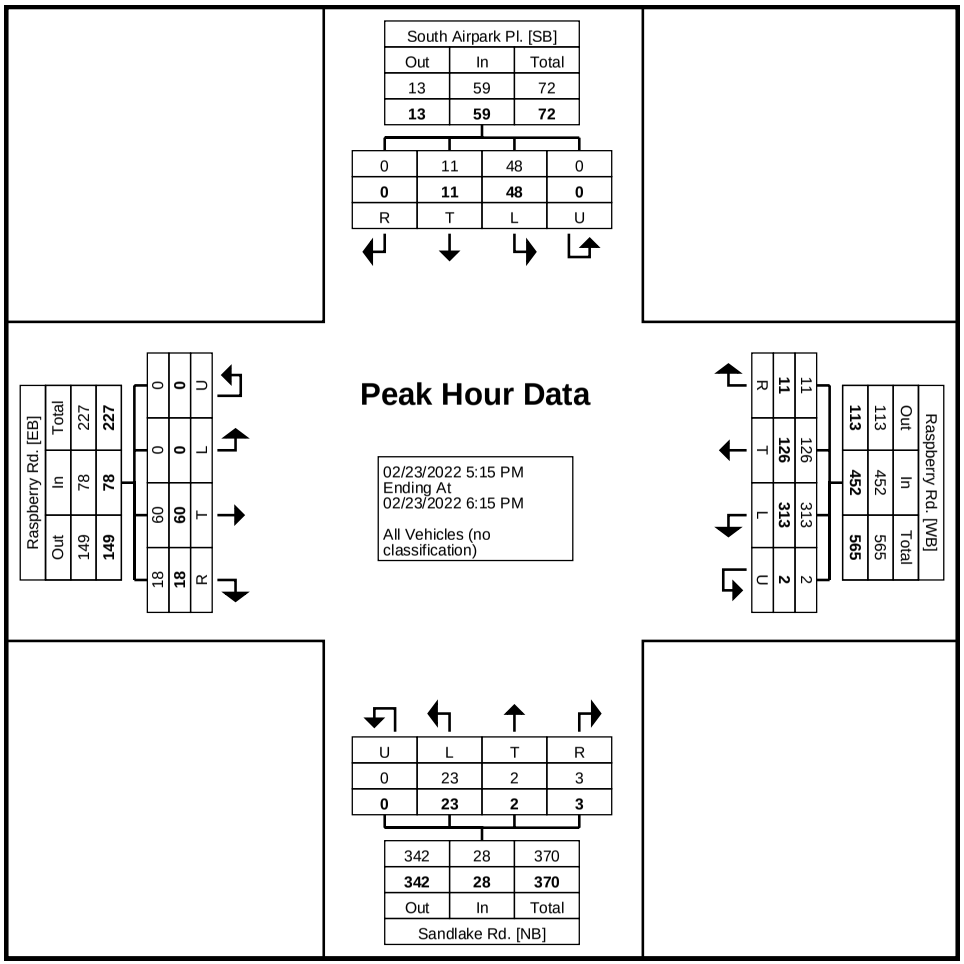
Turning Movement Peak Hour Data (5:15 PM)

Start Time	South Airpark Pl. Southbound					Raspberry Rd. Westbound					Sandlake Rd. Northbound					Raspberry Rd. Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
5:15 PM	0	5	15	0	20	3	19	104	1	127	0	2	3	0	5	0	18	0	0	18	170
5:30 PM	0	3	12	0	15	5	18	87	1	111	2	0	2	0	4	3	17	0	0	20	150
5:45 PM	0	2	4	0	6	1	26	63	0	90	1	0	7	0	8	9	15	0	0	24	128
6:00 PM	0	1	17	0	18	2	63	59	0	124	0	0	11	0	11	6	10	0	0	16	169
Total	0	11	48	0	59	11	126	313	2	452	3	2	23	0	28	18	60	0	0	78	617
Approach %	0.0	18.6	81.4	0.0	-	2.4	27.9	69.2	0.4	-	10.7	7.1	82.1	0.0	-	23.1	76.9	0.0	0.0	-	-
Total %	0.0	1.8	7.8	0.0	9.6	1.8	20.4	50.7	0.3	73.3	0.5	0.3	3.7	0.0	4.5	2.9	9.7	0.0	0.0	12.6	-
PHF	0.000	0.550	0.706	0.000	0.738	0.550	0.500	0.752	0.500	0.890	0.375	0.250	0.523	0.000	0.636	0.500	0.833	0.000	0.000	0.813	0.907
All Vehicles (no classification)	0	11	48	0	59	11	126	313	2	452	3	2	23	0	28	18	60	0	0	78	617
% All Vehicles (no classification)	-	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	-	-	100.0	100.0

CRW Engineering Group LLC (Anchorage)
3940 Arctic Blvd, Ste. 300

Anchorage, Alaska, United States 99503
907-562-3252 medge@crweng.com

Count Name: South AirPark Development - Raspberry & Sandlake
Site Code:
Start Date: 02/23/2022



Turning Movement Peak Hour Data Plot (5:15 PM)

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Anchorage, Alaska, United States 99503
907-562-3252 medge@crweng.com

Count Name: South AirPark Development - Raspberry & Sandlake
Site Code:
Start Date: 02/23/2022

Turning Movement Peak Hour Data (11:00 AM)

Start Time	South Airpark Pl. Southbound					Raspberry Rd. Westbound					Sandlake Rd. Northbound					Raspberry Rd. Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
11:00 AM	0	3	11	0	14	11	13	28	1	53	0	2	0	0	2	0	11	0	0	11	80
11:15 AM	1	1	10	0	12	9	12	23	0	44	0	0	1	0	1	3	13	0	0	16	73
11:30 AM	0	3	12	0	15	8	7	25	1	41	0	3	2	0	5	3	12	0	0	15	76
11:45 AM	0	4	8	0	12	14	11	25	0	50	1	0	6	0	7	3	14	0	0	17	86
Total	1	11	41	0	53	42	43	101	2	188	1	5	9	0	15	9	50	0	0	59	315
Approach %	1.9	20.8	77.4	0.0	-	22.3	22.9	53.7	1.1	-	6.7	33.3	60.0	0.0	-	15.3	84.7	0.0	0.0	-	-
Total %	0.3	3.5	13.0	0.0	16.8	13.3	13.7	32.1	0.6	59.7	0.3	1.6	2.9	0.0	4.8	2.9	15.9	0.0	0.0	18.7	-
PHF	0.250	0.688	0.854	0.000	0.883	0.750	0.827	0.902	0.500	0.887	0.250	0.417	0.375	0.000	0.536	0.750	0.893	0.000	0.000	0.868	0.916
All Vehicles (no classification)	1	11	41	0	53	42	43	101	2	188	1	5	9	0	15	9	50	0	0	59	315
% All Vehicles (no classification)	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	-	-	100.0	100.0

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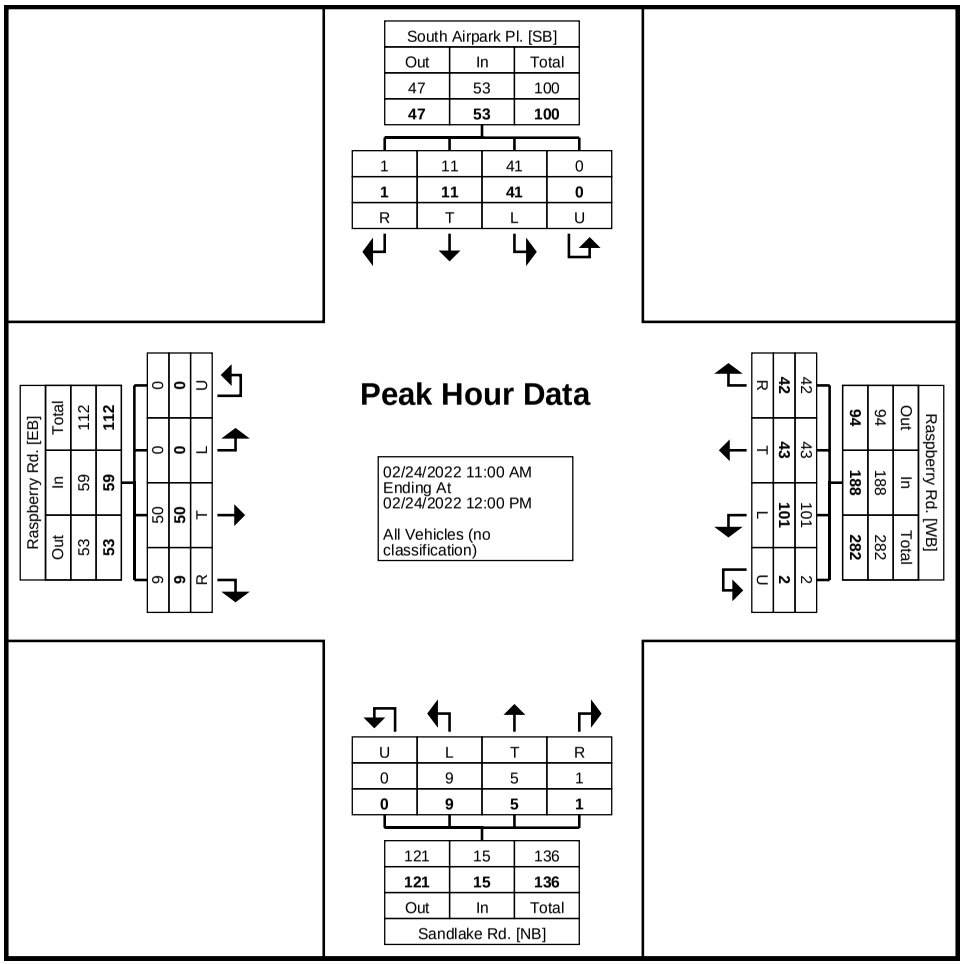

Turning Movement Peak Hour Data Plot (11:00 AM)

CRW Engineering Group LLC (Anchorage)
3940 Arctic Blvd, Ste. 300

Anchorage, Alaska, United States 99503
907-562-3252 medge@crweng.com

Count Name: South AirPark Development - Raspberry & Sandlake
Site Code:
Start Date: 02/23/2022

Turning Movement Peak Hour Data (4:45 PM)

Start Time	South Airpark Pl. Southbound					Raspberry Rd. Westbound					Sandlake Rd. Northbound					Raspberry Rd. Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
4:45 PM	0	4	13	0	17	9	21	58	0	88	0	0	7	0	7	4	10	0	0	14	126
5:00 PM	0	1	12	0	13	3	19	96	0	118	0	0	1	0	1	1	23	0	0	24	156
5:15 PM	0	3	15	0	18	2	22	72	0	96	0	1	2	0	3	2	22	0	0	24	141
5:30 PM	0	1	9	0	10	3	14	79	1	97	0	0	4	0	4	9	21	0	0	30	141
Total	0	9	49	0	58	17	76	305	1	399	0	1	14	0	15	16	76	0	0	92	564
Approach %	0.0	15.5	84.5	0.0	-	4.3	19.0	76.4	0.3	-	0.0	6.7	93.3	0.0	-	17.4	82.6	0.0	0.0	-	-
Total %	0.0	1.6	8.7	0.0	10.3	3.0	13.5	54.1	0.2	70.7	0.0	0.2	2.5	0.0	2.7	2.8	13.5	0.0	0.0	16.3	-
PHF	0.000	0.563	0.817	0.000	0.806	0.472	0.864	0.794	0.250	0.845	0.000	0.250	0.500	0.000	0.536	0.444	0.826	0.000	0.000	0.767	0.904
All Vehicles (no classification)	0	9	49	0	58	17	76	305	1	399	0	1	14	0	15	16	76	0	0	92	564
% All Vehicles (no classification)	-	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0	-	100.0	100.0	100.0	-	-	100.0	100.0

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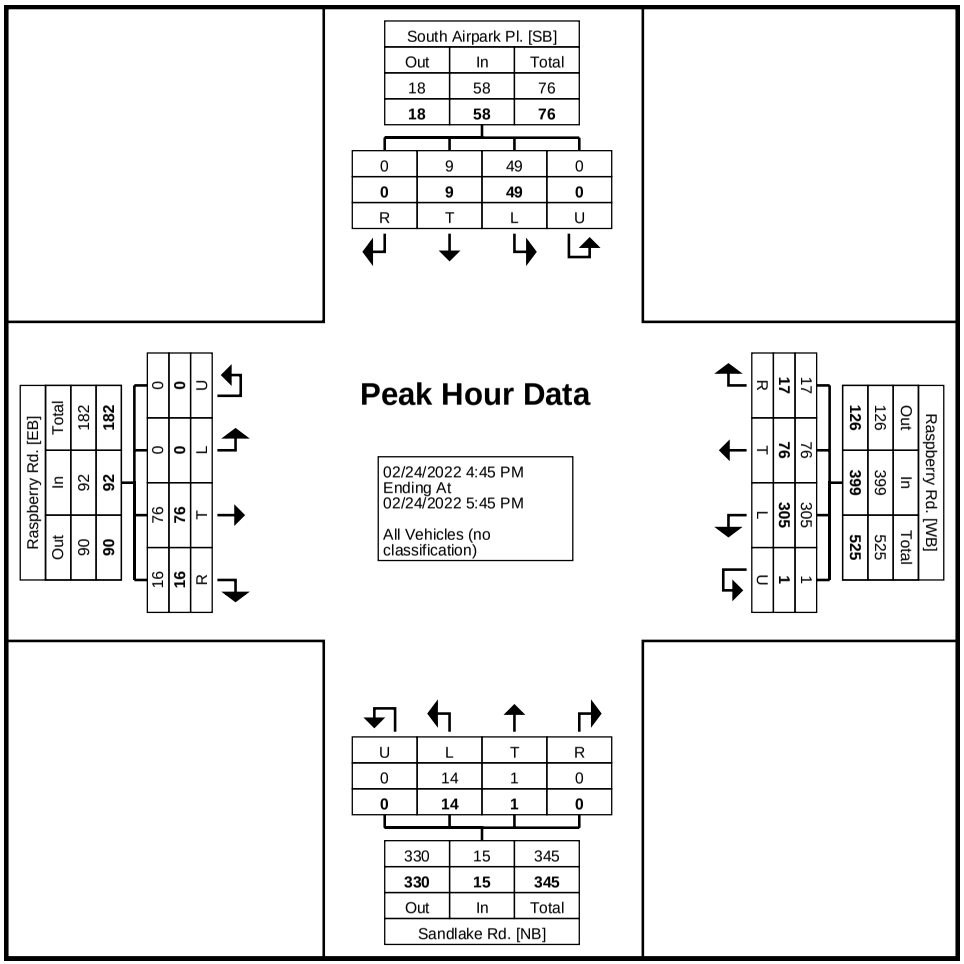
Site Code:
Start Date: 02/23/2022



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Count Name: South AirPark Development - Raspberry & Sandlake
Site Code:
Start Date: 02/23/2022

Turning Movement Peak Hour Data (11:00 AM)

Start Time	South Airpark Pl. Southbound					Raspberry Rd. Westbound					Sandlake Rd. Northbound					Raspberry Rd. Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
11:00 AM	0	4	12	0	16	19	13	23	0	55	1	3	3	0	7	2	5	0	0	7	85
11:15 AM	1	0	11	0	12	11	5	28	1	45	1	0	0	0	1	3	9	1	0	13	71
11:30 AM	1	2	15	0	18	5	8	27	0	40	1	0	3	0	4	1	3	0	0	4	66
11:45 AM	0	0	14	0	14	15	6	29	1	51	0	2	1	0	3	0	12	0	0	12	80
Total	2	6	52	0	60	50	32	107	2	191	3	5	7	0	15	6	29	1	0	36	302
Approach %	3.3	10.0	86.7	0.0	-	26.2	16.8	56.0	1.0	-	20.0	33.3	46.7	0.0	-	16.7	80.6	2.8	0.0	-	-
Total %	0.7	2.0	17.2	0.0	19.9	16.6	10.6	35.4	0.7	63.2	1.0	1.7	2.3	0.0	5.0	2.0	9.6	0.3	0.0	11.9	-
PHF	0.500	0.375	0.867	0.000	0.833	0.658	0.615	0.922	0.500	0.868	0.750	0.417	0.583	0.000	0.536	0.500	0.604	0.250	0.000	0.692	0.888
All Vehicles (no classification)	2	6	52	0	60	50	32	107	2	191	3	5	7	0	15	6	29	1	0	36	302
% All Vehicles (no classification)	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0

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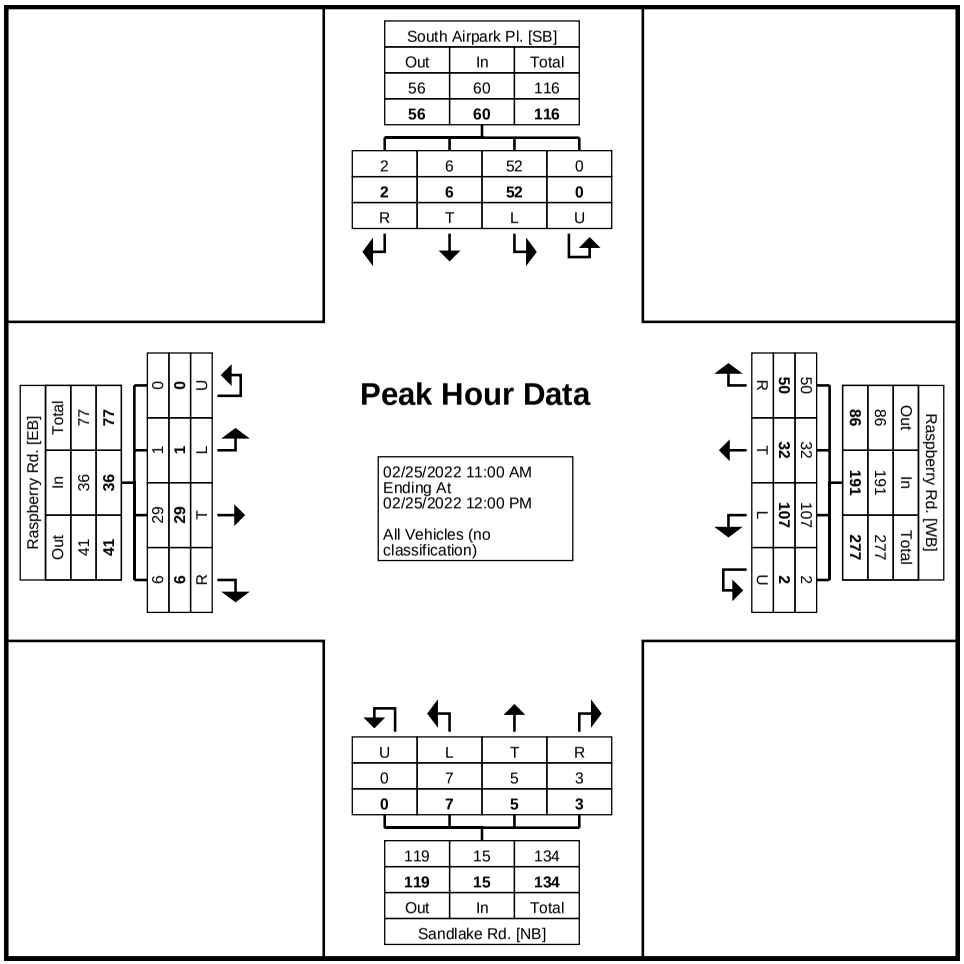
Site Code:
Start Date: 02/23/2022



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

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Please continue study with no signalization. There is a stop sign at S. Airpark Pl. and a stop sign at Sandlake.

Municipality of Anchorage

Data Source: MOA Data

Device Type: Camera / Video

Location: JEWEL LAKE ROAD, ANCHORAGE and RASPBERRY ROAD, ANCHORAGE At: Intersection

Type: Bicycle Intersection Volume

Report Date: 08/14/2018

Time Span: 15 Min

Combined

START_TIME	8/14/2018 Tuesday NBL	8/14/2018 Tuesday NBT	8/14/2018 Tuesday NBR	8/14/2018 Tuesday SBL	8/14/2018 Tuesday SBT	8/14/2018 Tuesday SBR	8/14/2018 Tuesday EBL	8/14/2018 Tuesday EBT	8/14/2018 Tuesday EBR	8/14/2018 Tuesday WBL	8/14/2018 Tuesday WBT	8/14/2018 Tuesday WBR	NB	SB	EB	WB	ALL
12:00 AM	1	7	6	4	17	5	5	8	2	11	8	5	14	26	15	24	79
12:15 AM	1	6	5	2	14	5	5	6	2	8	9	2	12	21	13	19	65
12:30 AM	2	8	7	4	6	3	4	5	0	6	12	3	17	13	9	21	60
12:45 AM	1	5	4	3	8	4	2	6	1	5	8	2	10	15	9	15	49
01:00 AM	0	3	5	2	7	2	3	4	1	9	5	1	8	11	8	15	42
01:15 AM	0	1	3	3	9	1	2	5	0	4	4	0	4	13	7	8	32
01:30 AM	2	3	4	2	8	0	2	7	0	3	1	1	9	10	9	5	33
01:45 AM	1	2	3	0	9	1	3	3	1	1	5	1	6	10	7	7	30
02:00 AM	2	1	1	1	5	0	2	3	0	2	6	0	4	6	5	8	23
02:15 AM	0	3	2	0	6	2	3	2	1	1	1	0	5	8	6	2	21
02:30 AM	0	4	4	0	4	4	1	1	0	0	5	2	8	8	2	7	25
02:45 AM	0	2	3	0	3	2	2	3	0	3	2	1	5	5	5	6	21
03:00 AM	0	3	4	2	4	1	0	2	1	2	3	0	7	7	3	5	22
03:15 AM	1	4	2	3	2	2	2	3	2	1	4	0	7	7	7	5	26
03:30 AM	0	6	3	3	1	1	4	4	0	2	3	1	9	5	8	6	28
03:45 AM	0	5	1	0	2	3	3	3	1	2	0	1	6	5	7	3	21
04:00 AM	0	7	0	0	6	1	1	2	0	1	4	2	7	7	3	7	24
04:15 AM	0	13	4	1	5	1	2	2	0	2	3	1	17	7	4	6	34
04:30 AM	1	12	5	2	11	4	12	6	0	3	8	3	18	17	18	14	67
04:45 AM	0	18	2	1	8	10	9	6	1	0	4	2	20	19	16	6	61
05:00 AM	0	7	6	1	6	3	8	6	0	3	10	3	13	10	14	16	53
05:15 AM	0	9	10	0	3	6	3	11	1	2	10	0	19	9	15	12	55
05:30 AM	0	23	10	1	8	2	8	19	2	1	20	5	33	11	29	26	99
05:45 AM	1	33	15	6	8	5	16	27	0	7	14	6	49	19	43	27	138
06:00 AM	2	18	21	0	11	7	13	25	1	9	10	9	41	18	39	28	126
06:15 AM	1	22	30	2	14	7	11	35	1	12	21	3	53	23	47	36	159
06:30 AM	2	51	37	4	12	9	25	55	4	7	25	6	90	25	84	38	237
06:45 AM	7	51	41	4	14	18	12	73	2	9	42	7	99	36	87	58	280
07:00 AM	4	43	47	3	19	19	24	77	6	26	34	6	94	41	107	66	308
07:15 AM	7	45	55	7	9	20	36	103	5	26	40	11	107	36	144	77	364
07:30 AM	5	61	87	12	22	18	62	105	6	40	41	16	153	52	173	97	475
07:45 AM	11	72	80	4	30	23	54	135	12	37	52	14	163	57	201	103	524
08:00 AM	1	43	56	6	20	15	29	84	9	40	46	7	100	41	122	93	356
08:15 AM	6	41	72	4	28	16	25	74	12	38	41	12	119	48	111	91	369
08:30 AM	9	67	63	5	19	12	39	85	16	27	31	8	139	36	140	66	381
08:45 AM	5	37	58	10	35	16	34	80	8	35	58	8	100	61	122	101	384
09:00 AM	23	51	57	5	31	19	32	70	6	41	44	5	131	55	108	90	384
09:15 AM	11	40	52	6	17	22	22	81	4	34	43	10	103	45	107	87	342
09:30 AM	14	44	41	5	18	15	27	61	5	25	38	7	99	38	93	70	300
09:45 AM	7	45	34	8	32	23	18	68	11	32	45	6	86	63	97	83	329
10:00 AM	6	37	36	8	21	17	21	61	11	20	47	9	79	46	93	76	294
10:15 AM	7	36	24	6	44	26	12	64	13	34	41	15	67	76	89	90	322
10:30 AM	11	41	46	6	33	25	34	85	6	41	37	9	98	64	125	87	374
10:45 AM	7	46	42	7	39	15	26	49	13	36	43	4	95	61	88	83	327
11:00 AM	8	47	31	3	33	17	27	48	14	38	35	9	86	53	89	82	310
11:15 AM	11	32	35	6	42	22	21	63	12	23	54	5	78	70	96	82	326
11:30 AM	9	48	30	10	45	30	21	60	7	36	55	7	87	85	88	98	358
11:45 AM	12	49	43	2	51	19	26	76	16	43	67	9	104	72	118	119	413
12:00 PM	9	52	39	14	61	24	21	51	13	36	56	9	100	99	85	101	385
12:15 PM	20	60	44	7	61	26	20	64	13	37	73	16	124	94	97	126	441
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12:45 PM	17	62	52	19	50	29	32	51	10	37	62	14	131	98	93	113	435
01:00 PM	16	68	48	12	42	38	32	58	16	54	57	8	132	92	106	119	449
01:15 PM	12	54	39	9	51	32	33	52	9	49	50	12	105	92	94	111	402
01:30 PM	15	53	30	13	41	21	22	63	9	36	61	9	98	75	94	106	373
01:45 PM	7	49	41	4	41	37	33	62	12	32	72	7	97	82	107	111	397
02:00 PM	14	49	34	14	54	39	32	60	11	35	55	13	97	107	103	103	410
02:15 PM	21	41	37	14	53	34	20	62	10	40	47	9	99	101	92	96	388
02:30 PM	15	53	50	9	55	17	26	50	13	36	64	11	118	81	89	111	399
02:45 PM	12	46	33	6	49	35	36	54	9	39	62	8	91	90	99	109	389
03:00 PM	12	50	41	13	61	34	29	68	11	52	66	13	103	108	108	131	450
03:15 PM	18	47	39	12	59	37	23	60	11	41	54	6	104	108	94	101	407
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04:30 PM	14	36	69	23	90	52	18	77	7	52	92	12	119	165	102	156	542

04:45 PM	18	51	55	11	68	54	27	84	13	90	95	14	124	133	124	199	580
05:00 PM	22	57	63	15	107	55	29	83	20	71	100	15	142	177	132	186	637
05:15 PM	20	65	60	18	100	71	29	66	11	72	95	13	145	189	106	180	620
05:30 PM	25	54	54	15	75	52	25	71	16	81	115	5	133	142	112	201	588
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06:00 PM	26	51	58	13	53	43	36	70	20	72	112	9	135	109	126	193	563
06:15 PM	15	44	44	12	59	47	27	64	13	59	101	14	103	118	104	174	499
06:30 PM	16	52	35	10	39	32	26	65	23	57	60	17	103	81	114	134	432
06:45 PM	17	51	36	8	49	42	14	52	14	40	74	14	104	99	80	128	411
07:00 PM	20	42	31	11	57	25	25	42	15	56	63	8	93	93	82	127	395
07:15 PM	24	50	33	9	55	28	23	62	14	50	47	7	107	92	99	104	402
07:30 PM	26	38	37	6	57	23	21	55	13	42	54	16	101	86	89	112	388
07:45 PM	11	31	39	14	38	26	22	52	19	51	65	6	81	78	93	122	374
08:00 PM	13	42	37	6	42	23	18	39	15	28	58	4	92	71	72	90	325
08:15 PM	12	26	24	7	27	24	16	48	24	39	32	4	62	58	88	75	283
08:30 PM	23	44	14	12	38	26	12	49	16	24	45	8	81	76	77	77	311
08:45 PM	8	41	27	6	52	24	21	35	10	36	40	1	76	82	66	77	301
09:00 PM	9	36	26	5	43	19	13	34	5	23	35	8	71	67	52	66	256
09:15 PM	8	30	25	10	34	28	15	34	10	35	52	9	63	72	59	96	290
09:30 PM	8	37	29	8	48	15	11	35	8	13	43	5	74	71	54	61	260
09:45 PM	7	23	21	5	32	11	16	20	7	25	28	7	51	48	43	60	202
10:00 PM	6	33	17	8	26	20	10	30	5	16	25	8	56	54	45	49	204
10:15 PM	5	30	15	2	30	14	9	15	5	26	35	5	50	46	29	66	191
10:30 PM	5	21	15	5	26	12	12	15	4	10	23	3	41	43	31	36	151
10:45 PM	4	27	12	4	36	16	8	27	2	12	16	3	43	56	37	31	167
11:00 PM	4	23	14	6	31	14	9	18	3	14	14	4	41	51	30	32	154
11:15 PM	3	18	13	5	24	12	7	16	3	12	12	2	34	41	26	26	127
11:30 PM	3	20	14	3	19	13	8	12	2	10	13	3	37	35	22	26	120
11:45 PM	2	17	12	4	12	11	6	10	2	8	12	4	31	27	18	24	100

Peak Hour Volumes

AM Peak	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NB**	**SB**	**EB**	**WB**	**ALL**
07:30 AM - 08:30 AM	23	217	295	26	100	72	170	398	39	155	180	49	535	198	607	384	1724
Approach %	*4.30%*	*40.56%*	*55.14%*	*13.13%*	*50.51%*	*36.36%*	*28.01%*	*65.57%*	*6.43%*	*40.36%*	*46.88%*	*12.76%*	*31.03%*	*11.48%*	*35.21%*	*22.27%*	
Midday Peak	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NB**	**SB**	**EB**	**WB**	**ALL**
12:15 PM - 01:15 PM	63	237	192	52	188	117	120	245	63	171	257	55	492	357	428	483	1760
Approach %	*12.80%*	*48.17%*	*39.02%*	*14.57%*	*52.66%*	*32.77%*	*28.04%*	*57.24%*	*14.72%*	*35.40%*	*53.21%*	*11.39%*	*27.95%*	*20.28%*	*24.32%*	*27.44%*	
PM Peak	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NB**	**SB**	**EB**	**WB**	**ALL**
05:00 PM - 06:00 PM	93	238	206	66	366	220	124	309	67	306	423	39	537	652	500	768	2457
Approach %	*17.32%*	*44.32%*	*38.36%*	*10.12%*	*56.13%*	*33.74%*	*24.80%*	*61.80%*	*13.40%*	*39.84%*	*55.08%*	*5.08%*	*21.86%*	*26.54%*	*20.35%*	*31.26%*	
Off Peak	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NB**	**SB**	**EB**	**WB**	**ALL**
07:00 PM - 08:00 PM	81	161	140	40	207	102	91	211	61	199	229	37	382	349	363	465	1559
Approach %	*21.20%*	*42.15%*	*36.65%*	*11.46%*	*59.31%*	*29.23%*	*25.07%*	*58.13%*	*16.80%*	*42.80%*	*49.25%*	*7.96%*	*24.50%*	*22.39%*	*23.28%*	*29.83%*	

Daily Total

TIME SPAN	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NB**	**SB**	**EB**	**WB**	**ALL**
24 Hour	856	3330	2939	666	3213	1970	1826	4337	782	2785	3950	669	7120	5846	6938	7402	27323
Approach %	*0.01%*	*0.06%*	*0.00%*	*0.02%*	*0.02%*	*0.02%*	*0.01%*	*0.09%*	*0.00%*	*0.01%*	*0.01%*	*0.00%*	*26.07%*	*21.41%*	*25.41%*	*27.11%*	

Municipality of Anchorage

Data Source: MOA Data
Device Type: Pneumatic
Type: Intersection Volume
Report Date: 08/07/2019

Location: SAND LAKE ROAD, ANCHORAGE and RASPBERRY ROAD, ANCHORAGE (NORTH SIDE) **At:** Intersection

Time Span: 15 Min

Vehicles

START_TIME	8/7/2019 Wednesday NBLTR	8/7/2019 Wednesday SBLTR	8/7/2019 Wednesday EBLTR	8/7/2019 Wednesday WBLTR	NB	SB	EB	WB	ALL
12:00 AM	23	2	0	21	23	2	0	21	46
12:15 AM	32	7	3	8	32	7	3	8	50
12:30 AM	33	1	0	7	33	1	0	7	41
12:45 AM	21	6	0	14	21	6	0	14	41
01:00 AM	23	4	0	5	23	4	0	5	32
01:15 AM	20	1	3	7	20	1	3	7	31
01:30 AM	27	0	2	7	27	0	2	7	36
01:45 AM	27	0	0	3	27	0	0	3	30
02:00 AM	25	1	0	3	25	1	0	3	29
02:15 AM	20	0	2	5	20	0	2	5	27
02:30 AM	18	0	0	3	18	0	0	3	21
02:45 AM	10	1	0	5	10	1	0	5	16
03:00 AM	9	2	0	3	9	2	0	3	14
03:15 AM	15	2	1	5	15	2	1	5	23
03:30 AM	13	2	0	2	13	2	0	2	17
03:45 AM	13	1	1	8	13	1	1	8	23
04:00 AM	10	3	0	2	10	3	0	2	15
04:15 AM	5	1	2	10	5	1	2	10	18
04:30 AM	9	2	1	8	9	2	1	8	20
04:45 AM	4	0	0	14	4	0	0	14	18
05:00 AM	2	2	1	11	2	2	1	11	16
05:15 AM	6	2	4	14	6	2	4	14	26
05:30 AM	9	3	1	30	9	3	1	30	43
05:45 AM	5	5	2	15	5	5	2	15	27
06:00 AM	4	5	2	20	4	5	2	20	31
06:15 AM	8	4	6	20	8	4	6	20	38
06:30 AM	7	5	5	32	7	5	5	32	49
06:45 AM	5	2	12	39	5	2	12	39	58
07:00 AM	11	4	13	30	11	4	13	30	58
07:15 AM	8	7	18	43	8	7	18	43	76
07:30 AM	8	6	18	52	8	6	18	52	84
07:45 AM	7	7	6	68	7	7	6	68	88
08:00 AM	7	6	15	58	7	6	15	58	86
08:15 AM	10	11	14	64	10	11	14	64	99
08:30 AM	18	21	10	46	18	21	10	46	95
08:45 AM	18	6	18	54	18	6	18	54	96
09:00 AM	14	12	12	55	14	12	12	55	93
09:15 AM	28	9	14	66	28	9	14	66	117
09:30 AM	38	10	9	65	38	10	9	65	122
09:45 AM	26	12	24	67	26	12	24	67	129
10:00 AM	32	12	16	54	32	12	16	54	114
10:15 AM	51	6	22	54	51	6	22	54	133
10:30 AM	72	16	27	76	72	16	27	76	191
10:45 AM	70	17	18	75	70	17	18	75	180
11:00 AM	80	18	22	78	80	18	22	78	198
11:15 AM	93	34	28	70	93	34	28	70	225
11:30 AM	115	14	15	82	115	14	15	82	226
11:45 AM	110	34	20	86	110	34	20	86	250
12:00 PM	76	14	25	80	76	14	25	80	195
12:15 PM	64	10	18	80	64	10	18	80	172
12:30 PM	82	16	22	80	82	16	22	80	200
12:45 PM	68	12	18	84	68	12	18	84	182
01:00 PM	54	12	23	76	54	12	23	76	165
01:15 PM	65	13	22	85	65	13	22	85	185
01:30 PM	64	12	34	104	64	12	34	104	214
01:45 PM	47	42	31	82	47	42	31	82	202
02:00 PM	62	12	24	78	62	12	24	78	176
02:15 PM	61	26	28	94	61	26	28	94	209
02:30 PM	50	14	26	104	50	14	26	104	194
02:45 PM	58	26	31	81	58	26	31	81	196
03:00 PM	62	22	17	89	62	22	17	89	190
03:15 PM	62	31	34	103	62	31	34	103	230
03:30 PM	52	24	31	107	52	24	31	107	214
03:45 PM	62	35	29	106	62	35	29	106	232
04:00 PM	50	20	27	99	50	20	27	99	196
04:15 PM	75	15	32	117	75	15	32	117	239
04:30 PM	73	15	21	126	73	15	21	126	235

04:45 PM	62	32	47	140	62	32	47	140	281
05:00 PM	68	25	46	199	68	25	46	199	338
05:15 PM	69	17	44	179	69	17	44	179	309
05:30 PM	50	14	36	148	50	14	36	148	248
05:45 PM	48	12	45	146	48	12	45	146	251
06:00 PM	52	6	35	144	52	6	35	144	237
06:15 PM	52	6	55	122	52	6	55	122	235
06:30 PM	52	8	47	107	52	8	47	107	214
06:45 PM	44	8	46	87	44	8	46	87	185
07:00 PM	56	11	53	86	56	11	53	86	206
07:15 PM	62	8	48	96	62	8	48	96	214
07:30 PM	63	12	80	86	63	12	80	86	241
07:45 PM	58	14	59	76	58	14	59	76	207
08:00 PM	46	3	68	74	46	3	68	74	191
08:15 PM	44	4	72	56	44	4	72	56	176
08:30 PM	50	5	40	57	50	5	40	57	152
08:45 PM	44	1	33	62	44	1	33	62	140
09:00 PM	51	3	44	60	51	3	44	60	158
09:15 PM	51	4	38	49	51	4	38	49	142
09:30 PM	51	4	60	48	51	4	60	48	163
09:45 PM	44	3	21	34	44	3	21	34	102
10:00 PM	54	4	17	38	54	4	17	38	113
10:15 PM	49	6	10	34	49	6	10	34	99
10:30 PM	41	7	9	21	41	7	9	21	78
10:45 PM	37	8	1	16	37	8	1	16	62
11:00 PM	40	1	8	12	40	1	8	12	61
11:15 PM	37	0	1	18	37	0	1	18	56
11:30 PM	33	3	2	15	33	3	2	15	53
11:45 PM	39	2	4	17	39	2	4	17	62

Peak Hour Volumes

AM Peak	**NBLTR**	**SBLTR**	**EBLTR**	**WBLTR**	**NB**	**SB**	**EB**	**WB**	**ALL**
09:00 AM - 10:00 AM	106	43	59	253	106	43	59	253	461
Approach %	*100.00%*	*100.00%*	*100.00%*	*100.00%*	*22.99%*	*9.33%*	*12.80%*	*54.88%*	
Midday Peak	**NBLTR**	**SBLTR**	**EBLTR**	**WBLTR**	**NB**	**SB**	**EB**	**WB**	**ALL**
11:00 AM - 12:00 PM	398	100	85	316	398	100	85	316	899
Approach %	*100.00%*	*100.00%*	*100.00%*	*100.00%*	*44.27%*	*11.12%*	*9.45%*	*35.15%*	
PM Peak	**NBLTR**	**SBLTR**	**EBLTR**	**WBLTR**	**NB**	**SB**	**EB**	**WB**	**ALL**
04:45 PM - 05:45 PM	249	88	173	666	249	88	173	666	1176
Approach %	*100.00%*	*100.00%*	*100.00%*	*100.00%*	*21.17%*	*7.48%*	*14.71%*	*56.63%*	
Off Peak	**NBLTR**	**SBLTR**	**EBLTR**	**WBLTR**	**NB**	**SB**	**EB**	**WB**	**ALL**
07:00 PM - 08:00 PM	239	45	240	344	239	45	240	344	868
Approach %	*100.00%*	*100.00%*	*100.00%*	*100.00%*	*27.53%*	*5.18%*	*27.65%*	*39.63%*	

Daily Total

TIME SPAN	**NBLTR**	**SBLTR**	**EBLTR**	**WBLTR**	**NB**	**SB**	**EB**	**WB**	**ALL**
24 Hour	3853	928	1949	5566	3853	928	1949	5566	12296
Approach %	*100.00%*	*100.00%*	*100.00%*	*100.00%*	*31.34%*	*7.55%*	*15.85%*	*45.27%*	

Traffic Calculations

Appendix B

1.0 Traffic Forecast Max Growth (Base Volume)

AADT				
	Baseline Traffic			
Street	2020	2024	2034	
Raspberry Road west of Sand Lake Road	2940	3059	3379	
Raspberry Road east of Sand Lake Road	5720	5952	6575	
South Airpark Place	650 (2022)	663	732	
Sand Lake Road	4950	5151	5468	

Does not include ramp volume

PM Peak Hour Traffic				
	Baseline Traffic			
Street	2020	2024	2034	
Raspberry Road west of Sand Lake Road	294	306	338	
Raspberry Road east of Sand Lake Road	572	595	657	
South Airpark Place	65	66	73	
Sand Lake Road	495	515	547	

From DOT Historic Traffic Counts

Population Growth Rate	1.00%

*	PM Peak Hour =	10.00%
*	AM Peak Hour =	6.30%

From DOT Count Information

AM Peak Hour Traffic				
	Baseline Traffic			
Street	2020	2024	2034	
Raspberry Road west of Sand Lake Road	185	193	213	
Raspberry Road east of Sand Lake Road	360	375	414	
South Airpark Place	41	42	46	
Sand Lake Road	312	325	344	

Directional Distribution						
	Baseline Traffic					
Raspberry Road west of Sand Lake Road	2020 Eastbound	2020 Westbound	2024 Eastbound	2024 Westbound	2034 Eastbound	2034 Westbound
AM Peak Hour	111	74	116	77	128	85
PM Peak Hour	88	206	92	214	101	237

Directional Distribution						
	Baseline Traffic					
Raspberry Road east of Sand Lake Road	2020 Eastbound	2020 Westbound	2024 Eastbound	2024 Westbound	2034 Eastbound	2034 Westbound
AM Peak Hour	216	144	225	150	249	166
PM Peak Hour	172	400	179	417	197	460

	Baseline Traffic					
South Airpark Place	2022 Northbound	2022 Southbound	2024 Northbound	2024 Southbound	2034 Northbound	2034 Southbound
AM Peak Hour	25	16	25	17	28	18
PM Peak Hour	16	49	17	50	18	55

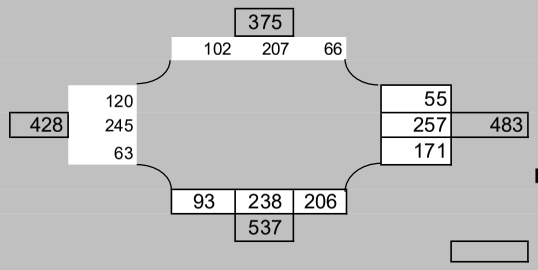
	Baseline Traffic					
Sand Lake Road	2020 Northbound	2020 Southbound	2024 Northbound	2024 Southbound	2034 North bound	2034 Southbound
AM Peak Hour	31	281	32	292	34	310
PM Peak Hour	50	446	52	464	55	492

Directional Distribution	NB/EB	SB/WB
Raspberry		
AM	0.60	0.40
PM	0.30	0.70
South Airpark		
AM	0.60	0.40
PM	0.25	0.75
Sand Lake Road		
AM	0.10	0.90
PM	0.10	0.90

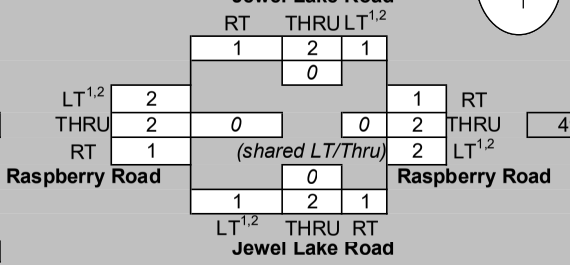
E/W Street	**Raspberry Road**		D.O.T. HC #
N/S Street	**Jewel Lake Road**	State of Alaska DOT/PF	set
		Preliminary Design & Environmental Section	DATE 04/22/22
Option	**2024 With Development**	Turning Movement Summary and Planning Anal ysis LOS	Design Year 2024
			Count Date Aug-18

2018 PM Peak Hour
Total Entering Volume: 1823

Traffic Volumes



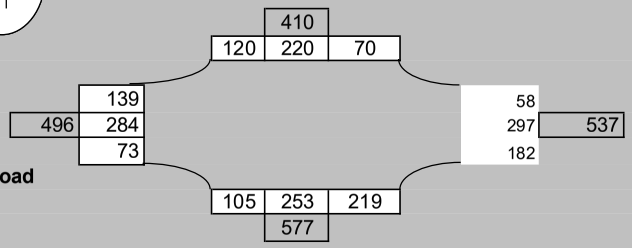
Lane Configuration



NORTH

2024 PM PEAK HOUR
Total Entering Volume:

Traffic Volumes



References:

1 TRB Highway Capacity Manual, Chapter 9, 1985
Lane Distribution Worksheet is used for approaches with left turning traffic, opposing traffic, and more than 1 approach lane with no left turn lane.

2 TRB Highway Capacity Manual, Chapter 9, 1985
Conflicting left turns adjusted for a single shared-lane approach

3 NCHRP 187 Quick-Response Urban Travel Estimation Techniques and Transferable Parameters, 1978 (pp. 143-144)

4 Three critical ("Yes") lane directions indicates shared/dual left turns requiring split phasing.

PLANNING ANALYSIS Level of Service (LOS)[3]

LANE USE FACTOR (LUF)

No. of Lanes	Lane Use Factor
1 =	1.00
2 =	0.55
3 =	0.40
4 =	0.30

SERVICE CRITICAL LANE V/C

LOS	VOLUME TOTAL	V/C RANGE	HCM Tbl. 9-14 v/c	CAPACITY
A	900 OR LESS	<0.60		
B	901 TO 1050	0.61 TO 0.70	<.85	UNDER
C	1051 TO 1200	0.71 TO 0.80		
D	1201 TO 1350	0.81 TO 0.90	.85-.95	NEAR
E	1351 TO 1500	0.91 TO 1.00	.95-1.0	AT
F	GREATER THAN 1500	> THAN 1.00	>1.0	OVER

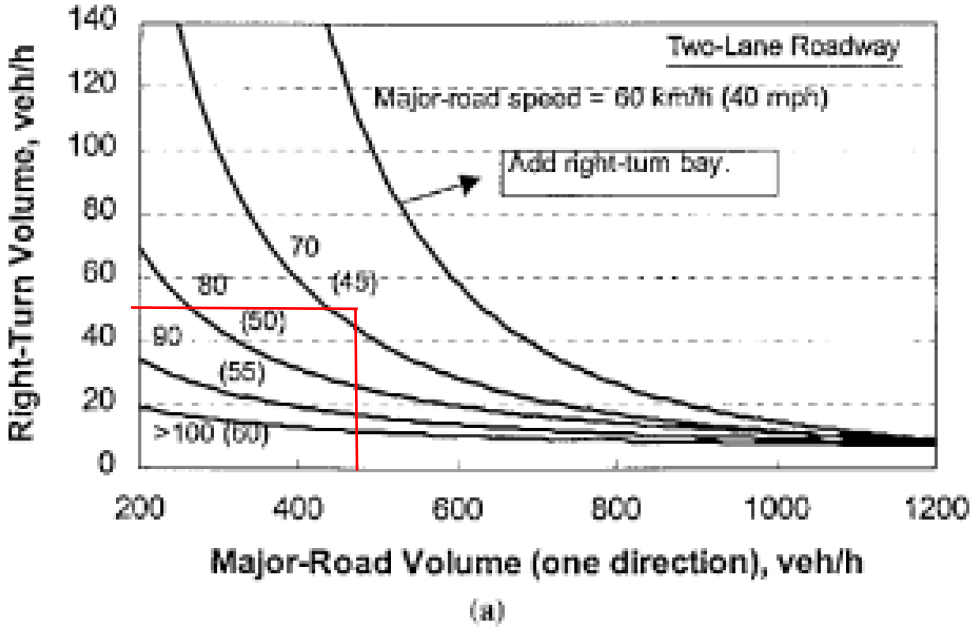
EXISTING PM PEAK HOUR CALCULATIONS

Movement	Volume (1	Lanes	LUF (2	Lane Vol. (1)*(2)	Opposing Lefts/Lane	Critical Lane Vol.	Crit?
Southbound	207	2	0.55	114	93	207	Yes
Northbound	238	2	0.55	131	66	197	No
Eastbound	245	2	0.55	135	85.5	220	Yes
Westbound	257	2	0.55	141	60	201	No
				TOTAL		**427**	V/C
Remarks:				LEVEL OF SERVICE		**A**	0.28

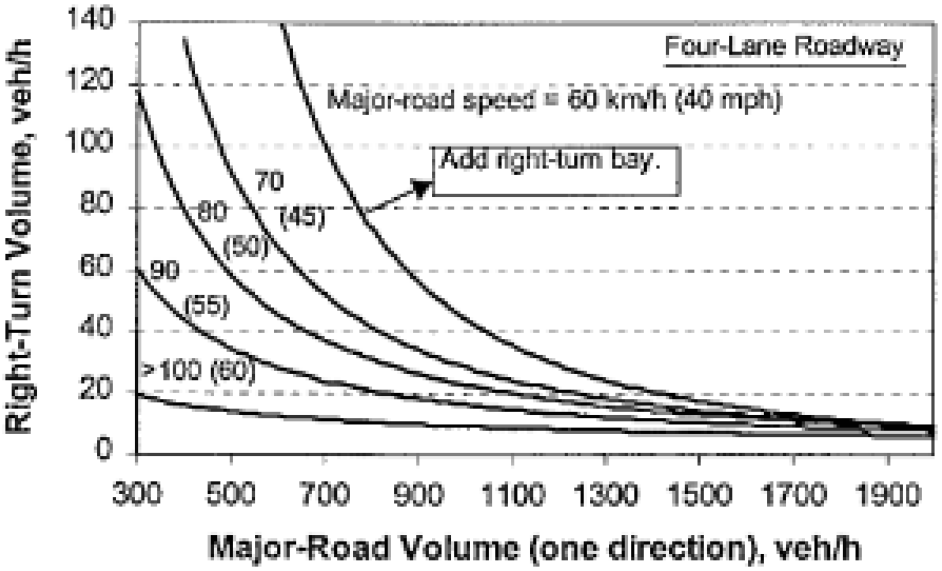
PM PEAK Hour CALCULATIONS

Movement	Volume (1	Lanes	LUF (2)	Lane Vol. (1)*(2)	Opposing Lefts/Lane	Critical Lane Vol.	Crit?
Southbound	220	2	0.55	121	105	226	Yes
Northbound	253	2	0.55	139	70	209	No
Eastbound	284	2	0.55	156	91	247	Yes
Westbound	297	2	0.55	163	69.5	233	No
				TOTAL		**473**	V/C
Remarks:				LEVEL OF SERVICE		**A**	0.32

D.O.T. HC #: 0



(a)



(b)

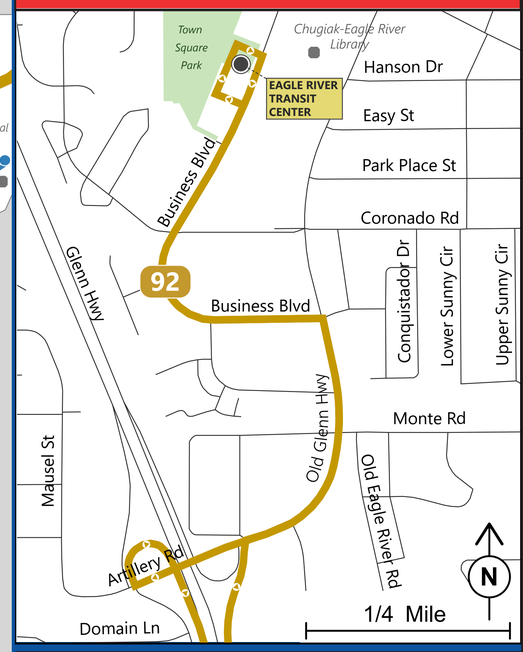
Figure 2-6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

Anchorage Transit Map

Effective Date: September 20, 2021

PEOPLE MOVER

Eagle River



Legend

Frequent Routes
15 min peak frequency

- 10 Northern Lights
- 20 Mountain View
- 30 Debarr
- 40 Spenard/Airport

Standard Routes
15 - 60 min peak frequency

- 25 Tudor *(15-30 min)* See schedule
- 35 Arctic *(30 min)*
- 55 Lake Otis *(30 min)*
- 65 Jewel Lake/Airport *(60 min)*
- 85 Old Seward/ West Anchorage *(60 min)*

Neighborhood Routes
30 or 60 min peak frequency

- 21 Mountain View / Northway Loop * *(30 min)*
- 31 Northeast * *(30 min)*
- 11 Senior Center Loop *(60 min)*
- 41 Government Hill Loop *(60 min)*

Commuter Routes
Rush hour service

- 91 Huffman *
- 92 Eagle River

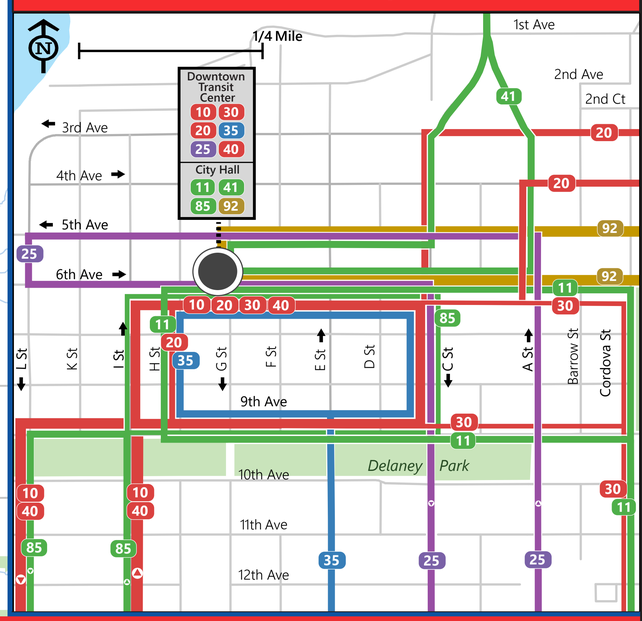
Bus Type

- 40-foot bus
- 22-foot bus

* *Operated with 22-foot buses*

- Schools
- Points of Interest
- Medical Facilities
- Airports
- Transit Center/Hub
- Key Transfer Points

Downtown Inset Map



peoplemover.org

907.343.6543

Crash Summary

Appendix C

Collision Events
Date: **1/1/2015 - 12/31/2020**
Intersection Related: **Yes**
Location: **Street: SAND LAKE ROAD RASPBERRY ROAD (SOUTH SIDE)**

Date	Time	Dist	Dir	Street	Cross Reference	1st Harmful Event Location	Most Harmful Event	Impact	Unit No.	Most Contributing Unit	Unit Event	Vehicle Action	Human Circum 1	Human Circum 2	Alcohol / Drugs Suspected	Int Related
12/28/2015	10:47 AM	0 ft.	None	SAND LAKE ROAD, ANCHORAGE	RASPBERRY ROAD, ANCHORAGE	Roadside	Utility Pole/Light Support	Other	1	Yes	Ran Off Roadway-Right	Straight ahead	Drove off road	Unsafe speed	No / No	Related
11/6/2018	6:31 PM	500 ft.	South	SAND LAKE ROAD, ANCHORAGE	RASPBERRY ROAD, ANCHORAGE	Roadway	Live Animal - Moose	Angle	1	Yes	Live Animal - Moose	Straight ahead	No improper driving		No / No	Related
11/9/2019	10:44 AM	100 ft.	South	SAND LAKE ROAD, ANCHORAGE	RASPBERRY ROAD, ANCHORAGE	Roadway	Overturn/Rollover	Not a Collision with a Motor Vehicle In-Transport	1	Yes	Ditch	Straight ahead	Swerve to Avoid Object	Swerve to Avoid Object	No / No	Related

Collision Events
Date: **1/1/2015 - 12/31/2020**
Intersection Related: **Yes**
Location: **Street: SAND LAKE ROAD RASPBERRY ROAD (NORTH SIDE)**

Date	Time	Dist	Dir	Street	Cross Reference	1st Harmful Event Location	Most Harmful Event	Impact	Unit No.	Most Contributing Unit	Unit Event	Vehicle Circumstances 1	Vehicle Circumstances 2	Vehicle Action	Human Circum 1	Human Circum 2	Human Circum 3	Human Circum 4	Alcohol / Drugs Suspected	Int Related
6/1/2016	4:08 PM	0 ft.	None	SAND LAKE ROAD, ANCHORAGE	RASPBERRY ROAD, ANCHORAGE	Roadway	Motor Vehicle In-Transport	Angle	1	Yes	Motor Vehicle In-Transport	None		Straight ahead	Failure to yield				No / No	Related
6/1/2016	4:08 PM	0 ft.	None	SAND LAKE ROAD, ANCHORAGE	RASPBERRY ROAD, ANCHORAGE	Roadway	Motor Vehicle In-Transport	Angle	2	No	Motor Vehicle In-Transport	None		Straight ahead	No improper driving				No / No	Related
3/29/2017	12:03 PM	0 ft.	None	SAND LAKE ROAD, ANCHORAGE	RASPBERRY ROAD, ANCHORAGE	Roadway	Motor Vehicle In-Transport	Angle	1	Yes	Motor Vehicle In-Transport	None		Turning left	Failure to yield				No / No	Related
3/29/2017	12:03 PM	0 ft.	None	SAND LAKE ROAD, ANCHORAGE	RASPBERRY ROAD, ANCHORAGE	Roadway	Motor Vehicle In-Transport	Angle	2	No	Motor Vehicle In-Transport	None		Straight ahead	No improper driving				No / No	Related
3/6/2018	5:07 PM	0 ft.	None	RASPBERRY ROAD, ANCHORAGE	SOUTH AIRPARK PLACE, ANCHORAGE	Roadside	Snow Bank	Other	1	Yes	Ran Off Roadway-Left	None		Straight ahead	Swerve to Avoid Object				No / No	Related

Synchro Data and Results

Appendix D

Intersection	
Int Delay, s/veh	8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	76	16	321	79	17	28	2	0	44	8	0
Future Vol, veh/h	0	76	16	321	79	17	28	2	0	44	8	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	83	17	349	86	18	30	2	0	48	9	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	104	0	0	100	0	0	890	894	92	886	893	95
Stage 1	-	-	-	-	-	-	92	92	-	793	793	-
Stage 2	-	-	-	-	-	-	798	802	-	93	100	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1488	-	-	1493	-	-	264	280	965	265	281	962
Stage 1	-	-	-	-	-	-	915	819	-	382	400	-
Stage 2	-	-	-	-	-	-	380	396	-	914	812	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1488	-	-	1493	-	-	210	214	965	216	215	962
Mov Cap-2 Maneuver	-	-	-	-	-	-	210	214	-	216	215	-
Stage 1	-	-	-	-	-	-	915	819	-	382	306	-
Stage 2	-	-	-	-	-	-	283	303	-	912	812	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	6.3	24.8	25.7
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	210	214	1488	-	-	1493	-	-	216	215
HCM Lane V/C Ratio	0.145	0.01	-	-	-	0.234	-	-	0.221	0.04
HCM Control Delay (s)	25	22	0	-	-	8.1	-	-	26.3	22.4
HCM Lane LOS	D	C	A	-	-	A	-	-	D	C
HCM 95th %tile Q(veh)	0.5	0	0	-	-	0.9	-	-	0.8	0.1

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	93	21	95	14	74	3	21	5	56	11	0
Future Vol, veh/h	3	93	21	95	14	74	3	21	5	56	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	101	23	103	15	80	3	23	5	61	12	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	95	0	0	124	0	0	386	420	113	394	391	55
Stage 1	-	-	-	-	-	-	119	119	-	261	261	-
Stage 2	-	-	-	-	-	-	267	301	-	133	130	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1499	-	-	1463	-	-	573	525	940	566	545	1012
Stage 1	-	-	-	-	-	-	885	797	-	744	692	-
Stage 2	-	-	-	-	-	-	738	665	-	870	789	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1499	-	-	1463	-	-	532	487	940	513	506	1012
Mov Cap-2 Maneuver	-	-	-	-	-	-	532	487	-	513	506	-
Stage 1	-	-	-	-	-	-	883	795	-	743	644	-
Stage 2	-	-	-	-	-	-	673	618	-	838	787	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	4	12.1	12.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	532	537	1499	-	-	1463	-	-	513	506
HCM Lane V/C Ratio	0.006	0.053	0.002	-	-	0.071	-	-	0.119	0.024
HCM Control Delay (s)	11.8	12.1	7.4	0	-	7.6	-	-	13	12.3
HCM Lane LOS	B	B	A	A	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0	0.2	0	-	-	0.2	-	-	0.4	0.1

Intersection	
Int Delay, s/veh	10.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	76	16	321	79	59	28	13	0	86	16	0
Future Vol, veh/h	0	76	16	321	79	59	28	13	0	86	16	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	83	17	349	86	64	30	14	0	93	17	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	150	0	0	100	0	0	917	940	92	915	916	118
Stage 1	-	-	-	-	-	-	92	92	-	816	816	-
Stage 2	-	-	-	-	-	-	825	848	-	99	100	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1431	-	-	1493	-	-	253	264	965	253	272	934
Stage 1	-	-	-	-	-	-	915	819	-	371	391	-
Stage 2	-	-	-	-	-	-	367	378	-	907	812	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1431	-	-	1493	-	-	195	202	965	197	208	934
Mov Cap-2 Maneuver	-	-	-	-	-	-	195	202	-	197	208	-
Stage 1	-	-	-	-	-	-	915	819	-	371	300	-
Stage 2	-	-	-	-	-	-	265	290	-	891	812	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	5.7	26	36.5
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	195	202	1431	-	-	1493	-	-	197	208
HCM Lane V/C Ratio	0.156	0.07	-	-	-	0.234	-	-	0.475	0.084
HCM Control Delay (s)	26.8	24.2	0	-	-	8.1	-	-	38.8	23.9
HCM Lane LOS	D	C	A	-	-	A	-	-	E	C
HCM 95th %tile Q(veh)	0.5	0.2	0	-	-	0.9	-	-	2.3	0.3

Intersection	
Int Delay, s/veh	8.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	84	17	354	87	19	30	2	0	44	9	0
Future Vol, veh/h	0	84	17	354	87	19	30	2	0	44	9	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	91	18	385	95	21	33	2	0	48	10	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	116	0	0	109	0	0	981	986	100	977	985	106
Stage 1	-	-	-	-	-	-	100	100	-	876	876	-
Stage 2	-	-	-	-	-	-	881	886	-	101	109	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1473	-	-	1481	-	-	229	248	956	230	248	948
Stage 1	-	-	-	-	-	-	906	812	-	344	367	-
Stage 2	-	-	-	-	-	-	341	363	-	905	805	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1473	-	-	1481	-	-	176	184	956	182	184	948
Mov Cap-2 Maneuver	-	-	-	-	-	-	176	184	-	182	184	-
Stage 1	-	-	-	-	-	-	906	812	-	344	272	-
Stage 2	-	-	-	-	-	-	243	269	-	903	805	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	6.4	29.7	30.7
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	176	184	1473	-	-	1481	-	-	182	184
HCM Lane V/C Ratio	0.185	0.012	-	-	-	0.26	-	-	0.263	0.053
HCM Control Delay (s)	30	24.8	0	-	-	8.3	-	-	31.7	25.7
HCM Lane LOS	D	C	A	-	-	A	-	-	D	D
HCM 95th %tile Q(veh)	0.7	0	0	-	-	1	-	-	1	0.2

Intersection	
Int Delay, s/veh	12.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	84	17	354	87	61	30	13	0	86	17	0
Future Vol, veh/h	0	84	17	354	87	61	30	13	0	86	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	91	18	385	95	66	33	14	0	93	18	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	161	0	0	109	0	0	1007	1031	100	1005	1007	128
Stage 1	-	-	-	-	-	-	100	100	-	898	898	-
Stage 2	-	-	-	-	-	-	907	931	-	107	109	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1418	-	-	1481	-	-	219	233	956	220	241	922
Stage 1	-	-	-	-	-	-	906	812	-	334	358	-
Stage 2	-	-	-	-	-	-	330	346	-	898	805	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1418	-	-	1481	-	-	162	172	956	165	178	922
Mov Cap-2 Maneuver	-	-	-	-	-	-	162	172	-	165	178	-
Stage 1	-	-	-	-	-	-	906	812	-	334	265	-
Stage 2	-	-	-	-	-	-	227	256	-	882	805	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	5.8	31.2	48.1
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	162	172	1418	-	-	1481	-	-	165	178
HCM Lane V/C Ratio	0.201	0.082	-	-	-	0.26	-	-	0.567	0.104
HCM Control Delay (s)	32.7	27.8	0	-	-	8.3	-	-	52.1	27.6
HCM Lane LOS	D	D	A	-	-	A	-	-	F	D
HCM 95th %tile Q(veh)	0.7	0.3	0	-	-	1	-	-	2.9	0.3