



TRAFFIC IMPACT STUDY

MEADOWS MEDICAL PLAZA

Castle Rock, CO

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- B. Base Assumptions Form
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Executive Summary

Site Location and Study Area

The property that comprises the application area for the proposed development is approximately 1.49 acres in size and is identified as a portion of the larger Douglas County Parcel Number 2351-342-01-004. It is located on the northeast quadrant of the Meadows Boulevard/Red Hawk Drive intersection in Castle Rock, Colorado. The subject site is zoned for Planned Development (Meadows Third Amendment) and is partially vacant and partially occupied by a church use and parking lot.

The study area is generally bounded by Prairie Hawk Drive to the north, Red Hawk Drive to the south, Meadows Parkway to the west, and Low Meadow Boulevard to the east. The study area for the project includes those intersections identified that could be affected by the proposed development:

- Prairie Hawk Drive/Meadows Parkway
- Prairie Hawk Drive/New Hope Way
- Prairie Hawk Drive/Low Meadow Boulevard
- Red Hawk Drive/Meadows Boulevard
- Red Hawk Drive/New Hope Way
- Proposed Site Accesses

Description of Proposed Development

The Applicant, DCP Meadows Medical LLC, seeks to develop the property with a Medical Office use. Site access is proposed via two existing full movement accesses on New Hope Way.

Conclusions and Recommendations

Conclusions

Based on the results of this traffic impact study, the following may be concluded:

- Under existing traffic conditions, the signalized intersections within the study area currently operate at levels of service (LOS) "C" during the weekday AM and PM peak hours.
- Under existing traffic conditions, the movements for unsignalized intersections within the study area currently operate at overall acceptable levels of service (LOS) "D" or better during the weekday AM and PM peak hours with the exception of the eastbound and westbound left turn movements at the Red Hawk Drive/Meadows Boulevard intersection which operate at LOS "F" and LOS "E" respectively in the weekday PM peak hour.
- Under existing traffic conditions, the queues for the intersections within the study area remain within their respective storage lengths.
- Under background future traffic conditions, without the development of the subject site, study intersections would continue operate generally consistent with existing conditions.
- The proposed site development would generate, upon completion and full occupancy, 149 new weekday AM and 235 new weekday PM peak hour vehicle trips as well as 2,110 new weekday daily trips.

- Under total future traffic conditions with development of the site, study intersections would continue operate to generally consistent with background conditions.
- Under total future traffic conditions with development of the site, all forecasted queues at the study intersections would be contained within their effective storage.

Recommendations

- The Applicant should provide access consistent with the site plan contained herein.

I. Introduction

Overview

This report presents the results of a Traffic Impact Study conducted in support of a site plan to develop a Medical Office use in Castle Rock, Colorado. Currently the site is partially vacant and partially occupied by church use and parking lot. The site is zoned for Planned Development (Meadows Third Amendment).

Per Section 7 of the Town of Castle Rock Transportation Design Criteria Manual, a transportation impact analysis (TIA) is required when the project-generated trips exceed 200 vehicles per day.

Site Location and Study Area

The property that comprises the application area for the proposed development is 1.49 acres in size and is identified as Douglas County Parcel Number 2351-342-01-004. It is located on the northeast quadrant of the Meadows Boulevard/Red Hawk Drive intersection in Castle Rock, Colorado, as shown on Figure 1-1. Site access is proposed via two existing full movement accesses on New Hope Way.

The Applicant, DCP Meadows Medical LLC, seeks to develop the property with a Medical Office use. A reduction of the Applicant's proposed conceptual site plan is provided on Figure 1-2. A full-size copy of the plan is provided in Appendix A.

The study area is generally bounded by Prairie Hawk Drive to the north, Red Hawk Drive to the south, Meadows Parkway to the west, and Low Meadow Boulevard to the east.

Tasks undertaken in the course of this study included the following:

1. Reviewed the Applicant's proposed development plans and other background data.
2. Conducted a virtual field reconnaissance of existing roadway and intersection geometries, traffic controls, and speed limits.
3. Conducted weekday AM and PM peak hour turning movement counts at the key intersections.
4. Analyzed existing levels of service at each of the key study intersections based on the methodologies set forth in the Highway Capacity Guidelines (HCM) 7th Edition as reported by Synchro version 12.
5. Forecasted background future traffic volumes based on baseline traffic counts and regional traffic growth for 2026 build out & 2046 long range conditions.
6. Calculated background levels of service at each of the key study intersections for the projected build-out years based on background future traffic forecasts, and the existing lane use and traffic controls.
7. Estimated the number of AM and PM peak hour trips that would be generated by the proposed use based on the Institute of Transportation Engineers (ITE) 11th Edition Trip Generation Manual rates/equations and methodologies.
8. Prepared AM and PM peak hour total future traffic forecasts based on background traffic forecasts plus site traffic assignments for the 2026 build out & 2046 long range conditions.
9. Calculated total future levels of service for each of the key study intersections based on projected total future traffic forecasts, existing/future traffic controls and intersection geometries.

10. Identified roadway improvements required to accommodate future traffic volumes as necessary.

Sources of data for this analysis included the Institute of Transportation Engineers (ITE), Trip Generation, 12th edition, the Highway Capacity Guidelines HCM 7th, Synchro12, Town of Castle Rock, Colorado, and the files/library of Galloway.

Site Description and Access

Site Conditions

The terrain proximate to and surrounding the site is generally classified as "level".

Hazardous Conditions

Based on the field reconnaissance in the vicinity of the subject site, no hazardous features or constraints were identified.

Proposed Site Access

Site access is proposed via two existing full movement accesses on New Hope Way.

Existing Zoning

The subject site is zoned for Planned Development and is currently partially vacant and partially occupied by a church use. Figure 1-3 depicts the zoning associated with the subject property, as well as neighboring properties as shown on the Castle Rock zoning map.

Nearby Uses

The properties surrounding the subject site are generally developed with residential to the south and east, with commercial uses to the west and north.



FIGURE 1-1
SITE LOCATION



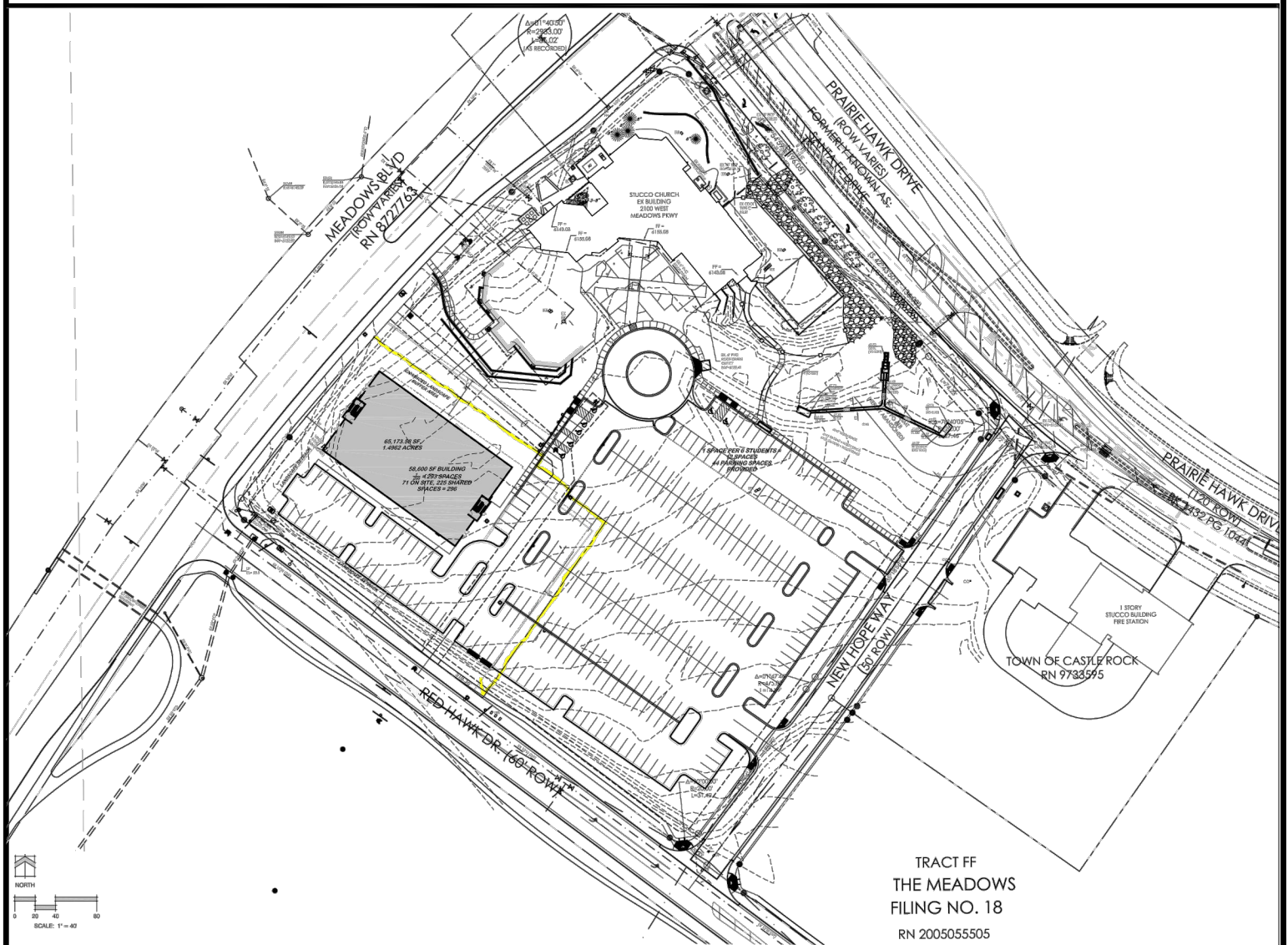


FIGURE 1-2
SITE PLAN

MEADOWS MEDICAL PLAZA
CASTLE ROCK, CO





FIGURE 1-3
EXISTING ZONING



II. Background Information

Study Area

The study area was determined by a review of intersections that would experience a significant portion of turning movement volumes generated by the site. As such, the traffic study focuses primarily on the following intersections:

Study Intersections

- Prairie Hawk Drive/Meadows Parkway
- Prairie Hawk Drive/New Hope Way
- Prairie Hawk Drive/Low Meadow Boulevard
- Red Hawk Drive/Meadows Boulevard
- Red Hawk Drive/New Hope Way
- Proposed Site Accesses.

The study intersections, as well as additional study assumptions were confirmed via base assumptions from and subsequent conversations with Staff. The approved base assumptions form is provided as Appendix B.

Study Assumptions

For purposes of this analysis only, a medical office use was analyzed and assumed to be built and operational by study year 2026. A long range analysis of 2046 is also provided.

Study Methodology

Synchro software version 12 was used to evaluate levels of service at each of the study intersections during the weekday AM and PM peak hours. Synchro is a macroscopic model used for optimizing traffic signal timing and performing capacity analyses. The software can model existing traffic signal timings or optimize splits, offsets, and cycle lengths for individual intersections, an arterial, or a complete network. Synchro allows the user to evaluate the effects of changing intersection geometrics, traffic demands, traffic control, and/or traffic signal settings as well as optimize traffic signal timings.

The levels of service reported for the unsignalized intersections analyzed herein were taken from the Highway Capacity Manual (HCM) 7th reports generated by Synchro 12. Level of service descriptions are included in Appendix C.

A default percent heavy vehicle (%HV) of 2% was applied to study intersections.

Existing Roadway Network

Regional access to the subject site is provided by Meadows Parkway/Meadows Boulevard and Prairie Hawk Drive and local access is provided via Red Hawk Drive and Low Meadow Boulevard. Figure 2-1 depicts existing lane use and traffic controls in the vicinity of the subject site. The following provides a description of each of the roadways within the study network.

Meadows Boulevard/Meadows Parkway

Meadows Boulevard/Meadows Parkway is constructed as a north/south median divided four-lane section with turn-lanes at intersection approaches and a posted speed limit of 45 mph in the vicinity of the subject site. The Town of Castle Rock classifies the roadway as a Major Arterial. The intersection with Prairie Hawk

Drive operates under signalized control and the intersection with Red Hawk Drive operates under stop control.

Prairie Hawk Drive

Prairie Hawk Drive is constructed as an east/west median divided four-lane section with turn-lanes at intersection approaches and a posted speed limit of 45 mph in the vicinity of the subject site. The Town of Castle Rock classifies the roadway as a Major Arterial. The intersection with Meadows Boulevard/Meadows Parkway operates under signalized control and the intersection with Low Meadow Boulevard operates under stop control.

Red Hawk Drive

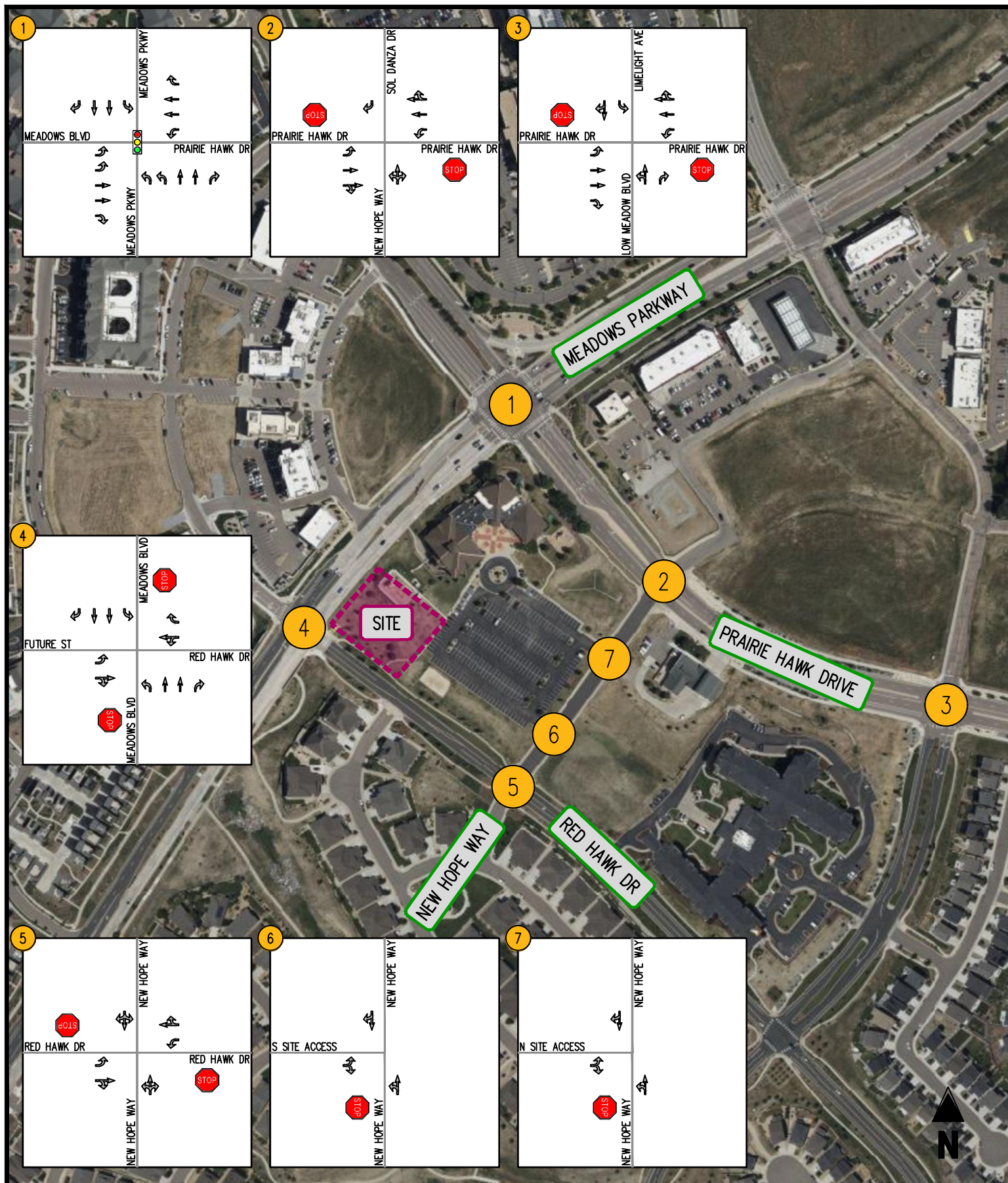
Red Hawk Drive is constructed as an east/west undivided two-lane section with turn-lanes at intersection approaches and a posted speed limit of 30 mph in the vicinity of the subject site. The Town of Castle Rock classifies the roadway as a Collector. The intersection with Meadows Boulevard/Meadows Parkway operates under stop control.

Low Meadow Boulevard

Low Meadow Boulevard is constructed as a north/south median divided two-lane section with turn-lanes at intersection approaches and a posted speed limit of 30 mph in the vicinity of the subject site. The Town of Castle Rock classifies the roadway as a Collector. The intersection with Prairie Hawk Drive operates under stop control.

Assumed Improvements

No funded/programmed roadway improvements were identified at the study intersections.



**FIGURE 2-1
EXISTING LUTC**

MEADOWS MEDICAL PLAZA
CASTLE ROCK, CO

- MOVEMENT
- SIGNALIZED INTERSECTION
- STOP SIGN
- YIELD SIGN



III. Analysis of Existing Conditions

Traffic Volumes

Weekday AM and PM peak hour traffic volumes counts were conducted on Wednesday, August 7, 2024 from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM at the study intersections by IDAX Data Solutions.

For purposes of this study, the peak hour of the network was selected based on a review of the intersection volumes.

The existing volumes are summarized on Figure 3-1. Copies of traffic counts are included in Appendix D. Existing peak hour factors (PHF) were also computed by approach from the traffic counts and applied to the analysis with a minimum of 0.85 and a maximum of 0.92.

Operational Analysis

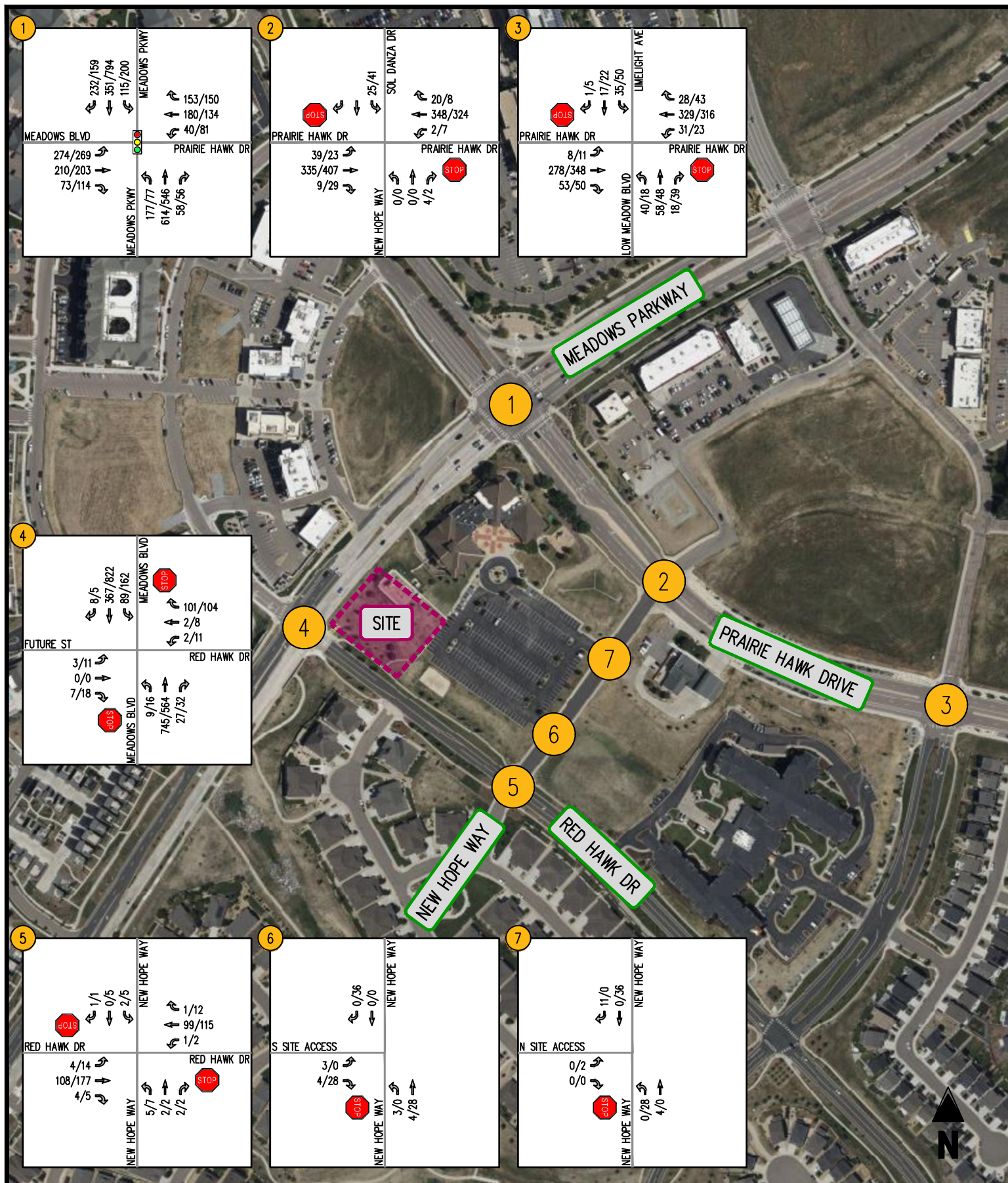
Capacity/level of service analyses were conducted at the study intersections based on the existing lane use and traffic controls shown on Figure 2-1 and existing baseline vehicular traffic volumes shown on Figure 3-1. The capacity analysis results are presented in Appendix E and summarized in Table 3-1 and on Figure 3-2.

As shown in Table 3-1, the signalized intersection within the study area currently operates at levels of service (LOS) "C" during the weekday AM and PM peak hours. Movements for the unsignalized intersections within the study area currently operate at overall acceptable LOS "D" or better during the weekday AM and PM peak hours, with the exception of the Red Hawk Drive/Meadows Boulevard intersection eastbound left movement which operates at LOS "F" and the westbound left movement which operates at LOS "E" in the weekday PM peak hour.

Existing Intersection Queues

An analysis of intersection 95th-percentile queues was performed at key locations. The results of the queuing analysis, as reported by Synchro, are summarized in Table 3-2.

As shown in the table, the existing queues are contained within the effective storage within the study area.



**FIGURE 3-1
EXISTING VOLUMES**

MEADOWS MEDICAL PLAZA
CASTLE ROCK, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

- ← MOVEMENT
- SIGNALIZED INTERSECTION
- STOP SIGN
- YIELD SIGN



Table 3-1
Meadows Medical Plaza - Castle Rock, CO
Existing Intersection Level of Service Summary (1) (2)

Intersection	Operating Condition	Street Name	Approach/ Movement	Existing 2024	
				AM Peak Hour	PM Peak Hour
1 Meadows Boulevard/Prairie Hawk Drive	SIGNAL	Meadows Blvd	EBL	C (31.9)	C (34.0)
			EBT	D (36.2)	D (39.4)
			EBR	D (35.9)	D (44.6)
		Prairie Hawk Dr	WBL	D (35.8)	D (36.1)
			WBT	D (52.9)	D (42.9)
			WBR	A (0.0)	A (0.0)
		Meadows Blvd	NBL	B (10.7)	B (12.4)
			NBT	B (16.2)	B (16.4)
			NBR	B (13.1)	B (13.8)
		Meadows Blvd	SBL	B (11.8)	B (11.5)
			SBT	B (14.1)	B (14.8)
			SBR	A (0.0)	A (0.0)
		Overall		C (23.4)	C (22.7)
2 Prairie Hawk Drive/New Hope Way	STOP	Prairie Hawk Dr	EBL	A [8.3]	A [8.1]
			EBTR	A [0.0]	A [0.0]
		Prairie Hawk Dr	WBL	A [8.1]	A [8.3]
			WBTR	A [0.0]	A [0.0]
		New Hope Way	NBR	A [9.5]	A [9.7]
		Sol Danza Dr	SBR	A [0.0]	A [9.6]
3 Prairie Hawk Drive/Low Meadow Boulevard	STOP	Prairie Hawk Dr	EBL	A [8.2]	A [8.2]
			EBT	A [0.0]	A [0.0]
			EBR	A [0.0]	A [0.0]
		Prairie Hawk Dr	WBL	A [8.2]	A [8.4]
			WBTR	A [0.0]	A [0.0]
		Low Meadow Blvd	NBLT	C [23.5]	C [23.4]
			NBR	A [9.3]	A [9.7]
			SBL	C [23.0]	D [25.5]
4 Red Hawk Drive/Meadows Boulevard	STOP	Future St	EBL	C [22.7]	F [54.5]
			EBTR	A [8.7]	B [14.4]
		Red Hawk Dr	WBLT	D [31.4]	E [49.0]
			WBR	A [9.6]	A [9.4]
		Meadows Blvd	NBL	A [7.9]	A [8.9]
			NBT	A [0.0]	A [0.0]
			NBR	A [0.0]	A [0.0]
		Meadows Blvd	SBL	A [9.5]	A [8.9]
			SBT	A [0.0]	A [0.0]
			SBR	A [0.0]	A [0.0]
5 Red Hawk Drive/New Hope Way	STOP	Red Hawk Dr	EBL	A [7.5]	A [7.5]
			EBTR	A [0.0]	A [0.0]
		Red Hawk Dr	WBL	A [7.5]	A [7.7]
			WBTR	A [0.0]	A [0.0]
		New Hope Wy	NBLTR	B [10.1]	B [11.2]
		New Hope Wy	SBLTR	A [9.8]	B [11.5]
6 S Site Access/New Hope Way	STOP	S Site Access	EBLR	A [8.3]	A [8.4]
		New Hope Wy	NBLT	A [7.2]	A [0.0]
		New Hope Wy	SBTR	A [0.0]	A [0.0]
7 N Site Access/New Hope Way	STOP	N Site Access	EBLR	A [0.0]	A [9.1]
		New Hope Wy	NBLT	A [0.0]	A [7.3]
		New Hope Wy	SBTR	A [0.0]	A [0.0]

Notes : (1) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.
(2) Numbers in parenthesis () represent delay at signalized intersections in seconds per vehicle.

Table 3-2
Meadows Medical Plaza - Castle Rock, CO
Existing Intersection Queueing Summary (1)

Intersection	Operating Condition	Street Name	Approach/ Movement	Available Storage	Existing 2024	
					AM Peak Hour	PM Peak Hour
1 Meadows Boulevard/Prairie Hawk Drive	SIGNAL	Meadows Blvd	EBL	350	88	91
			EBT	-	92	95
			EBR	200	0	15
		Prairie Hawk Dr	WBL	240	37	67
			WBT	-	87	69
			WBR	230	0	0
		Meadows Blvd	NBL	180	28	11
			NBT	-	263	233
			NBR	-	14	12
		Meadows Blvd	SBL	400	69	108
			SBT	-	129	285
			SBR	180	0	0
2 Prairie Hawk Drive/New Hope Way	STOP	Prairie Hawk Dr	EBL	200	2.5	2.5
			EBTR	-	0	0
		Prairie Hawk Dr	WBL	150	0	0
			WBTR	-	0	0
		New Hope Wy	NBR	-	0	0
		Sol Danza Dr	SBR	-	2.5	5
3 Prairie Hawk Drive/Low Meadow Boulevard	STOP	Prairie Hawk Dr	EBL	160	0	0
			EBT	-	0	0
			EBR	250	0	0
		Prairie Hawk Dr	WBL	160	2.5	2.5
			WBTR	-	0	0
		Low Meadow Blvd	NBLT	-	40	27.5
			NBR	135	2.5	5
			SBL	90	15	25
		Limelight Ave	SBTR	-	5	10
4 Red Hawk Drive/Meadows Boulevard	STOP	Future St	EBL	100	2.5	12.5
			EBTR	-	0	5
		Red Hawk Dr	WBLT	200	2.5	20
			WBR	-	12.5	10
		Meadows Blvd	NBL	200	0	2.5
			NBT	-	0	0
			NBR	200	0	0
		Meadows Blvd	SBL	170	10	15
			SBT	-	0	0
			SBR	145	0	0
5 Red Hawk Drive/New Hope Way	STOP	Red Hawk Dr	EBL	140	0	0
			EBTR	-	0	0
		Red Hawk Dr	WBL	75	0	0
			WBTR	-	0	0
		New Hope Wy	NBLTR	-	0	2.5
		New Hope Wy	SBLTR	-	0	2.5
6 S Site Access/New Hope Way	STOP	S Site Access	EBLR	-	0	0
		New Hope Wy	NBLT	-	0	0
		New Hope Wy	SBTR	-	0	0
7 N Site Access/New Hope Way	STOP	N Site Access	EBLR	-	0	0
		New Hope Wy	NBLT	-	0	2.5
		New Hope Wy	SBTR	-	0	0

Notes : (1) Queue length, in feet, is based on the 95th percentile queue as reported by Synchro, Version 12.

IV. Analysis of Future Conditions without Site Development

Methodology

The future traffic forecasts, without the proposed new use, were developed for 2026 and 2046 conditions based on a composite of existing baseline traffic volumes and regional traffic. DRCOG and Town of Castle Rock traffic counts were referenced to determine growth rate in the area. After review of available data, traffic counts generally showed a decrease in the study area. In order to provide a conservative analysis, a 0.5% growth factor per year was applied to existing traffic along Meadows Boulevard/Parkway and Prairie Hawk Drive.

Regional Growth

Increases in traffic associated with regional growth were estimated at 0.5 percent per year compounded for movements along Meadows Boulevard/Parkway and Prairie Hawk Drive up to 2026 as well as to 2046. This growth accounts for increases in traffic resulting from influences outside of the immediate study area. The resulting increases in traffic within the study area are reflected on Figure 4-1 for 2026 build out year conditions and Figure 4-2 for 2046 long range conditions.

Background Traffic Forecasts

The existing traffic forecasts depicted on Figure 3-1 and the calculated regional growth shown on Figure 4-1 (2026) and Figure 4-2 (2046) were added together to yield the background future traffic forecasts shown on Figures 4-3 for 2026 conditions and Figure 4-4 for 2046 conditions.

Background Future Levels of Service

Capacity analyses of 2026 and 2046 future traffic conditions without the proposed development are provided in Appendix F and summarized in Table 4-1. The forecasted levels of service are also depicted graphically on Figure 4-5 for 2026 conditions and Figure 4-6 for 2046 conditions.

As shown on Table 4-1, the intersections within the study area would continue to operate generally consistent with existing conditions during the weekday AM and PM peak hours. Due to regional growth, the Red Hawk Drive/Meadows Boulevard intersection westbound left movement is expected to experience increase in delay and operate at LOS "F" in the weekday PM peak hour for long-range background 2046 conditions.

Background Future Queueing

An analysis of intersection queues was performed at key locations under background future traffic conditions. The results of the queueing analysis are summarized in Table 4-2.

As shown in the table, queues within the study network would be contained within their effective storage, consistent with existing conditions.

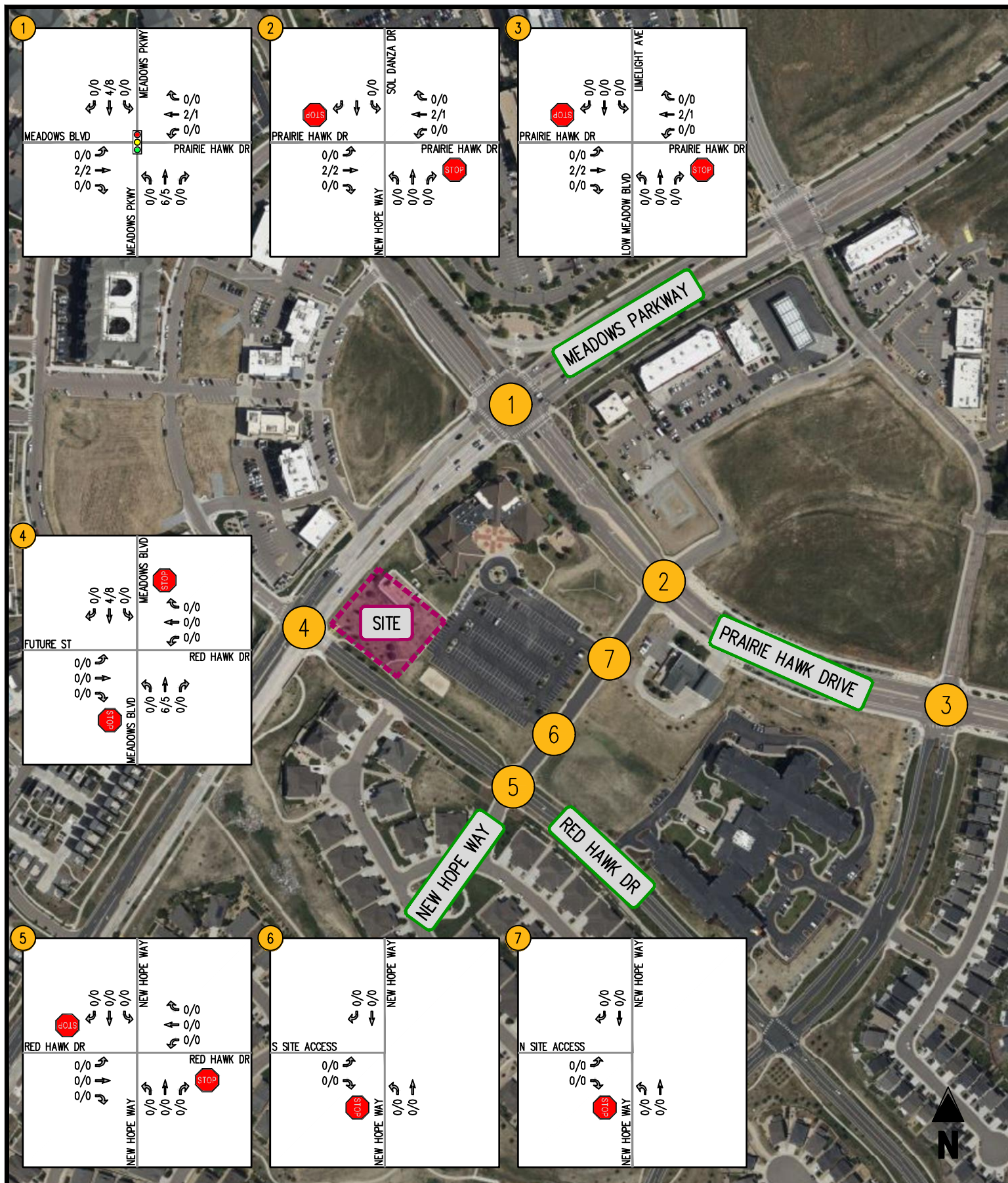


FIGURE 4-1
BACKGROUND GROWTH 2026

MEADOWS MEDICAL PLAZA
CASTLE ROCK, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT
 SIGNALIZED INTERSECTION
 STOP SIGN
 YIELD SIGN



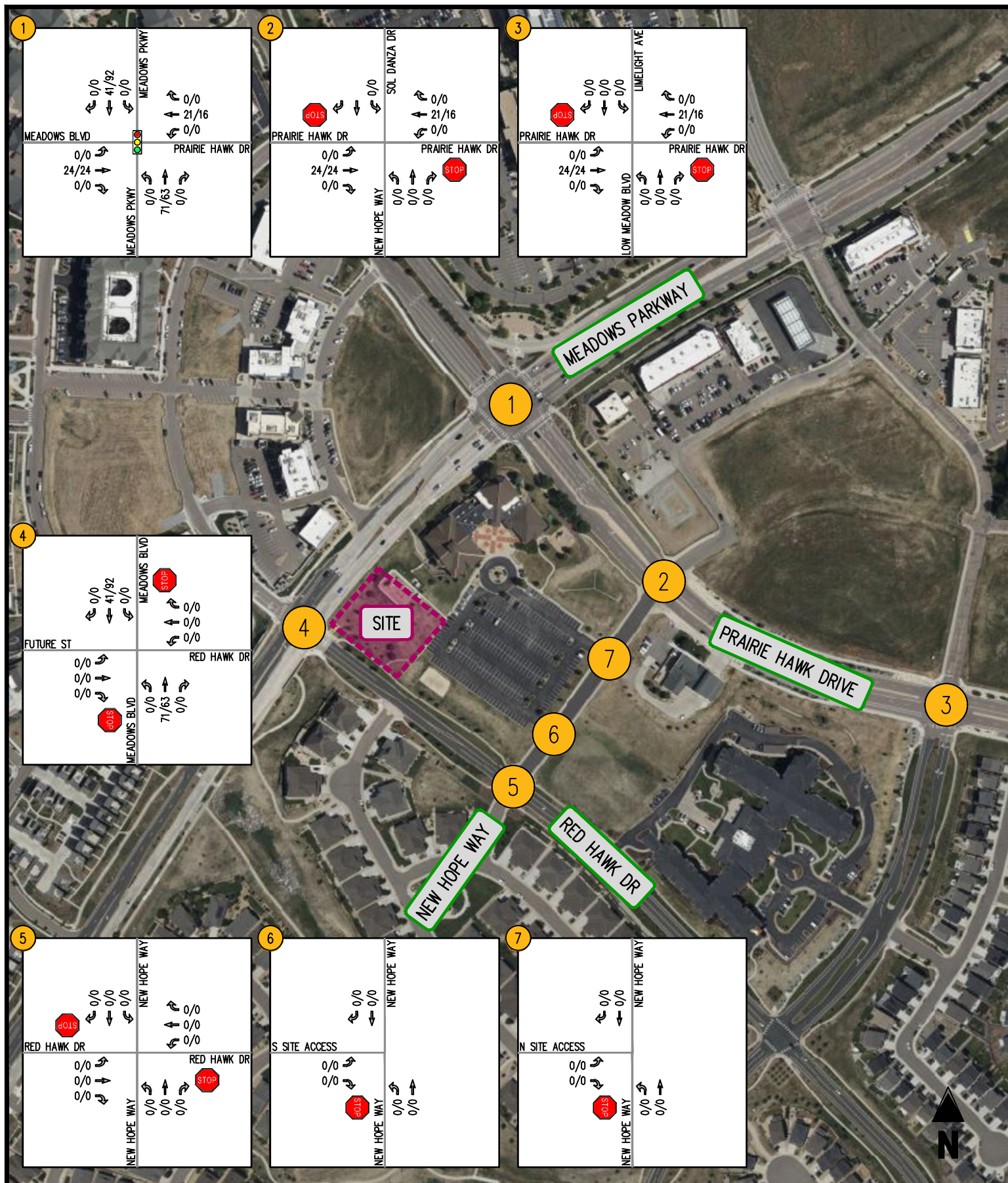


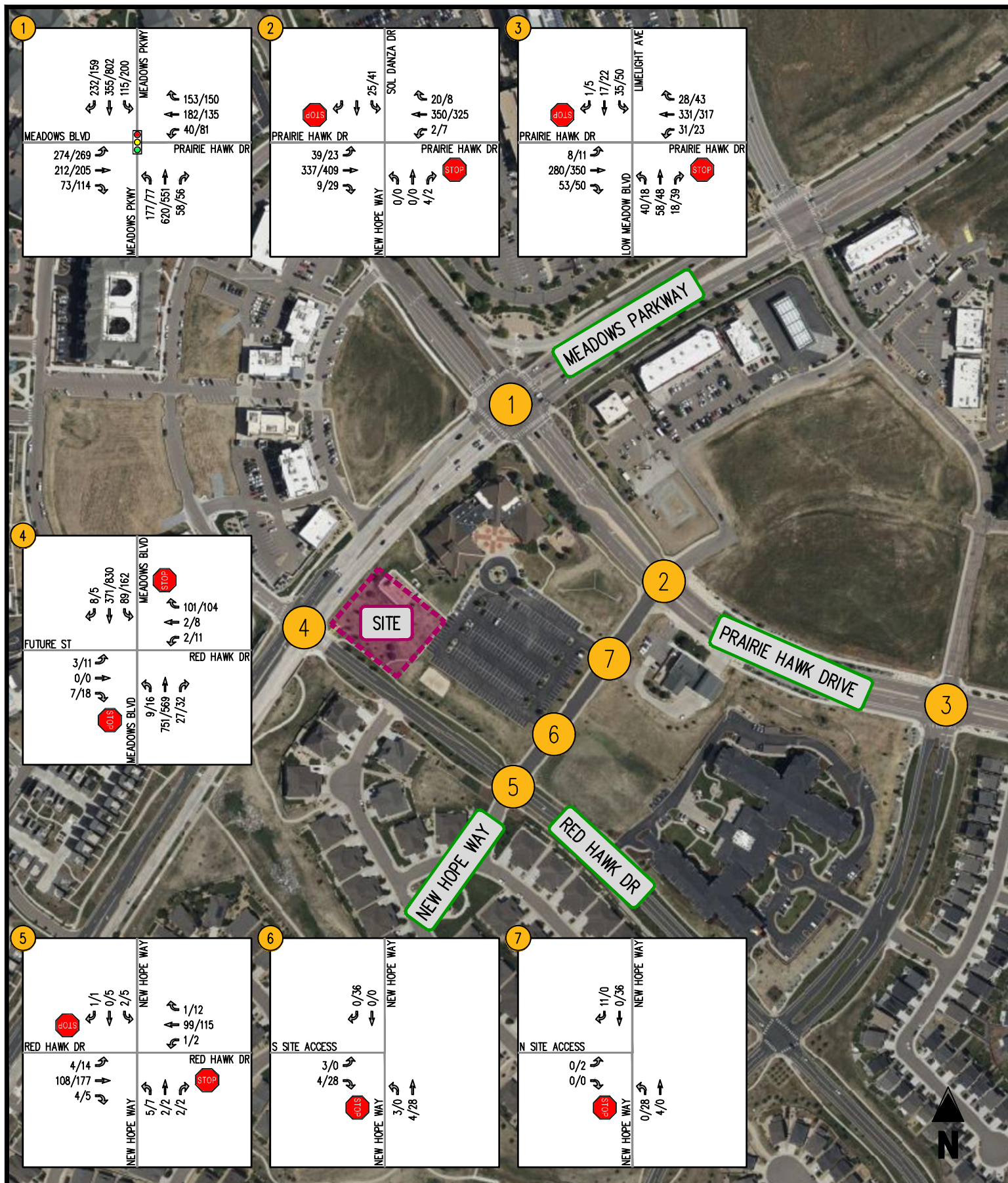
FIGURE 4-2
BACKGROUND GROWTH 2046

MEADOWS MEDICAL PLAZA
CASTLE ROCK, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT
 SIGNALIZED INTERSECTION
 STOP SIGN
 YIELD SIGN





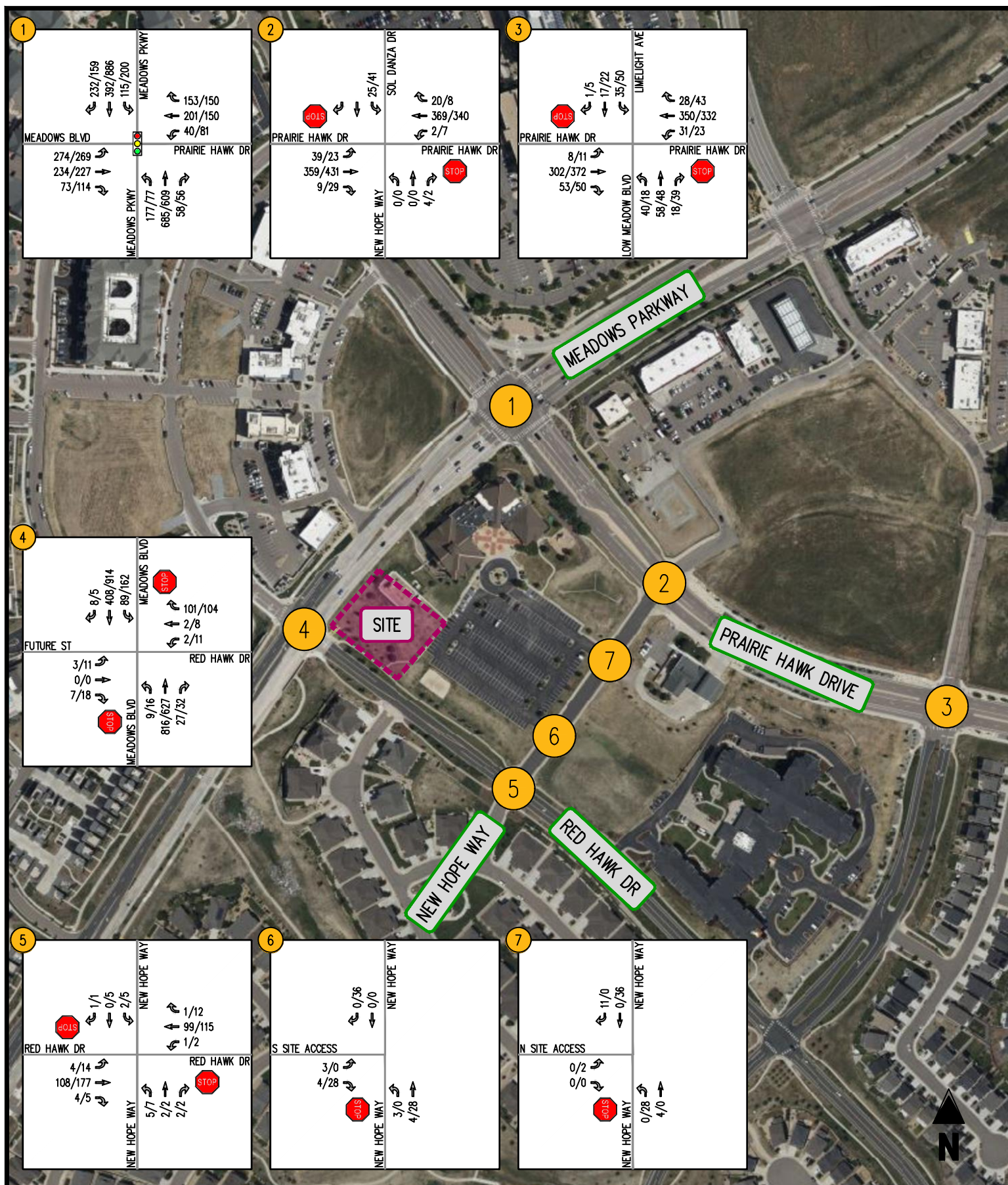
**FIGURE 4-3
BACKGROUND FORECASTS 2026**

MEADOWS MEDICAL PLAZA
CASTLE ROCK, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT
 SIGNALIZED INTERSECTION
 STOP SIGN
 YIELD SIGN





**FIGURE 4-4
BACKGROUND FORECASTS 2046**

MEADOWS MEDICAL PLAZA
CASTLE ROCK, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

- ← MOVEMENT
- ◫ SIGNALIZED INTERSECTION
- STOP STOP SIGN
- YIELD YIELD SIGN



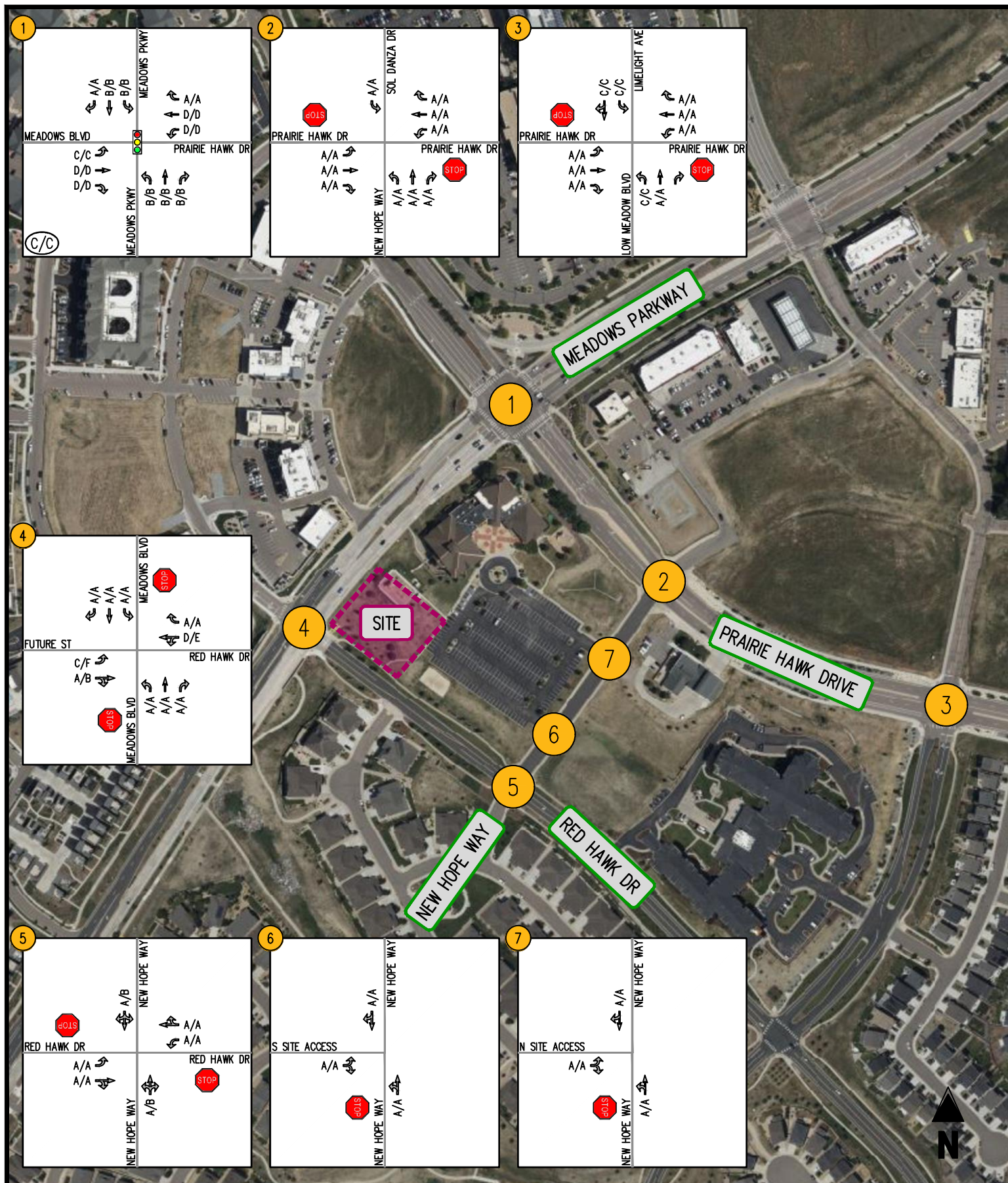


FIGURE 4-5
BACKGROUND FUTURE LOS 2026

MEADOWS MEDICAL PLAZA
CASTLE ROCK, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

- ← MOVEMENT
- 🚦 SIGNALIZED INTERSECTION
- 🛑 STOP SIGN
- 🚧 YIELD SIGN



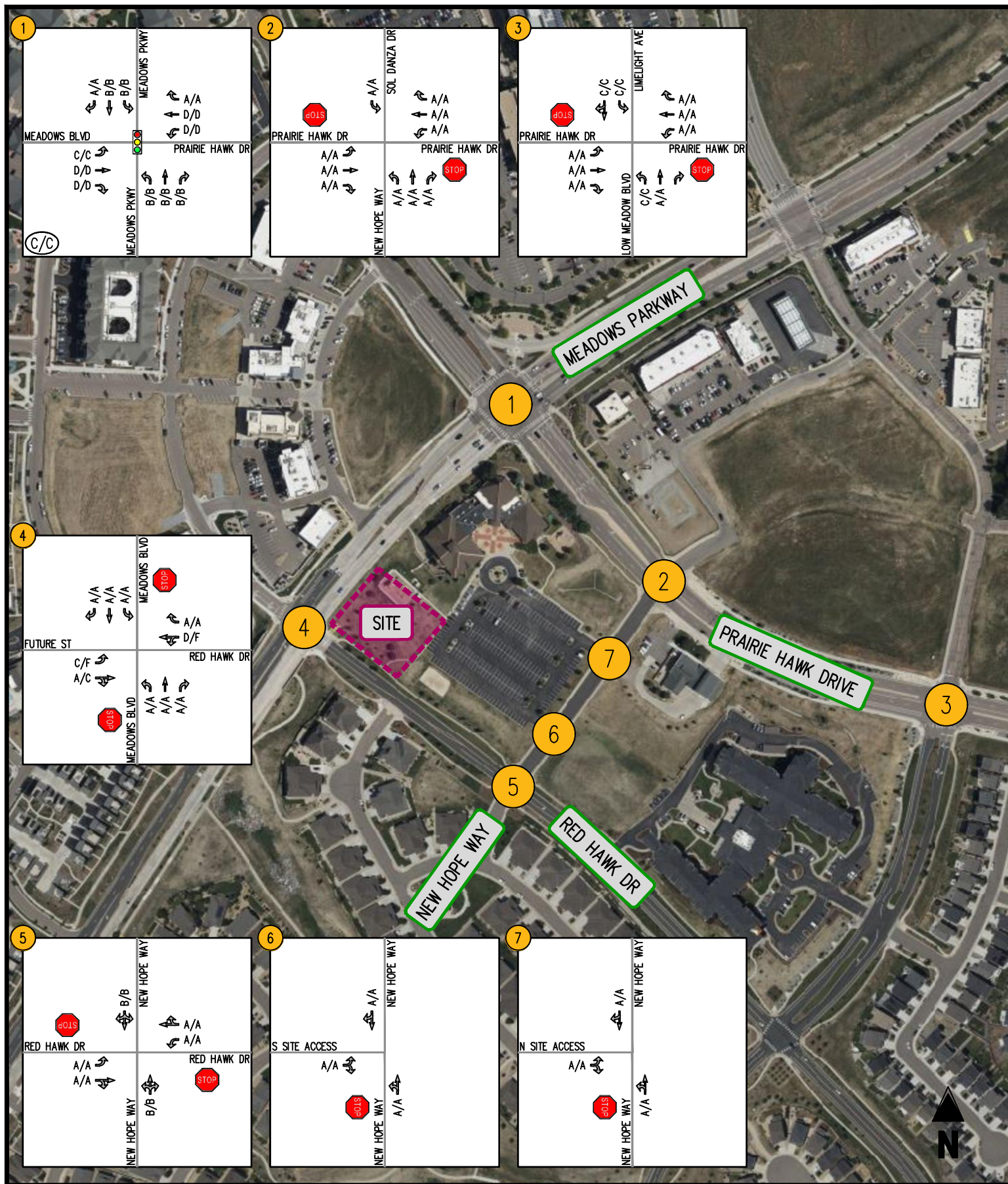


FIGURE 4-6
BACKGROUND FUTURE LOS 2046

MEADOWS MEDICAL PLAZA
CASTLE ROCK, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT
 SIGNALIZED INTERSECTION
 STOP SIGN
 YIELD SIGN



Table 4-1
Meadows Medical Plaza - Castle Rock, CO
Background Intersection Level of Service Summary (1) (2)

Intersection	Operating Condition	Street Name	Approach/ Movement	Existing 2024		Background 2026		Background 2046	
				AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1 Meadows Boulevard/Prairie Hawk Drive	SIGNAL	Meadows Blvd	EBL	C (31.9)	C (34.0)	C (32.5)	C (34.2)	C (32.5)	C (34.1)
			EBT	D (36.2)	D (39.4)	D (36.4)	D (39.6)	D (36.8)	D (40.3)
			EBR	D (35.9)	D (44.6)	D (36.1)	D (44.8)	D (36.0)	D (44.5)
		Prairie Hawk Dr	WBL	D (35.8)	D (36.1)	D (36.0)	D (36.1)	D (35.9)	D (36.1)
			WBT	D (52.9)	D (42.9)	D (49.6)	D (42.9)	D (54.9)	D (43.9)
			WBR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
		Meadows Blvd	NBL	B (10.7)	B (12.4)	B (10.2)	B (12.2)	B (10.3)	B (12.5)
			NBT	B (16.2)	B (16.4)	B (15.2)	B (16.0)	B (15.7)	B (16.5)
			NBR	B (13.1)	B (13.8)	B (12.5)	B (13.5)	B (12.5)	B (13.6)
		Meadows Blvd	SBL	B (11.8)	B (11.5)	B (11.2)	B (11.2)	B (11.5)	B (11.6)
			SBT	B (14.1)	B (14.8)	B (13.4)	B (14.5)	B (13.6)	B (15.3)
			SBR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
		Overall		C (23.4)	C (22.7)	C (22.6)	C (22.3)	C (23.4)	C (22.7)
2 Prairie Hawk Drive/New Hope Way	STOP	Prairie Hawk Dr	EBL	A [8.3]	A [8.1]	A [8.2]	A [8.1]	A [8.3]	A [8.1]
			EBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Prairie Hawk Dr	WBL	A [8.1]	A [8.3]	A [8.1]	A [8.3]	A [8.1]	A [8.4]
			WBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		New Hope Way	NBR	A [9.5]	A [9.7]	A [9.4]	A [9.7]	A [9.5]	A [9.8]
		Sol Danza Dr	SBR	A [0.0]	A [9.6]	A [9.6]	A [9.6]	A [9.7]	A [9.6]
3 Prairie Hawk Drive/Low Meadow Boulevard	STOP	Prairie Hawk Dr	EBL	A [8.2]	A [8.2]	A [8.1]	A [8.1]	A [8.2]	A [8.2]
			EBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			EBR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Prairie Hawk Dr	WBL	A [8.2]	A [8.4]	A [8.3]	A [8.3]	A [8.2]	A [8.4]
			WBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			NBLT	C [23.5]	C [23.4]	C [21.0]	C [20.9]	C [22.4]	C [22.3]
		Low Meadow Blvd	NBR	A [9.3]	A [9.7]	A [9.6]	A [9.6]	A [9.3]	A [9.7]
			SBL	C [23.0]	D [25.5]	C [22.1]	C [22.0]	C [21.7]	C [23.5]
		Limelight Ave	SBTR	C [18.8]	C [18.8]	C [17.6]	C [17.5]	C [18.3]	C [18.3]
4 Red Hawk Drive/Meadows Boulevard	STOP	Future St	EBL	C [22.7]	F [54.5]	C [19.8]	F [52.0]	C [22.5]	F [72.5]
			EBTR	A [8.7]	B [14.4]	A [8.7]	B [14.3]	A [8.7]	C [16.5]
		Red Hawk Dr	WBLT	D [31.4]	E [49.0]	D [26.9]	E [47.2]	D [31.6]	F [65.0]
			WBR	A [9.6]	A [9.4]	A [9.6]	A [9.4]	A [9.7]	A [9.5]
		Meadows Blvd	NBL	A [7.9]	A [8.9]	A [7.8]	A [8.9]	A [7.9]	A [9.2]
			NBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			NBR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Meadows Blvd	SBL	A [9.5]	A [8.9]	A [9.2]	A [8.9]	A [9.4]	A [9.1]
			SBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			SBR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
5 Red Hawk Drive/New Hope Way	STOP	Red Hawk Dr	EBL	A [7.5]	A [7.5]	A [7.4]	A [7.5]	A [7.4]	A [7.5]
			EBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Red Hawk Dr	WBL	A [7.5]	A [7.7]	A [7.5]	A [7.6]	A [7.5]	A [7.6]
			WBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		New Hope Wy	NBLTR	B [10.1]	B [11.2]	A [9.9]	B [11.0]	A [9.9]	B [11.0]
		New Hope Wy	SBLTR	A [9.8]	B [11.5]	A [9.7]	B [11.2]	A [9.7]	B [11.2]
6 S Site Access/New Hope Way	STOP	S Site Access New Hope Wy New Hope Wy	EBLR	A [8.3]	A [8.4]	A [8.3]	A [8.4]	A [8.3]	A [8.5]
			NBLT	A [7.2]	A [0.0]	A [7.2]	A [0.0]	A [7.2]	A [0.0]
			SBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
7 N Site Access/New Hope Way	STOP	N Site Access New Hope Wy New Hope Wy	EBLR	A [0.0]	A [9.1]	A [0.0]	A [9.1]	A [0.0]	A [9.2]
			NBLT	A [0.0]	A [7.3]	A [0.0]	A [7.3]	A [0.0]	A [7.4]
			SBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]

Notes : (1) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.
(2) Numbers in parenthesis () represent delay at signalized intersections in seconds per vehicle.

Table 4-2
Meadows Medical Plaza - Castle Rock, CO
Background Intersection Queueing Summary (1)

Intersection	Operating Condition	Street Name	Approach/ Movement	Available Storage	Existing 2024		Background 2026		Background 2046	
					AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1 Meadows Boulevard/Prairie Hawk Drive	SIGNAL	Meadows Blvd	EBL	350	88	91	90	90	89	89
			EBT	-	92	95	93	94	101	104
			EBR	200	0	15	0	14	0	14
		Prairie Hawk Dr	WBL	240	37	67	38	67	37	67
			WBT	-	87	69	87	69	95	75
			WBR	230	0	0	0	0	0	0
		Meadows Blvd	NBL	180	28	11	36	10	20	9
			NBT	-	263	233	251	227	269	261
			NBR	-	14	12	16	12	12	9
		Meadows Blvd	SBL	400	69	108	67	108	68	108
			SBT	-	129	285	125	284	140	327
			SBR	180	0	0	0	0	0	0
2 Prairie Hawk Drive/New Hope Way	STOP	Prairie Hawk Dr	EBL	200	2.5	2.5	2.5	2.5	2.5	2.5
			EBTR	-	0	0	0	0	0	0
		Prairie Hawk Dr	WBL	150	0	0	0	0	0	0
			WBTR	-	0	0	0	0	0	0
		New Hope Wy	NBR	-	0	0	0	0	0	0
		Sol Danza Dr	SBR	-	2.5	5	2.5	5	2.5	5
3 Prairie Hawk Drive/Low Meadow Boulevard	STOP	Prairie Hawk Dr	EBL	160	0	0	0	0	0	0
			EBT	-	0	0	0	0	0	0
			EBR	250	0	0	0	0	0	0
		Prairie Hawk Dr	WBL	160	2.5	2.5	2.5	2.5	2.5	2.5
			WBTR	-	0	0	0	0	0	0
		Low Meadow Blvd	NBLT	-	40	27.5	35	22.5	37.5	25
			NBR	135	2.5	5	2.5	5	2.5	5
			SBL	90	15	25	12.5	20	12.5	20
4 Red Hawk Drive/Meadows Boulevard	STOP	Future St	EBL	100	2.5	12.5	0	10	0	15
			EBTR	-	0	5	0	5	0	7.5
		Red Hawk Dr	WBLT	200	2.5	20	2.5	17.5	2.5	22.5
			WBR	-	12.5	10	10	10	10	10
			NBL	200	0	2.5	0	2.5	0	2.5
		Meadows Blvd	NBT	-	0	0	0	0	0	0
			NBR	200	0	0	0	0	0	0
			SBL	170	10	15	7.5	15	7.5	22.5
		Meadows Blvd	SBT	-	0	0	0	0	0	0
			SBR	145	0	0	0	0	0	0
5 Red Hawk Drive/New Hope Way	STOP	Red Hawk Dr	EBL	140	0	0	0	0	0	2.5
			EBTR	-	0	0	0	0	0	0
		Red Hawk Dr	WBL	75	0	0	0	0	0	0
			WBTR	-	0	0	0	0	0	0
		New Hope Wy	NBLTR	-	0	2.5	0	0	0	0
		New Hope Wy	SBLTR	-	0	2.5	0	0	0	2.5
6 S Site Access/New Hope Way	STOP	S Site Access	EBLR	-	0	0	0	0	0	0
		New Hope Wy	NBLT	-	0	0	0	0	0	0
		New Hope Wy	SBTR	-	0	0	0	0	0	0
7 N Site Access/New Hope Way	STOP	N Site Access	EBLR	-	0	0	0	0	0	0
		New Hope Wy	NBLT	-	0	2.5	2.5	2.5	0	2.5
		New Hope Wy	SBTR	-	0	0	0	0	0	0

Notes : (1) Queue length, in feet, is based on the 95th percentile queue as reported by Synchro, Version 12.

V. Site Analysis

Overview

The Applicant is proposing to develop the approximately 1.49 acre site with medical office building use. For purposes of this study, the proposed use was assumed to be complete and operational by study year 2026. The following use and development programs were analyzed:

Build Out – 2026

58,600 SF Medical-Dental Office Building

Proposed Site Access and Circulation

As shown on the Applicant's conceptual plan (Figure 1-2), access to the development is being proposed via two existing full movement accesses on New Hope Way.

Trip Generation

Overview

Trip generation estimates for the weekday AM and PM peak hours, as well as the weekday average daily traffic (ADT), were derived from the standard Institute of Transportation Engineers (ITE) Trip Generation Manual rates/equations, as published in the 12th edition. The trip generation analysis is presented in Table 5-1.

Site Trips

The vehicle trips that would be generated by the proposed development plan are summarized in Table 5-1. As shown in Table 5-1, the site would generate upon completion and full occupancy, 149 new weekday AM and 235 new weekday PM peak hour vehicle trips as well as 2,110 new weekday daily trips.

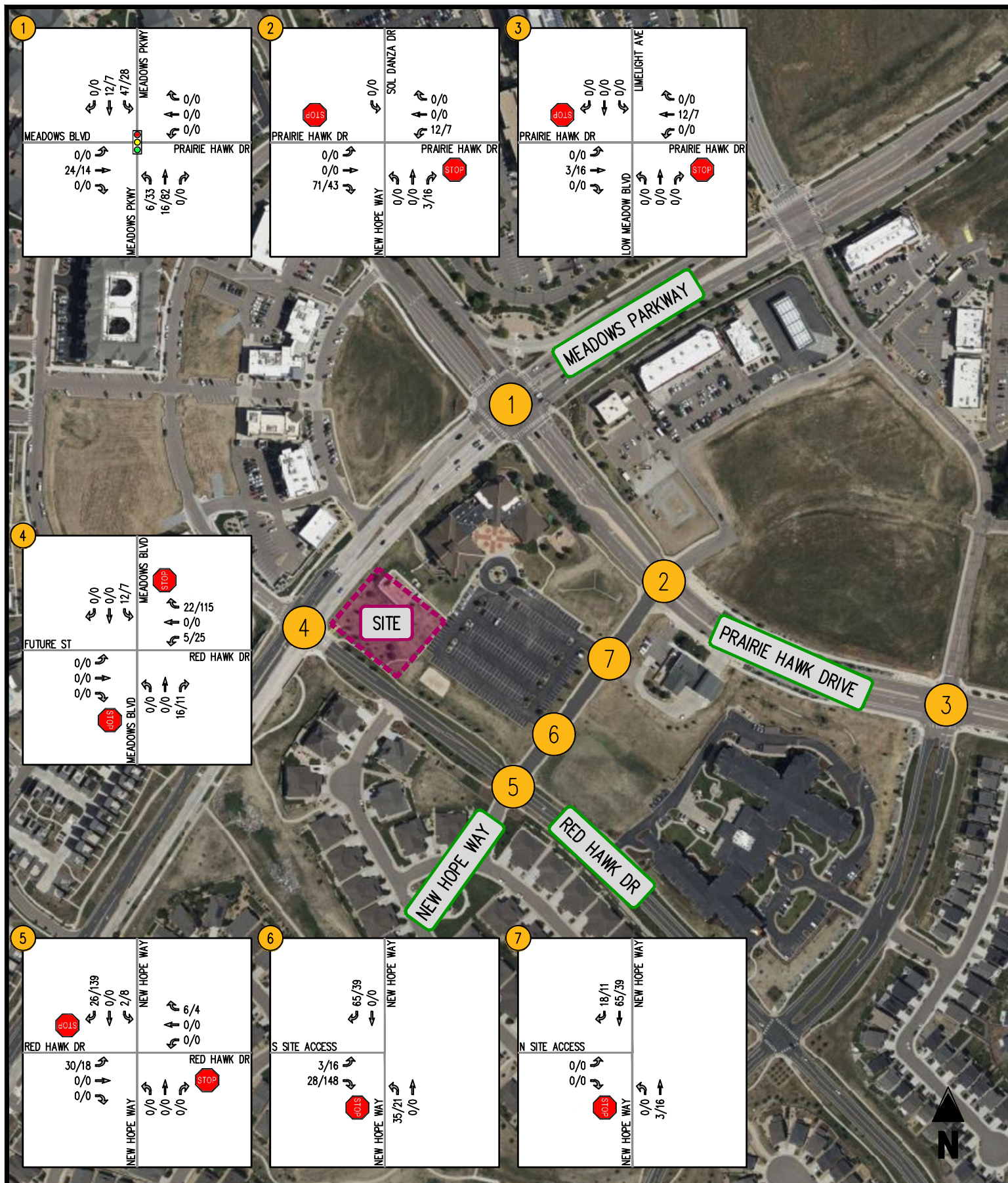
Site Trip Distributions

The distribution of the anticipated net site trips generated by the completion of the proposed development was based on an examination of existing traffic counts and local knowledge. Existing travel patterns indicate the following distribution is appropriate in the forecasting of future site traffic:

- To/from the north on Meadows Parkway: 50%
- To/from the south on Meadows Boulevard: 15%
- To/from the west on Meadows Boulevard: 20%
- To/from the east on Prairie Hawk Drive: 10%
- To/from the east on Red Hawk Drive: 5%

Site Trip Assignments

The assignment of the net new vehicle trips generated upon the future build-out of the development project was based on the above distribution. The site trip assignments are depicted on Figure 5-1.



**FIGURE 5-1
SITE TRIPS**

MEADOWS MEDICAL PLAZA
CASTLE ROCK, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

- ← MOVEMENT
- ◫ SIGNALIZED INTERSECTION
- STOP STOP SIGN
- YIELD YIELD SIGN



Table 5-1

Meadows Medical Plaza - Castle Rock, CO

Site Trip Generation

Land Use	Land Use Code	Amount	Units	AM Peak Hour			PM Peak Hour			Average Daily Trips
				In	Out	Total	In	Out	Total	
<u>Proposed</u> ⁽¹⁾										
Medical-Dental Office Building	720	58,600	SF	118	31	149	71	164	235	2,110

Note(s):

(1) Trip generation based on the Institute of Transportation Engineers' Trip Generation Manual, 11th Edition

VI. Analysis of Future Conditions with Site Development

Total Future Traffic Forecasts

The 2026 and 2046 total future traffic forecasts associated with the proposed development were developed by combining background future forecasts shown on Figure 4-3 (2026) and Figure 4-4 (2046) and the site trip assignments shown on Figure 5-1. The resulting total future traffic forecasts are provided on Figure 6-1 for build out (2026) conditions and Figure 6-2 for long range (2046) conditions.

Total Future Levels of Service with Proposed Development

Future levels of service with the proposed development plan were estimated at key study intersections based on the future traffic volumes shown on Figures 6-1 and 6-2, the proposed lane use on Figure 5-1, and the HCM 7th methodologies for signalized and unsignalized intersections. The results of these analyses are provided in Appendix G and presented in Table 6-1. Total future levels of service are also presented graphically on Figure 6-3 (2026) and 6-4 (2046).

As shown in Table 6-1, levels of service under future site development conditions would remain generally consistent with future background conditions (i.e., without site development). Overall delays would experience minor increase due to site trips.

Total Future Queuing

Total future queues were forecasted using Synchro software. The results of the queuing analysis are summarized in Table 6-2. As shown in Table 6-2, the forecasted queues for the study intersections would be contained within their effective storage, consistent with background conditions.

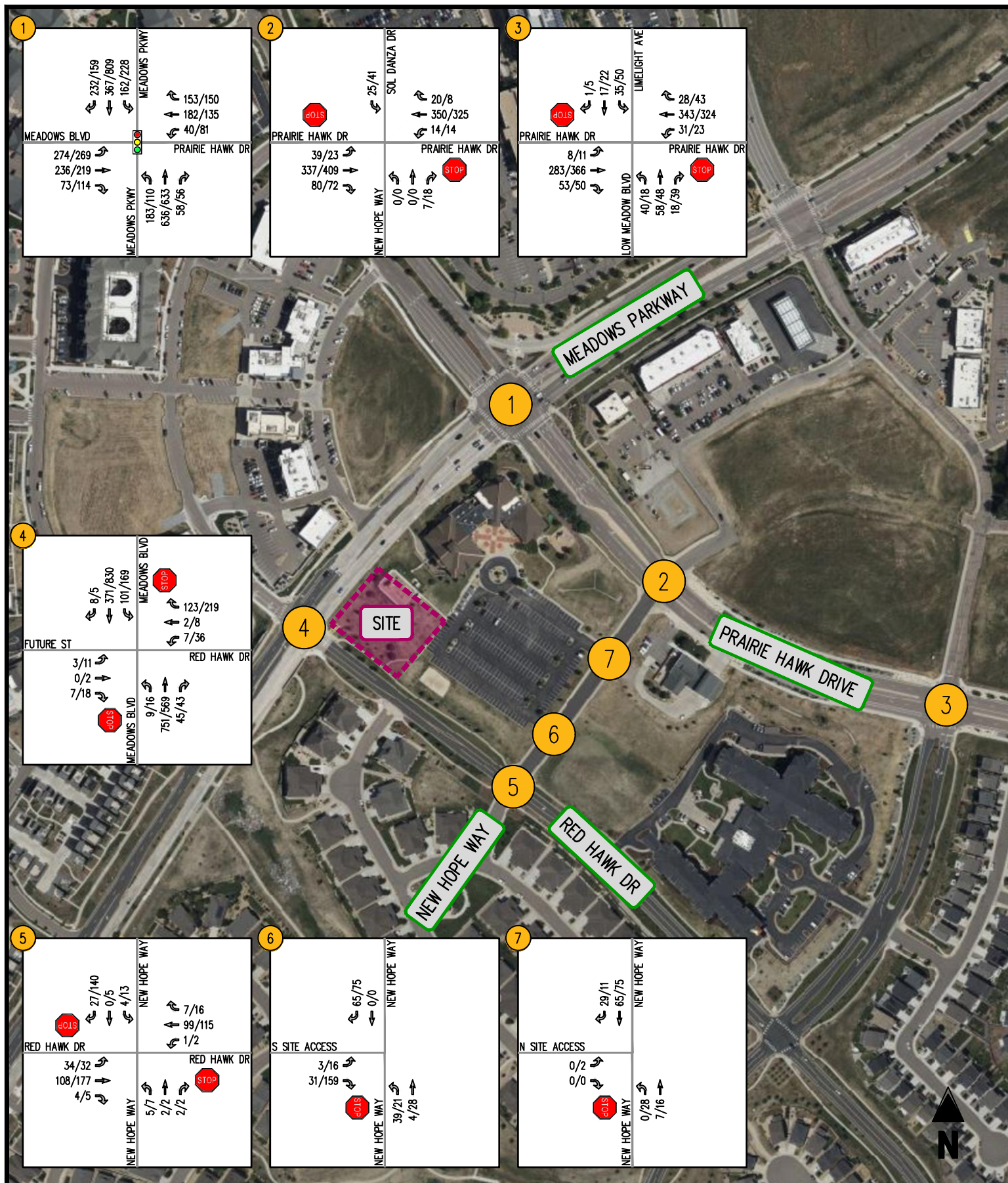


FIGURE 6-1
TOTAL FUTURE FORECASTS 2026

MEADOWS MEDICAL PLAZA
CASTLE ROCK, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

- ← MOVEMENT
- SIGNALIZED INTERSECTION
- STOP SIGN
- YIELD SIGN



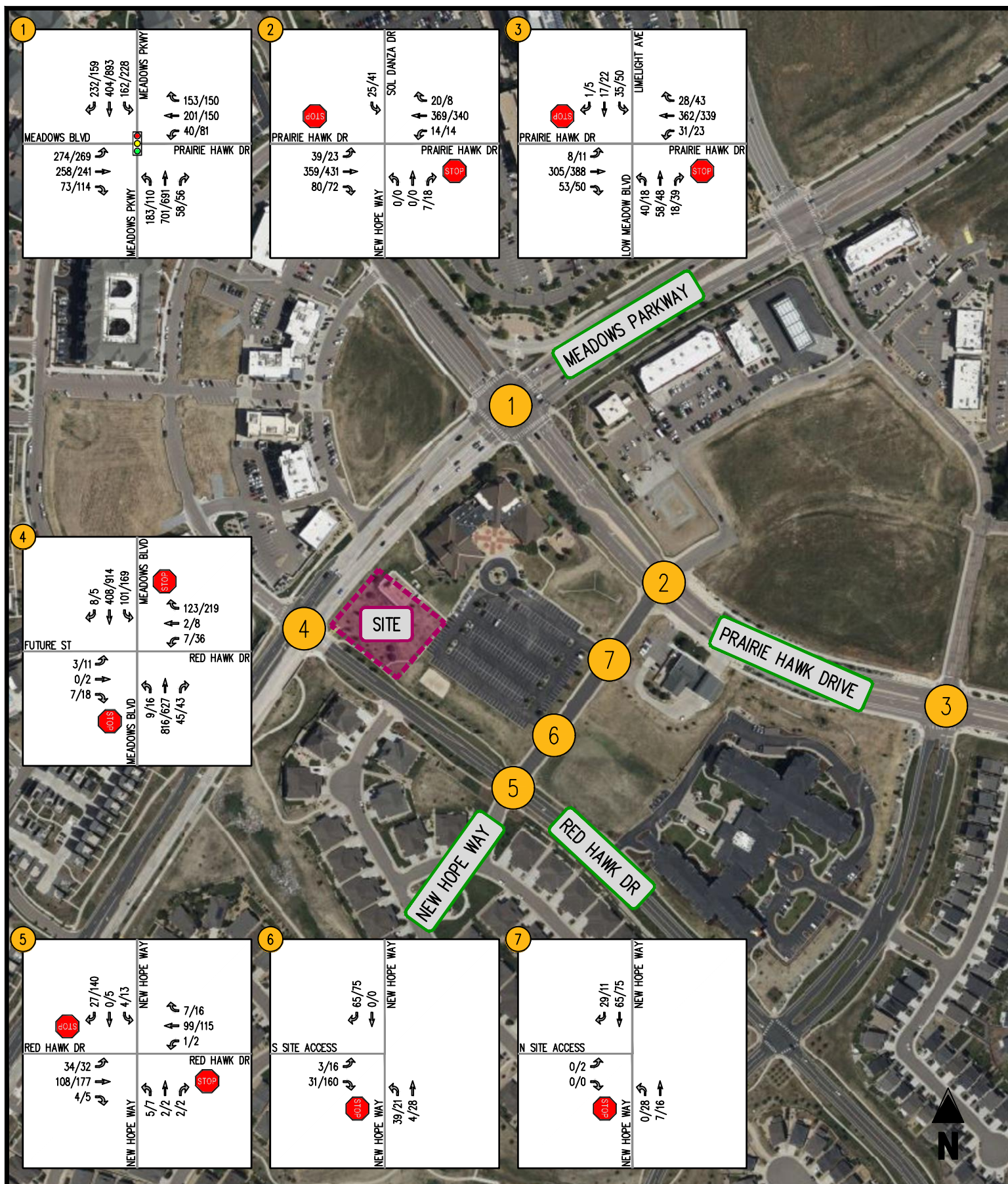


FIGURE 6-2
TOTAL FUTURE FORECASTS 2046

MEADOWS MEDICAL PLAZA
CASTLE ROCK, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT
SIGNALIZED INTERSECTION
STOP SIGN
YIELD SIGN



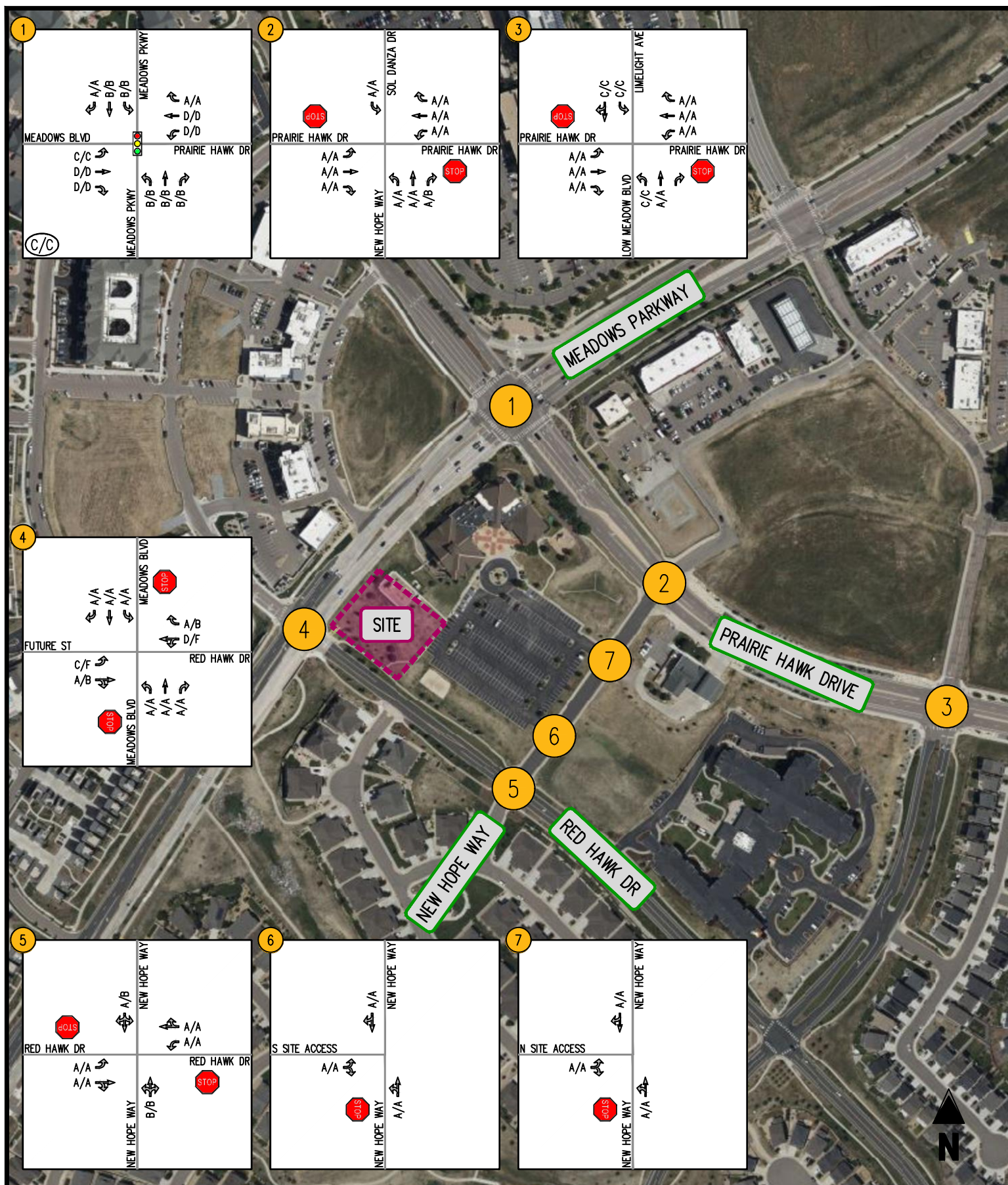


FIGURE 6-3
TOTAL FUTURE LOS 2026

MEADOWS MEDICAL PLAZA
CASTLE ROCK, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

- ← MOVEMENT
- ◫ SIGNALIZED INTERSECTION
- STOP STOP SIGN
- ▽ YIELD SIGN



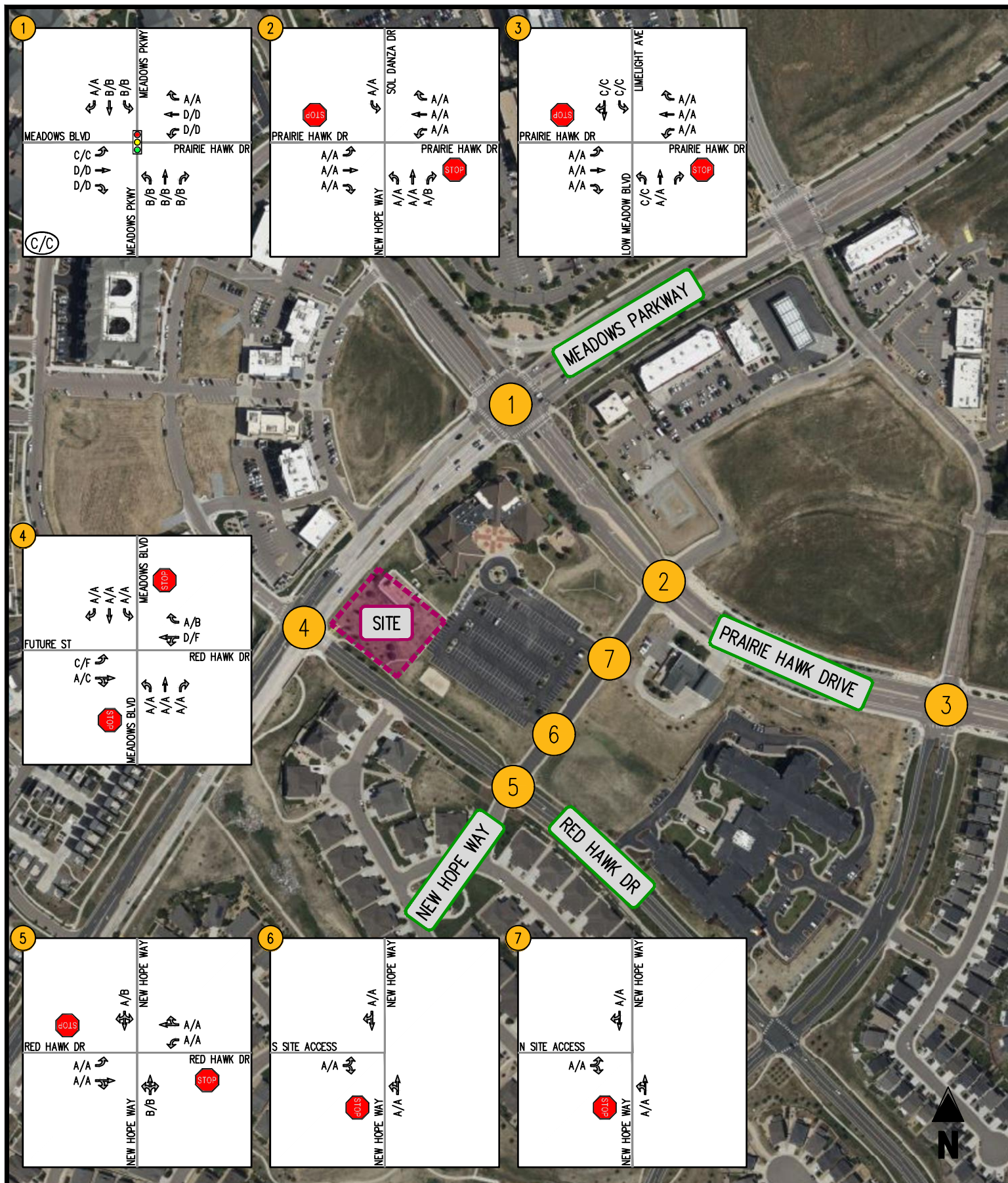


FIGURE 6-4
TOTAL FUTURE LOS 2046

MEADOWS MEDICAL PLAZA
CASTLE ROCK, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

- ← MOVEMENT
- ◫ SIGNALIZED INTERSECTION
- ◫ STOP SIGN
- ◫ YIELD SIGN



Table 6-1
Meadows Medical Plaza - Castle Rock, CO
Total Future Intersection Level of Service Summary (1) (2)

Intersection	Operating Condition	Street Name	Approach/ Movement	Background 2026		Background 2046		Total Future 2026		Total Future 2046	
				AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1 Meadows Boulevard/Prairie Hawk Drive	SIGNAL	Meadows Blvd	EBL	C (32.5)	C (34.2)	C (32.5)	C (34.1)	C (32.5)	C (34.1)	C (32.5)	C (34.1)
			EBT	D (36.4)	D (39.6)	D (36.8)	D (40.3)	D (37.0)	D (40.0)	D (37.6)	D (40.7)
			EBR	D (36.1)	D (44.8)	D (36.0)	D (44.5)	D (36.1)	D (44.6)	D (36.0)	D (44.3)
		Prairie Hawk Dr	WBL	D (36.0)	D (36.1)	D (35.9)	D (36.1)	D (36.0)	D (36.1)	D (35.9)	D (36.1)
			WBT	D (49.6)	D (42.9)	D (54.9)	D (43.9)	D (49.6)	D (42.8)	D (54.9)	D (43.8)
			WBR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
		Meadows Blvd	NBL	B (10.2)	B (12.2)	B (10.3)	B (12.5)	B (10.9)	B (12.5)	B (11.0)	B (12.8)
			NBT	B (15.2)	B (16.0)	B (15.7)	B (16.5)	B (16.4)	B (17.4)	B (17.1)	B (17.9)
			NBR	B (12.5)	B (13.5)	B (12.5)	B (13.6)	B (13.4)	B (14.1)	B (13.4)	B (14.2)
		Meadows Blvd	SBL	B (11.2)	B (11.2)	B (11.5)	B (11.6)	B (11.9)	B (12.2)	B (12.3)	B (12.7)
			SBT	B (13.4)	B (14.5)	B (13.6)	B (15.3)	B (13.6)	B (15.2)	B (13.8)	B (16.0)
			SBR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
		Overall		C (22.6)	C (22.3)	C (23.4)	C (22.7)	C (23.0)	C (22.6)	C (23.8)	C (23.0)
2 Prairie Hawk Drive/New Hope Way	STOP	Prairie Hawk Dr	EBL	A [8.2]	A [8.1]	A [8.3]	A [8.1]	A [8.2]	A [8.1]	A [8.3]	A [8.1]
			EBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Prairie Hawk Dr	WBL	A [8.1]	A [8.3]	A [8.1]	A [8.4]	A [8.3]	A [8.5]	A [8.4]	A [8.6]
			WBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		New Hope Way	NBR	A [9.4]	A [9.7]	A [9.5]	A [9.8]	A [9.7]	B [10.0]	A [9.8]	B [10.1]
		Sol Danza Dr	SBR	A [9.6]	A [9.6]	A [9.7]	A [9.6]	A [9.6]	A [9.6]	A [9.7]	A [9.6]
3 Prairie Hawk Drive/Low Meadow Boulevard	STOP	Prairie Hawk Dr	EBL	A [8.1]	A [8.1]	A [8.2]	A [8.2]	A [8.1]	A [9.7]	A [8.2]	A [8.2]
			EBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			EBR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Prairie Hawk Dr	WBL	A [8.3]	A [8.3]	A [8.2]	A [8.4]	A [8.1]	A [8.3]	A [8.2]	A [8.4]
			WBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Low Meadow Blvd	NBLT	C [21.0]	C [20.9]	C [22.4]	C [22.3]	C [21.4]	C [21.8]	C [22.9]	C [23.1]
			NBR	A [9.6]	A [9.6]	A [9.3]	A [9.7]	A [9.3]	A [9.7]	A [9.3]	A [9.8]
			SBL	C [22.1]	C [22.0]	C [21.7]	C [23.5]	C [20.9]	C [22.9]	C [22.3]	C [24.4]
		Limelight Ave	SBTR	C [17.6]	C [17.5]	C [18.3]	C [18.3]	C [17.8]	C [18.1]	C [18.6]	C [18.8]
4 Red Hawk Drive/Meadows Boulevard	STOP	Future St	EBL	C [19.8]	F [52.0]	C [22.5]	F [72.5]	C [21.4]	F [67.7]	C [24.4]	F [93.8]
			EBTR	A [8.7]	B [14.3]	A [8.7]	C [16.5]	A [8.7]	B [14.8]	A [8.7]	C [17.0]
		Red Hawk Dr	WBLT	D [26.9]	E [47.2]	D [31.6]	F [65.0]	D [28.0]	F [55.2]	D [33.2]	F [78.1]
			WBR	A [9.6]	A [9.4]	A [9.7]	A [9.5]	A [9.7]	B [10.1]	A [9.9]	B [10.3]
		Meadows Blvd	NBL	A [7.8]	A [8.9]	A [7.9]	A [9.2]	A [7.8]	A [8.9]	A [7.9]	A [9.2]
			NBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			NBR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Meadows Blvd	SBL	A [9.2]	A [8.9]	A [9.4]	A [9.1]	A [9.3]	A [9.0]	A [9.5]	A [9.1]
			SBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			SBR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
5 Red Hawk Drive/New Hope Way	STOP	Red Hawk Dr	EBL	A [7.4]	A [7.5]	A [7.4]	A [7.5]	A [7.5]	A [7.6]	A [7.5]	A [7.6]
			EBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Red Hawk Dr	WBL	A [7.5]	A [7.6]	A [7.5]	A [7.6]	A [7.5]	A [7.6]	A [7.5]	A [7.6]
			WBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		New Hope Wy	NBLTR	A [9.9]	B [11.0]	A [9.9]	B [11.0]	B [10.6]	B [12.3]	B [10.6]	B [12.3]
6 S Site Access/New Hope Way	STOP	S Site Access New Hope Wy New Hope Wy	EBLR	A [8.3]	A [8.4]	A [8.3]	A [8.5]	A [8.7]	A [9.4]	A [8.7]	A [9.4]
			NBLT	A [7.2]	A [0.0]	A [7.2]	A [0.0]	A [7.4]	A [7.4]	A [7.4]	A [7.4]
			SBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
7 N Site Access/New Hope Way	STOP	N Site Access New Hope Wy New Hope Wy	EBLR	A [0.0]	A [9.1]	A [0.0]	A [9.2]	A [0.0]	A [9.5]	A [0.0]	A [9.5]
			NBLT	A [0.0]	A [7.3]	A [0.0]	A [7.4]	A [0.0]	A [7.4]	A [0.0]	A [7.4]
			SBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]

Notes : (1) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.
(2) Numbers in parenthesis () represent delay at signalized intersections in seconds per vehicle.

Table 6-2
Meadows Medical Plaza - Castle Rock, CO
Total Future Intersection Queueing Summary (1)

Intersection	Operating Condition	Street Name	Approach/ Movement	Available Storage	Background 2026		Background 2046		Total Future 2026		Total Future 2046	
					AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1 Meadows Boulevard/Prairie Hawk Drive	SIGNAL	Meadows Blvd	EBL	350	90	90	89	89	90	89	89	89
			EBT	-	93	94	101	104	103	100	110	109
			EBR	200	0	14	0	14	0	14	0	14
			WBL	240	38	67	37	67	38	67	37	67
		Prairie Hawk Dr	WBT	-	87	69	95	75	87	69	95	75
			WBR	230	0	0	0	0	0	0	0	0
			NBL	180	36	10	20	9	18	18	22	16
			NBT	-	251	227	269	261	248	268	280	296
		Meadows Blvd	NBR	-	16	12	12	9	11	8	11	6
			SBL	400	67	108	68	108	91	124	92	124
			SBT	-	125	284	140	327	130	295	144	335
			SBR	180	0	0	0	0	0	0	0	0
2 Prairie Hawk Drive/New Hope Way	STOP	Prairie Hawk Dr	EBL	200	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
			EBTR	-	0	0	0	0	0	0	0	0
		Prairie Hawk Dr	WBL	150	0	0	0	0	0	0	0	0
			WBTR	-	0	0	0	0	0	0	0	0
		New Hope Wy	NBR	-	0	0	0	0	0	2.5	0	2.5
		Sol Danza Dr	SBR	-	2.5	5	2.5	5	2.5	2.5	2.5	5
3 Prairie Hawk Drive/Low Meadow Boulevard	STOP	Prairie Hawk Dr	EBL	160	0	0	0	0	0	0	0	0
			EBT	-	0	0	0	0	0	0	0	0
			EBR	250	0	0	0	0	0	0	0	0
			WBL	160	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
		Low Meadow Blvd	WBTR	-	0	0	0	0	0	0	0	0
			NBLT	-	35	22.5	37.5	25	35	25	37.5	25
			NBR	135	2.5	5	2.5	5	2.5	5	2.5	5
			SBL	90	12.5	20	12.5	20	12.5	20	12.5	20
4 Red Hawk Drive/Meadows Boulevard	STOP	Future St	EBL	100	0	10	0	15	0	15	2.5	20
			EBTR	-	0	5	0	7.5	0	5	0	5
			WBLT	200	2.5	17.5	2.5	22.5	5	42.5	5	55
			WBR	-	10	10	10	12.5	25	12.5	25	25
		Meadows Blvd	NBL	200	0	2.5	0	2.5	0	2.5	0	2.5
			NBT	-	0	0	0	0	0	0	0	0
			NBR	200	0	0	0	0	0	0	0	0
			SBL	170	7.5	15	7.5	22.5	10	15	10	15
		Meadows Blvd	SBT	-	0	0	0	0	0	0	0	0
			SBR	145	0	0	0	0	0	0	0	0
5 Red Hawk Drive/New Hope Way	STOP	Red Hawk Dr	EBL	140	0	0	0	2.5	2.5	2.5	2.5	2.5
			EBTR	-	0	0	0	0	0	0	0	0
		Red Hawk Dr	WBL	75	0	0	0	0	0	0	0	0
			WBTR	-	0	0	0	0	0	0	0	0
		New Hope Wy	NBLTR	-	0	0	0	0	0	2.5	0	2.5
		New Hope Wy	SBLTR	-	0	0	0	2.5	2.5	20	2.5	20
6 S Site Access/New Hope Way	STOP	S Site Access	EBLR	-	0	0	0	0	2.5	17.5	2.5	17.5
		New Hope Wy	NBLT	-	0	0	0	0	2.5	0	2.5	0
		New Hope Wy	SBTR	-	0	0	0	0	0	0	0	0
7 N Site Access/New Hope Way	STOP	N Site Access	EBLR	-	0	0	0	0	0	0	0	0
		New Hope Wy	NBLT	-	2.5	2.5	0	2.5	0	2.5	0	2.5
		New Hope Wy	SBTR	-	0	0	0	0	0	0	0	0

Notes : (1) Queue length, in feet, is based on the 95th percentile queue as reported by Synchro, Version 12.

VII. Signal Warrant Analysis

During the scope determination for the project a signal warrant analysis was requested. Signal Warrant Analysis for the following intersection was conducted for existing 2024 conditions:

- Meadows Boulevard & Red Hawk Drive

The Manual on Uniform Traffic Control Devices 2009 Edition (MUTCD) provides nine (9) distinct warrants for determining the appropriateness of a traffic signal as an operational improvement for an intersection.

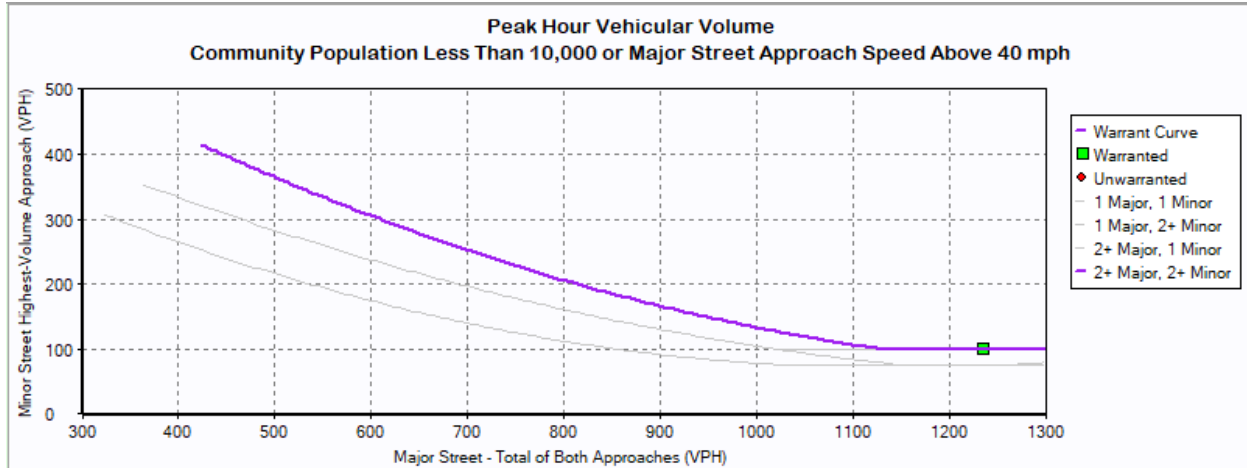
- Warrant 1 – Eight-Hour Vehicular Volume
 - Condition A – Minimum Vehicular Volume
 - Condition B – Interruption of Continuous Traffic
 - Condition C – Combination of Warrants
- Warrant 2 – Four-Hour Vehicular Volume
- Warrant 3 – Peak Hour
 - Condition A – Peak Hour Delay
 - Condition B – Peak Hour Volume
- Warrant 4 – Pedestrian Volume
 - Condition A – Peak Hour Volume
 - Condition B – Four-Hour Volume
- Warrant 5 – School Crossing
- Warrant 6 – Coordinated Signal System
- Warrant 7 – Crash Experience
- Warrant 8 – Roadway Network
- Warrant 9 – Intersection Near a Grade Crossing

Due to the availability of the data from this traffic study, Warrant 3 was utilized to provide signal warrant guidance for the Meadows Boulevard & Red Hawk Drive intersection. The peak hour warrant was conducted based on the existing 2024 volumes provided in Figure 3-1 and the LOS analysis provided on Table 3-1. The following scenarios were evaluated for Warrant 3 – Peak Hour warrants:

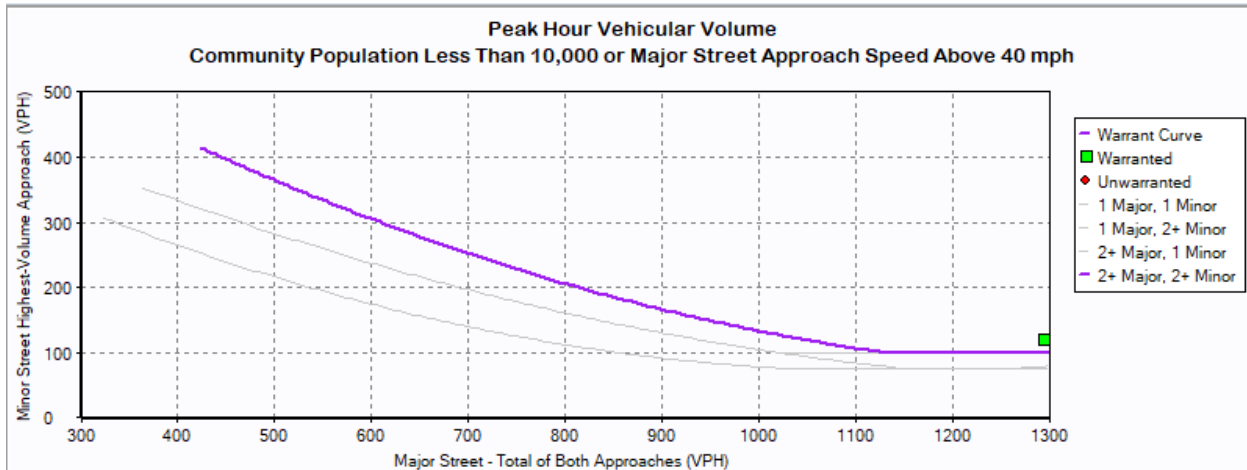
- Meadows Boulevard & Red Hawk Drive – **WARRANTED**

Peak hour signal warrants were conducted based on the AM/PM volumes contained herein. Further review of the intersection analysis reports shows that delays are primarily related to left turn movements at the side streets which are minor in volume. A review of volume to capacity (v/c) ratios show that all movements have less than 1.0 v/c. This would suggest that additional capacity exists for these movements although during peak hours some delay would occur.

Meadows Boulevard & Red Hawk Drive Existing 2024 AM Peak Hour Warrant



Meadows Boulevard & Red Hawk Drive Existing 2024 PM Peak Hour Warrant



VIII. Conclusions and Recommendations

Conclusions

Based on the results of this traffic impact study, the following may be concluded:

- Under existing traffic conditions, the signalized intersections within the study area currently operate at levels of service (LOS) "C" during the weekday AM and PM peak hours.
- Under existing traffic conditions, the movements for unsignalized intersections within the study area currently operate at overall acceptable levels of service (LOS) "D" or better during the weekday AM and PM peak hours with the exception of the eastbound and westbound left turn movements at the Red Hawk Drive/Meadows Boulevard intersection which operate at LOS "F" and LOS "E" respectively in the weekday PM peak hour.
- Under existing traffic conditions, the queues for the intersections within the study area remain within their respective storage lengths.
- Under background future traffic conditions, without the development of the subject site, study intersections would continue operate generally consistent with existing conditions.
- The proposed site development would generate, upon completion and full occupancy, 149 new weekday AM and 235 new weekday PM peak hour vehicle trips as well as 2,110 new weekday daily trips.
- Under total future traffic conditions with development of the site, study intersections would continue operate to generally consistent with background conditions.
- Under total future traffic conditions with development of the site, all forecasted queues at the study intersections would be contained within their effective storage.

Recommendations

- The Applicant should provide access consistent with the site plan contained herein.

APPENDIX A – Full Sized Conceptual Plan



YOW ARCHITECTS PC

ARCHITECTURE & PLANNING

1115 S. Weber Colorado Springs, Colorado 475-8133

Structural:
Electrical:
Mechanical:
Plumbing:

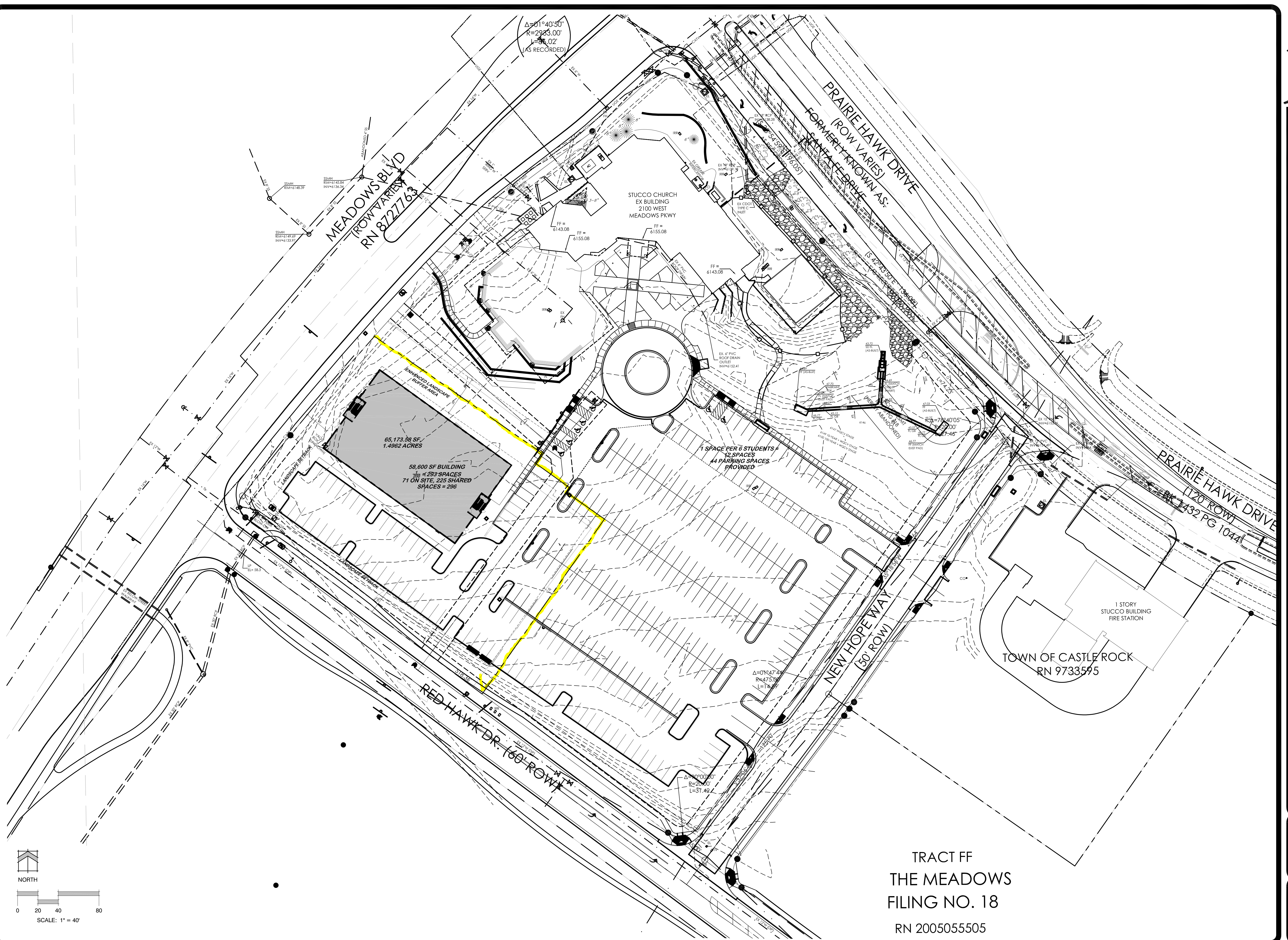
CASTLE ROCK MOB

Red Hawk
Castle Rock, Colorado 80921

Job No. 20.028
Directory Planning
File development plan
Drawn By DBH
Date 2.27.2024
Revised

DRAWING NO.

1 of 1
Development Plan



TRACT FF
THE MEADOWS
FILING NO. 18
RN 2005055505

APPENDIX B – Base Assumptions Form

TRAFFIC IMPACT STUDY BASE ASSUMPTIONS WORKSHEET

Project Name	New Hope Medical Office Building (MOB)		
Project Location	Castle Rock, CO		
Project Size	1.49 Acres		
Study Area Boundaries	North: Prairie Hawk Drive	South: Red Hawk Drive	
	East: Low Meadow Blvd	West: Meadows Parkway	
Study Years	Existing: 2024, Build-out: 2026	Long Range: 2046	
Future Traffic Growth Rate	0.5%		
Study Intersections (see attached)	1. Proposed Site Accesses	2. Meadows Pkwy/Prairie Hawk Dr	
	3. Meadows Pkwy/Red Hawk Dr	4. Prairie Hawk Dr/New Hope Wy	
	5. Red Hawk Dr/New Hope Wy	6. Prairie Hawk Dr/Low Meadow	
	7.	8.	
Time Period for Study	AM: ☒	PM: ☒	Sat. Noon: ☐
Trip Generation Rates (Latest ITE <i>Trip Generation Manual</i> rates/equations will be utilized unless otherwise recommended or approved.) (see attached)			
Trip Adjustment Factors (Subject to approval.)	Pass by: N/A		Captive Market: N/A
Overall Trip Distribution	North: (see attached)	South: (see attached)	East: (see attached) West: (see attached)
Mode Split Assumptions	N/A		
Committed Roadway Improvements	N/A		
Other Traffic Studies	N/A		
Areas Requiring Special Study (i.e. Signal progression, passenger car equivalents, accident analyses, etc.)	Signal Warrant analysis: Meadows/Red Hawk		
DATE: 7-23-2024 TRANSPORTATION ENGINEER: Brian Horan (Galloway)			





Table 1

New Hope MOB - Castle Rock, CO

Site Trip Generation

Land Use	Land Use Code	Amount	Units	AM Peak Hour			PM Peak Hour			Average Daily Trips
				In	Out	Total	In	Out	Total	
<i>Proposed</i> ⁽¹⁾										
Medical-Dental Office Building	720	58,600	SF	118	31	149	71	164	235	2,110

Note(s):

(1) Trip generation based on the Institute of Transportation Engineers' Trip Generation Manual, 11th Edition



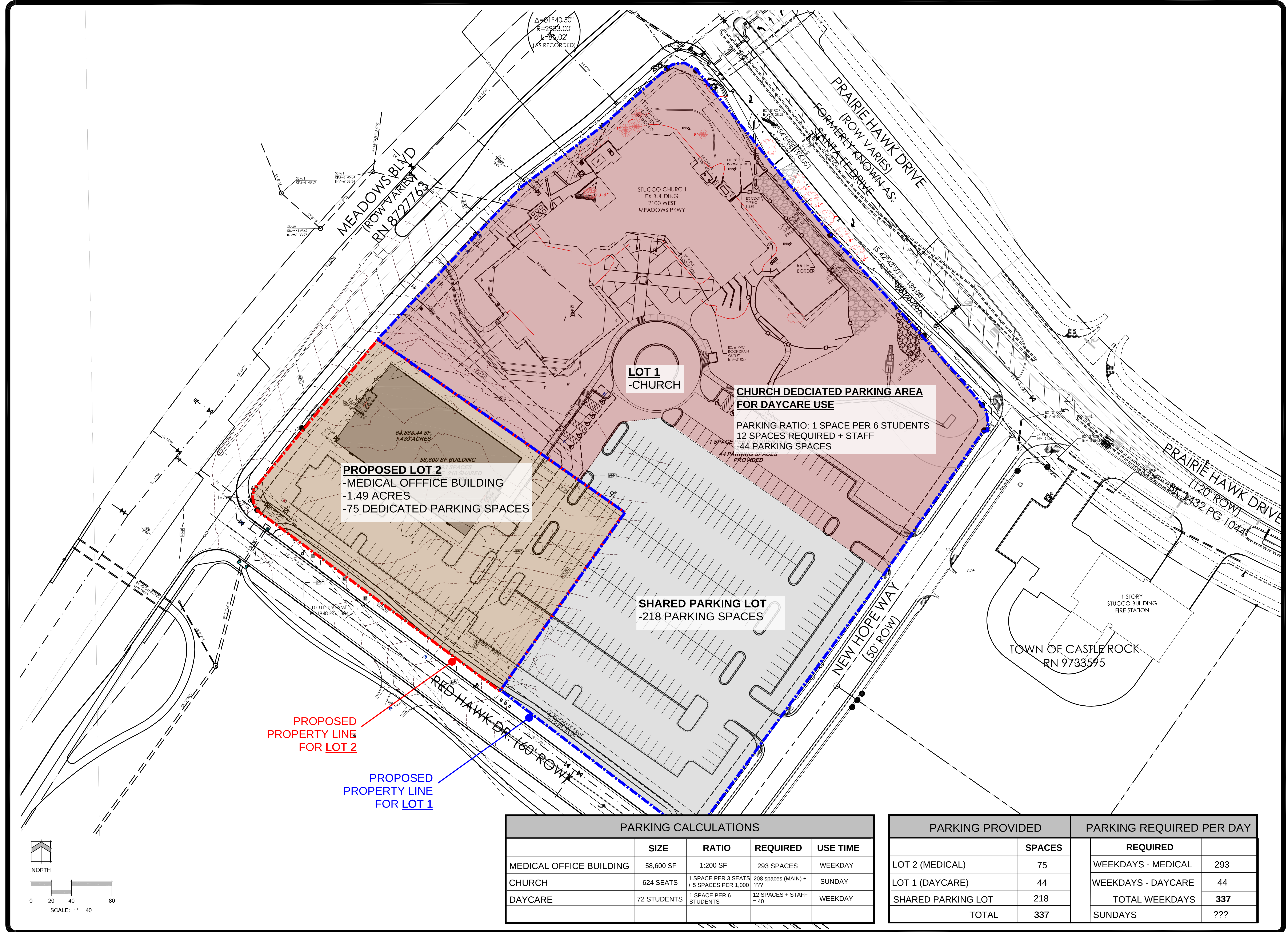
YOW ARCHITECTS PC
ARCHITECTURE & PLANNING
115 S. Weber
Colorado Springs, Colorado 475-8133

Structural:
Electrical:
Mechanical:
Plumbing:

CASTLE ROCK MOB
Red Hawk
Castle Rock, Colorado 80921

Job No: 20208
Directory: Planning
File: development plan
Drawn By: DBN
Date: 2.27.2024
Revised:

DRAWING NO.
1 of 1
Development Plan



PROPOSED LOT 2
-MEDICAL OFFICE BUILDING
-1.49 ACRES
-75 DEDICATED PARKING SPACES

LOT 1
-CHURCH

**CHURCH DEDICATED PARKING AREA
FOR DAYCARE USE**

PARKING RATIO: 1 SPACE PER 6 STUDENTS
12 SPACES REQUIRED + STAFF
-44 PARKING SPACES

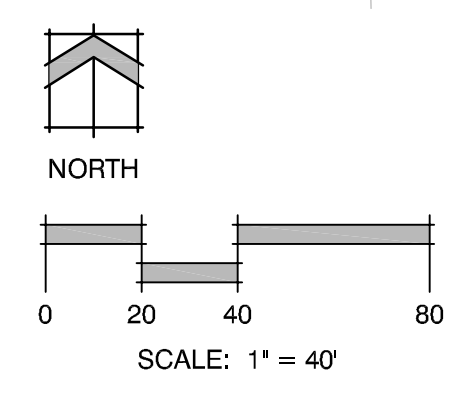
SHARED PARKING LOT
-218 PARKING SPACES

PROPOSED
PROPERTY LINE
FOR LOT 2

PROPOSED
PROPERTY LINE
FOR LOT 1

PARKING CALCULATIONS				
	SIZE	RATIO	REQUIRED	USE TIME
MEDICAL OFFICE BUILDING	58,600 SF	1:200 SF	293 SPACES	WEEKDAY
CHURCH	624 SEATS	1 SPACE PER 3 SEATS + 5 SPACES PER 1,000	208 spaces (MAIN) + ???	SUNDAY
DAYCARE	72 STUDENTS	1 SPACE PER 6 STUDENTS	12 SPACES + STAFF = 40	WEEKDAY

PARKING PROVIDED		PARKING REQUIRED PER DAY	
	SPACES	REQUIRED	
LOT 2 (MEDICAL)	75	WEEKDAYS - MEDICAL	293
LOT 1 (DAYCARE)	44	WEEKDAYS - DAYCARE	44
SHARED PARKING LOT	218	TOTAL WEEKDAYS	337
TOTAL	337	SUNDAYS	???



APPENDIX C – LOS Descriptions

Level of Service for Signalized Intersections

Level of service for signalized intersections is defined in terms of delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. Specifically, level-of-service (LOS) criteria are stated in terms of the average stopped delay per vehicle for a 15-min analysis period. The criteria are given in Exhibit 16-2. Delay may be measured in the field or estimated using procedures presented later in this chapter. Delay is a complex measure and is dependent on a number of variables, including the quality of progression, the cycle length, the green ratio, and the v/c ratio for the lane group in question.

LOS A describes operations with very low delay, up to 10 sec per vehicle. This level of service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.

LOS B describes operations with delay greater than 10 and up to 20 sec per vehicle. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.

Exhibit 16-2. Level-of-Service Criteria for Signalized Intersections

LEVEL OF SERVICE	STOPPED DELAY PER VEHICLE (SEC)
A	≤ 10.0
B	> 10.0 and ≤ 20.0
C	> 20.0 and ≤ 35.0
D	> 35.0 and ≤ 55.0
E	> 55.0 and ≤ 80.0
F	> 80.0

LOS C describes operations with delay greater than 20 and up to 35 sec per vehicle. These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.

LOS D describes operations with delay greater than 35 and up to 55 sec per vehicle. At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

LOS E describes operations with delay greater than 55 and up to 80 sec per vehicle. This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.

LOS F describes operations with delay in excess of 80 sec per vehicle. This level, considered to be unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Source: Highway Capacity Manual, 2000. Transportation Research Board, National Research Council

Level of Service Criteria for Stop Sign Controlled Intersections

The level of service criteria are given in Table 17-2. As used here, control delay is defined as the total elapsed time from the time a vehicle stops at the end of the queue until the vehicle departs from the stop line; this time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position, including deceleration of vehicles from free-flow speed to the speed of vehicles in queue.

The average total delay for any particular minor movement is a function of the service rate or capacity of the approach and the degree of saturation. . . .

Table 17-2. Level of Service Criteria for TWSC Intersections

LEVEL OF SERVICE	AVERAGE CONTROL DELAY (sec/veh)
A	≤ 10
B	$> 10 \text{ and } \leq 15$
C	$> 15 \text{ and } \leq 25$
D	$> 25 \text{ and } \leq 35$
E	$> 35 \text{ and } \leq 50$
F	> 50

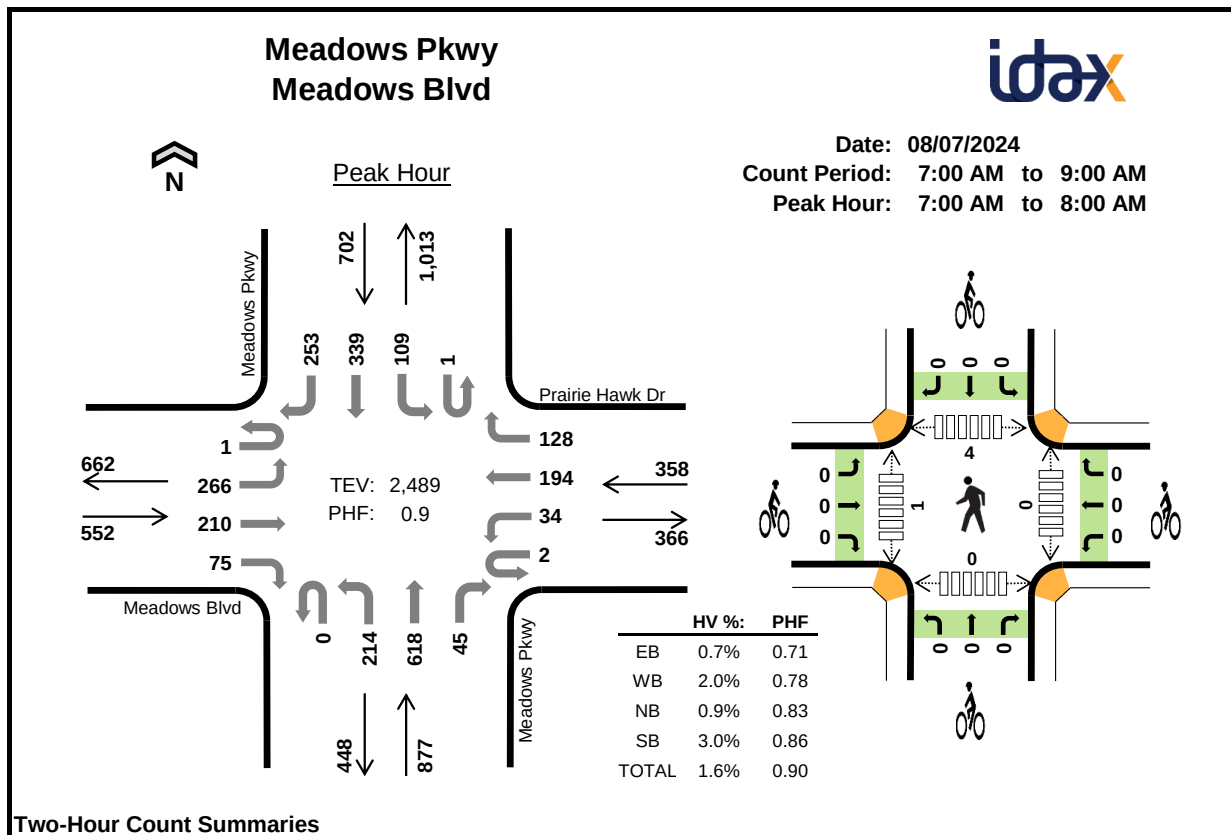
Average total delay less than 10 sec/veh is defined as Level of Service (LOS) A. Follow-up times of less than 5 sec have been measured when there is no conflicting traffic for a minor street movement, so control delays of less than 10 sec/veh are appropriate for low flow conditions. To remain consistent with the AWSC intersection analysis procedure described later in this chapter, a total delay of 50 sec/veh is assumed as the break point between LOS E and F.

The proposed level of service criteria for TWSC intersections are somewhat different from the criteria used in Chapter 16 for signalized intersections. The primary reason for this difference is that drivers expect different levels of performance from different kinds of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an unsignalized intersection. Additionally, several driver behavior considerations combine to make delays at signalized intersections less onerous than at unsignalized intersections. For example, drivers at signalized intersections are able to relax during the red interval, where drivers on the minor approaches to unsignalized intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at unsignalized than signalized intersections. For these reasons, it is considered that the total delay threshold for any given level of service is less for an unsignalized intersection than for a signalized intersection. . . .

LOS F exists when there are insufficient gaps of suitable size to allow a side street demand to cross safely through a major street traffic stream. This level of service is generally evident from extremely long total delays experienced by side street traffic and by queueing on the minor approaches. The method, however, is based on a constant critical gap size - that is, the critical gap remains constant, no matter how long the side street motorist waits. LOS F may also appear in the form of side street vehicles' selecting smaller-than-usual gaps. In such cases, safety may be a problem and some disruption to the major traffic stream may result. It is important to note that LOS F may not always result in long queues but may result in adjustments to normal gap acceptance behavior. The latter is more difficult to observe on the field than queueing, which is more obvious.

Source: Highway Capacity Manual, 2000. Transportation Research Board, National Research Council

APPENDIX D – Traffic Counts

**Two-Hour Count Summaries**

Interval Start		Meadows Blvd				Prairie Hawk Dr				Meadows Pkwy				Meadows Pkwy				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	51	28	8	1	5	54	30	0	52	160	5	0	22	70	64	550	0
7:15 AM		1	65	51	27	0	5	78	32	0	97	155	13	0	32	63	73	692	0
7:30 AM		0	82	83	29	0	10	35	29	0	50	135	14	0	29	86	59	641	0
7:45 AM		0	68	48	11	1	14	27	37	0	15	168	13	1	26	120	57	606	2,489
8:00 AM		0	58	28	6	0	10	40	55	0	15	156	18	0	27	82	43	538	2,477
8:15 AM		0	56	35	14	0	15	22	26	0	12	164	15	1	35	87	31	513	2,298
8:30 AM		0	64	35	9	0	9	19	37	0	13	146	13	2	23	104	41	515	2,172
8:45 AM		0	60	33	5	3	14	22	26	0	13	165	17	0	46	126	51	581	2,147
Count Total		1	504	341	109	5	82	297	272	0	267	1,249	108	4	240	738	419	4,636	0
Peak Hour	All	1	266	210	75	2	34	194	128	0	214	618	45	1	109	339	253	2,489	0
	HV	0	0	4	0	0	2	1	4	0	6	1	1	0	6	13	2	40	0
	HV%	0%	0%	2%	0%	0%	6%	1%	3%	-	3%	0%	2%	0%	6%	4%	1%	2%	0

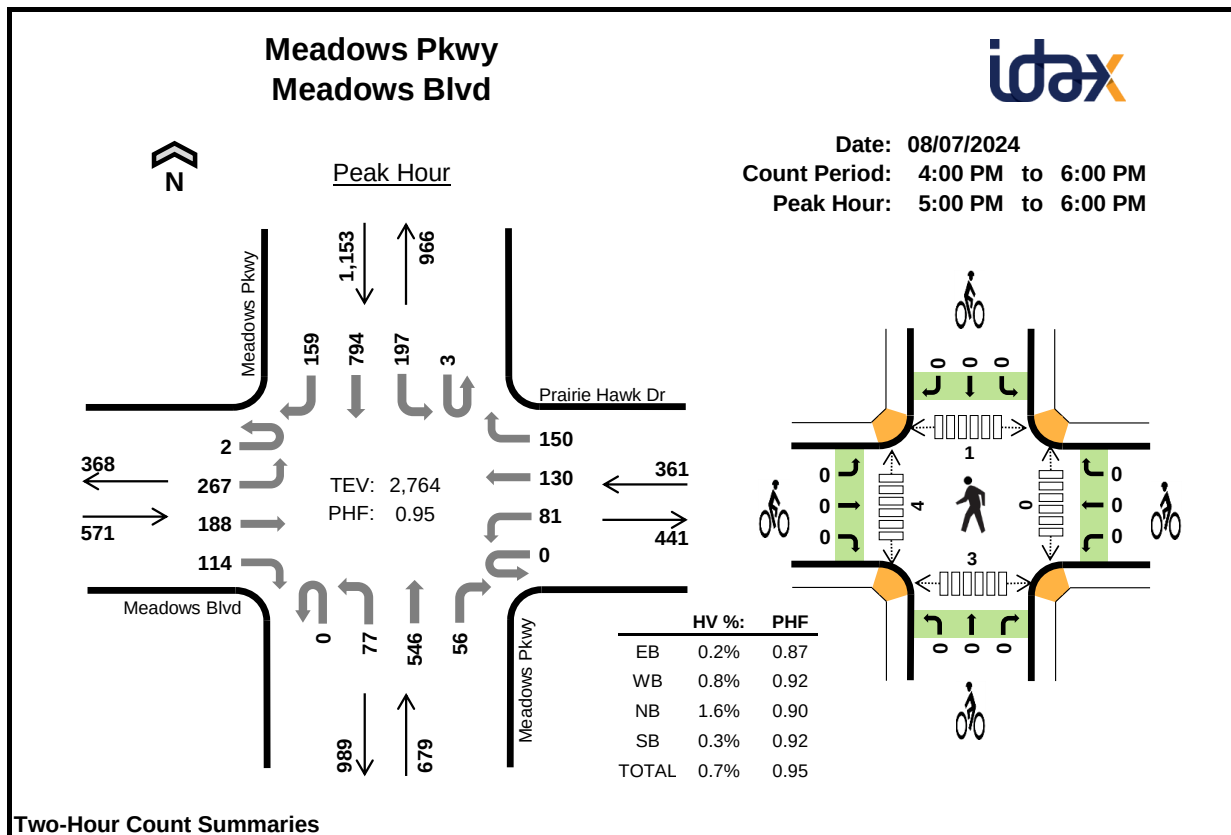
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	1	4	8	13	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	0	3	3	7	0	0	0	0	0	0	0	4	0	4
7:30 AM	0	1	1	2	4	0	0	0	0	0	0	1	0	0	1
7:45 AM	3	5	0	8	16	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	6	1	7	14	0	0	0	0	0	0	0	0	0	0
8:15 AM	4	2	4	4	14	0	0	0	0	0	0	1	0	0	1
8:30 AM	2	2	5	3	12	0	0	0	0	0	0	0	0	1	1
8:45 AM	1	3	2	3	9	0	2	0	0	2	2	0	0	0	2
Count Total	11	20	20	38	89	0	2	0	0	2	2	2	4	1	9
Peak Hour	4	7	8	21	40	0	0	0	0	0	0	1	4	0	5

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Meadows Blvd				Prairie Hawk Dr				Meadows Pkwy				Meadows Pkwy				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	1	0	0	4	0	0	0	1	6	1	13	0
7:15 AM	0	0	1	0	0	0	0	0	0	2	0	1	0	1	1	1	7	0
7:30 AM	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0	0	4	0
7:45 AM	0	0	3	0	0	2	0	3	0	0	0	0	0	2	6	0	16	40
8:00 AM	0	0	0	0	0	3	0	3	0	0	1	0	0	2	4	1	14	41
8:15 AM	0	4	0	0	0	0	1	1	0	0	2	2	0	2	2	0	14	48
8:30 AM	0	2	0	0	0	0	0	2	0	0	4	1	0	2	1	0	12	56
8:45 AM	0	0	1	0	0	0	1	2	0	0	2	0	0	0	3	0	9	49
Count Total	0	6	5	0	0	5	3	12	0	6	10	4	0	12	23	3	89	0
Peak Hour	0	0	4	0	0	2	1	4	0	6	1	1	0	6	13	2	40	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Meadows Blvd			Prairie Hawk Dr			Meadows Pkwy			Meadows Pkwy			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	2
Count Total	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

**Two-Hour Count Summaries**

Interval Start		Meadows Blvd				Prairie Hawk Dr				Meadows Pkwy				Meadows Pkwy				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	73	53	21	0	21	28	35	0	16	161	20	1	50	145	44	668	0
4:15 PM		0	66	60	18	0	12	28	38	0	17	160	20	1	47	187	41	695	0
4:30 PM		0	65	37	16	1	30	43	38	0	14	140	9	3	36	207	54	693	0
4:45 PM		0	58	51	16	0	22	36	38	0	21	139	10	3	42	194	40	670	2,726
5:00 PM		1	86	40	37	0	21	28	40	0	29	123	16	1	43	180	41	686	2,744
5:15 PM		0	67	50	32	0	17	43	38	0	24	129	3	0	56	204	30	693	2,742
5:30 PM		0	64	50	15	0	15	33	30	0	11	138	18	1	51	201	33	660	2,709
5:45 PM		1	50	48	30	0	28	26	42	0	13	156	19	1	47	209	55	725	2,764
Count Total		2	529	389	185	1	166	265	299	0	145	1,146	115	11	372	1,527	338	5,490	0
Peak Hour	All	2	267	188	114	0	81	130	150	0	77	546	56	3	197	794	159	2,764	0
	HV	0	1	0	0	0	0	0	3	0	0	10	1	0	2	2	0	19	0
	HV%	0%	0%	0%	0%	-	0%	0%	2%	-	0%	2%	2%	0%	1%	0%	0%	1%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	6	4	1	12	0	0	0	0	0	0	3	0	0	3
4:15 PM	0	4	2	2	8	1	0	0	0	1	0	0	1	1	2
4:30 PM	0	1	4	2	7	0	0	0	0	0	0	1	0	1	2
4:45 PM	0	3	0	1	4	0	0	0	0	0	0	0	0	0	0
5:00 PM	1	2	3	0	6	0	0	0	0	0	0	1	0	0	1
5:15 PM	0	1	3	1	5	0	0	0	0	0	0	1	0	3	4
5:30 PM	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	4	1	5	0	0	0	0	0	0	2	1	0	3
Count Total	2	17	21	10	50	1	0	0	0	1	0	8	2	5	15
Peak Hour	1	3	11	4	19	0	0	0	0	0	0	4	1	3	8

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Meadows Blvd				Prairie Hawk Dr				Meadows Pkwy				Meadows Pkwy				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	4	0	2	0	0	2	2	0	0	1	0	12	0
4:15 PM	0	0	0	0	0	3	0	1	0	0	2	0	0	2	0	0	8	0
4:30 PM	0	0	0	0	0	0	0	1	0	0	4	0	0	2	0	0	7	0
4:45 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	1	0	4	31
5:00 PM	0	1	0	0	0	0	0	2	0	0	3	0	0	0	0	0	6	25
5:15 PM	0	0	0	0	0	0	0	1	0	0	3	0	0	1	0	0	5	22
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	3	18
5:45 PM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	1	0	5	19
Count Total	0	1	1	0	0	7	0	10	0	0	18	3	0	6	4	0	50	0
Peak Hour	0	1	0	0	0	0	0	3	0	0	10	1	0	2	2	0	19	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Meadows Blvd			Prairie Hawk Dr			Meadows Pkwy			Meadows Pkwy			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0				
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Count Total	0	1	0	0	0	0	0	0	0	0	0	0	1	0				
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

New Hope Way Prairie Hawk Dr

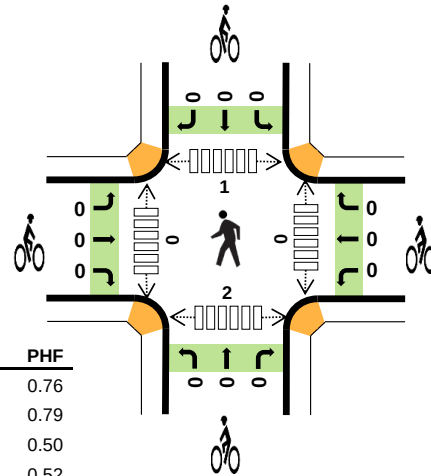
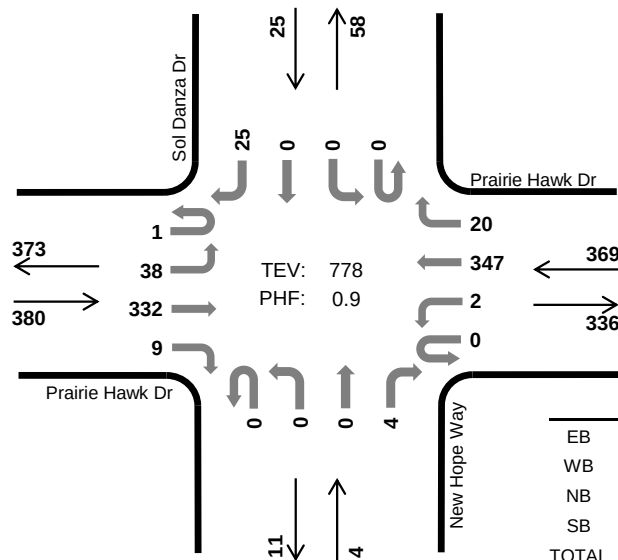


Peak Hour

Date: 08/07/2024

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:15 AM to 8:15 AM



	HV %:	PHF
EB	3.2%	0.76
WB	3.3%	0.79
NB	0.0%	0.50
SB	0.0%	0.52
TOTAL	3.1%	0.90

Two-Hour Count Summaries

Interval Start	Prairie Hawk Dr Eastbound				Prairie Hawk Dr Westbound				New Hope Way Northbound				Sol Danza Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	8	48	0	0	0	85	4	0	1	0	0	0	0	0	3	149	0
7:15 AM	0	10	86	0	0	0	113	4	0	0	0	0	0	0	0	2	215	0
7:30 AM	1	15	109	0	0	0	61	4	0	0	0	1	0	0	0	12	203	0
7:45 AM	0	5	77	3	0	1	71	5	0	0	0	2	0	0	0	7	171	738
8:00 AM	0	8	60	6	0	1	102	7	0	0	0	1	0	0	0	4	189	778
8:15 AM	0	6	73	7	0	4	52	0	0	0	0	1	0	0	0	9	152	715
8:30 AM	0	6	63	4	0	4	64	6	0	0	0	2	0	0	0	5	154	666
8:45 AM	0	10	71	16	0	9	53	2	0	0	0	1	0	0	0	10	172	667
Count Total	1	68	587	36	0	19	601	32	0	1	0	8	0	0	0	52	1,405	0
Peak Hour	All	1	38	332	9	0	2	347	20	0	0	4	0	0	0	25	778	0
	HV	0	0	9	3	0	0	11	1	0	0	0	0	0	0	0	24	0
	HV%	0%	0%	3%	33%	-	0%	3%	5%	-	-	0%	-	-	-	0%	3%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0
7:15 AM	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0
7:30 AM	2	1	0	0	3	0	0	0	0	0	0	0	1	2	3
7:45 AM	5	6	0	0	11	0	0	0	0	0	0	0	0	0	0
8:00 AM	2	5	0	0	7	0	0	0	0	0	0	0	0	0	0
8:15 AM	4	2	0	1	7	0	0	0	0	0	0	0	0	0	0
8:30 AM	3	2	0	0	5	0	0	0	0	0	0	0	0	0	0
8:45 AM	1	3	0	0	4	0	1	0	0	1	0	0	0	0	0
Count Total	21	20	0	1	42	0	1	0	0	1	0	0	1	2	3
Peak Hour	12	12	0	0	24	0	0	0	0	0	0	0	1	2	3

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Prairie Hawk Dr				Prairie Hawk Dr				New Hope Way				Sol Danza Dr				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0
7:15 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
7:30 AM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0
7:45 AM	0	0	3	2	0	0	5	1	0	0	0	0	0	0	0	0	11	19
8:00 AM	0	0	1	1	0	0	5	0	0	0	0	0	0	0	0	0	7	24
8:15 AM	0	0	4	0	0	0	2	0	0	0	0	0	0	0	0	1	7	28
8:30 AM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	5	30
8:45 AM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	4	23
Count Total	0	0	18	3	0	0	19	1	0	0	0	0	0	0	0	1	42	0
Peak Hour	0	0	9	3	0	0	11	1	0	0	0	0	0	0	0	0	24	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Prairie Hawk Dr			Prairie Hawk Dr			New Hope Way			Sol Danza Dr			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0			
Count Total	0	0	0	0	1	0	0	0	0	0	0	0	0	0			
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

New Hope Way Prairie Hawk Dr

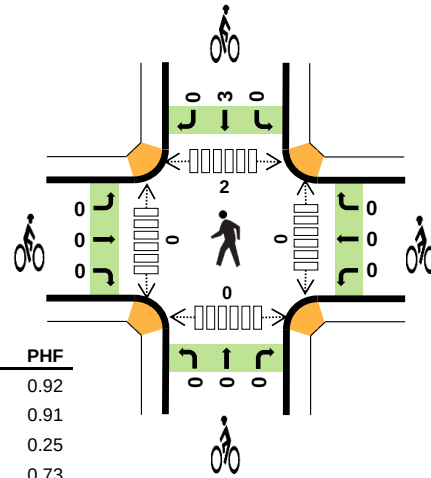
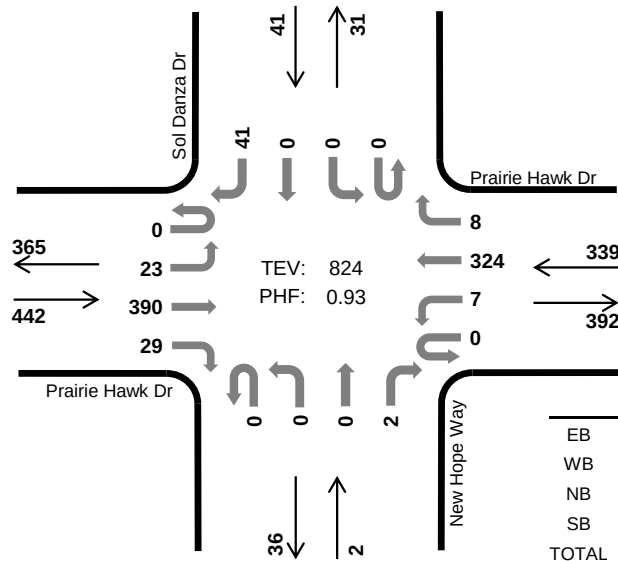


Peak Hour

Date: 08/07/2024

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 5:00 PM to 6:00 PM



	HV %:	PHF
EB	0.7%	0.92
WB	0.9%	0.91
NB	0.0%	0.25
SB	0.0%	0.73
TOTAL	0.7%	0.93

Two-Hour Count Summaries

Interval Start		Prairie Hawk Dr				Prairie Hawk Dr				New Hope Way				Sol Danza Dr				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	7	112	1	0	0	77	3	0	0	0	1	0	0	0	10	211	0
4:15 PM		0	8	116	2	0	0	72	1	0	0	0	0	0	0	0	6	205	0
4:30 PM		0	5	77	2	0	0	100	3	0	0	0	0	0	0	0	16	203	0
4:45 PM		0	5	98	1	0	0	76	4	0	0	0	0	0	0	0	11	195	814
5:00 PM		0	8	92	0	0	2	77	2	0	0	0	2	0	0	0	13	196	799
5:15 PM		0	3	100	5	0	1	82	3	0	0	0	0	0	0	0	10	204	798
5:30 PM		0	7	108	5	0	2	75	2	0	0	0	0	0	0	0	4	203	798
5:45 PM		0	5	90	19	0	2	90	1	0	0	0	0	0	0	0	14	221	824
Count Total		0	48	793	35	0	7	649	19	0	0	0	3	0	0	0	84	1,638	0
Peak Hour	All	0	23	390	29	0	7	324	8	0	0	0	2	0	0	0	41	824	0
	HV	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	6	0
	HV%	-	0%	1%	3%	-	0%	1%	0%	-	-	-	0%	-	-	-	0%	1%	0

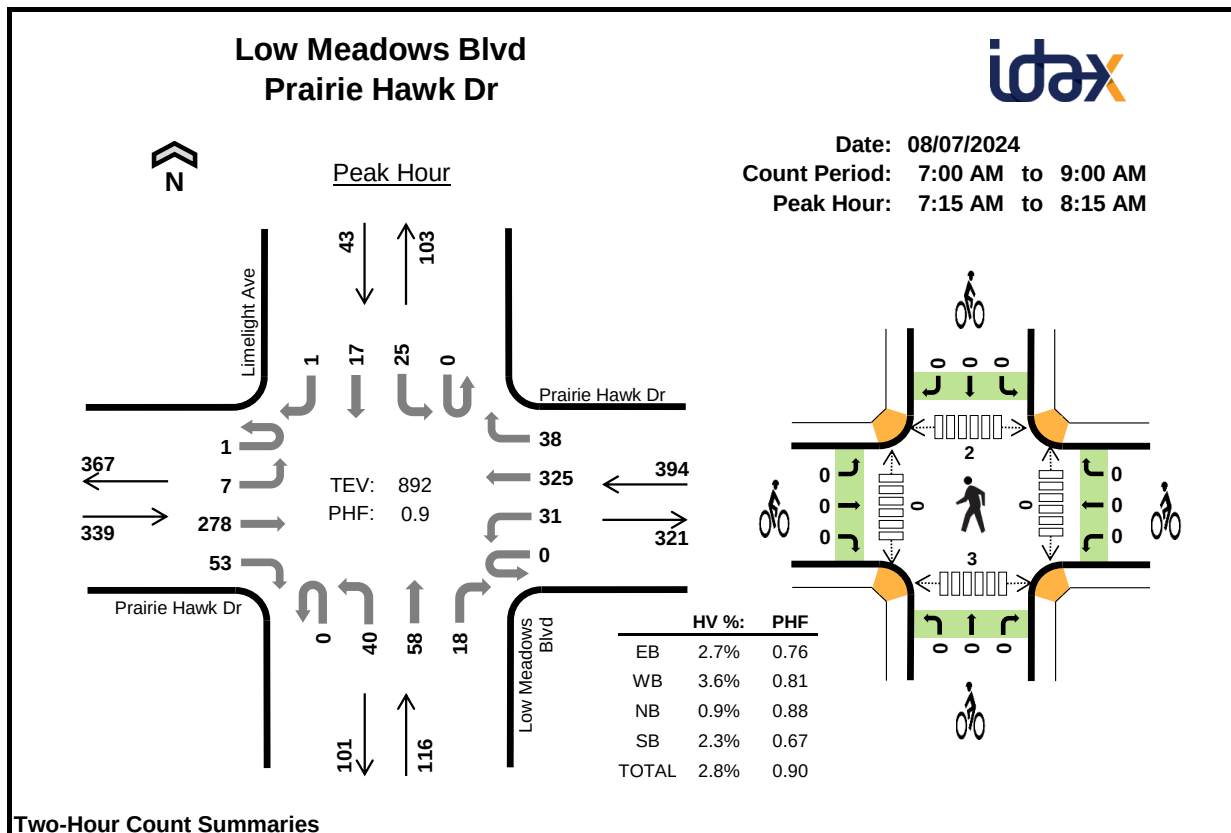
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	3	5	0	0	8	0	0	0	0	0	0	0	0	0	0
4:15 PM	2	4	0	0	6	0	0	0	0	0	2	0	0	0	2
4:30 PM	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0
5:15 PM	1	1	0	0	2	0	0	0	2	2	0	0	1	0	1
5:30 PM	1	0	0	0	1	0	0	0	1	1	0	0	0	0	0
5:45 PM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1
Count Total	10	17	0	0	27	0	0	0	3	3	2	0	2	0	4
Peak Hour	3	3	0	0	6	0	0	0	3	3	0	0	2	0	2

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Prairie Hawk Dr				Prairie Hawk Dr				New Hope Way				Sol Danza Dr				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	3	0	0	0	5	0	0	0	0	0	0	0	0	0	8	0
4:15 PM	0	0	2	0	0	0	4	0	0	0	0	0	0	0	0	0	6	0
4:30 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	4	0
4:45 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3	21
5:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	15
5:15 PM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2	11
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8
5:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
Count Total	0	0	9	1	0	0	17	0	0	0	0	0	0	0	0	0	27	0
Peak Hour	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	6	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Prairie Hawk Dr			Prairie Hawk Dr			New Hope Way			Sol Danza Dr			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	2	2				
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	3				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3				
Count Total	0	0	0	0	0	0	0	0	0	0	3	0	3	0				
Peak Hour	0	0	0	0	0	0	0	0	0	0	3	0	3	0				

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

**Two-Hour Count Summaries**

Interval Start		Prairie Hawk Dr				Prairie Hawk Dr				Low Meadows Blvd				Limelight Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
	7:00 AM	0	0	39	9	0	5	80	6	0	15	10	7	0	3	2	0	176	0
	7:15 AM	0	0	66	18	0	6	105	11	0	13	15	4	0	6	3	0	247	0
	7:30 AM	1	4	91	16	0	10	56	13	0	10	12	3	0	4	5	1	226	0
	7:45 AM	0	2	71	8	0	8	72	8	0	6	14	6	0	9	7	0	211	860
	8:00 AM	0	1	50	11	0	7	92	6	0	11	17	5	0	6	2	0	208	892
	8:15 AM	0	2	63	8	1	1	54	7	0	2	14	5	0	7	1	0	165	810
	8:30 AM	0	1	57	5	0	3	60	13	0	5	10	10	0	9	10	1	184	768
	8:45 AM	0	3	62	9	0	8	60	7	0	5	16	2	0	4	5	0	181	738
Count Total		1	13	499	84	1	48	579	71	0	67	108	42	0	48	35	2	1,598	0
Peak Hour	All	1	7	278	53	0	31	325	38	0	40	58	18	0	25	17	1	892	0
	HV	0	0	9	0	0	0	12	2	0	0	0	1	0	1	0	0	25	0
	HV%	0%	0%	3%	0%	-	0%	4%	5%	-	0%	0%	6%	-	4%	0%	0%	3%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1
7:15 AM	3	1	0	0	4	0	0	0	0	0	0	0	0	0	0
7:30 AM	2	1	0	0	3	0	0	0	0	0	0	0	1	2	3
7:45 AM	3	5	0	1	9	0	0	0	0	0	0	0	0	0	0
8:00 AM	1	7	1	0	9	0	0	0	0	0	0	0	1	1	2
8:15 AM	3	2	0	0	5	0	0	0	0	0	0	0	0	1	1
8:30 AM	3	3	1	1	8	0	0	0	0	0	0	0	0	1	1
8:45 AM	2	3	0	0	5	0	2	0	0	2	0	0	0	0	0
Count Total	18	22	2	2	44	0	2	0	0	2	0	0	3	5	8
Peak Hour	9	14	1	1	25	0	0	0	0	0	0	0	2	3	5

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Prairie Hawk Dr				Prairie Hawk Dr				Low Meadows Blvd				Limelight Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	4	0
7:30 AM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0
7:45 AM	0	0	3	0	0	0	5	0	0	0	0	0	0	0	1	0	9	17
8:00 AM	0	0	1	0	0	0	6	1	0	0	0	0	1	0	0	0	9	25
8:15 AM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	5	26
8:30 AM	0	0	3	0	0	0	3	0	0	0	0	0	1	0	1	0	8	31
8:45 AM	0	0	0	2	0	0	3	0	0	0	0	0	0	0	0	0	5	27
Count Total	0	0	16	2	0	0	20	2	0	0	0	2	0	2	0	0	44	0
Peak Hour	0	0	9	0	0	0	12	2	0	0	0	1	0	1	0	0	25	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Prairie Hawk Dr			Prairie Hawk Dr			Low Meadows Blvd			Limelight Ave			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	2	2			
Count Total	0	0	0	0	2	0	0	0	0	0	0	0	2	0			
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Low Meadows Blvd Prairie Hawk Dr

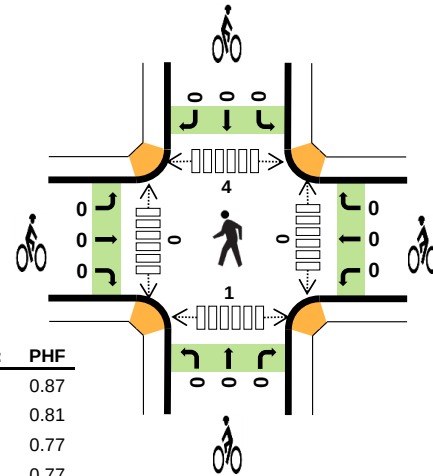
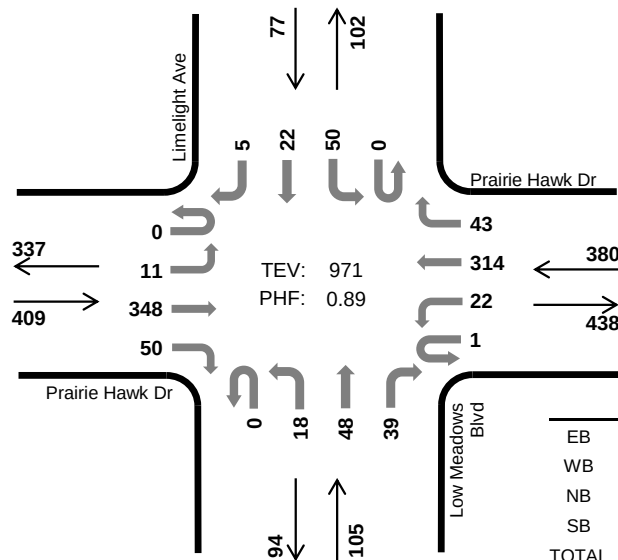


Peak Hour

Date: 08/07/2024

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:00 PM to 5:00 PM



Two-Hour Count Summaries

Interval Start		Prairie Hawk Dr				Prairie Hawk Dr				Low Meadows Blvd				Limelight Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	2	95	19	0	4	76	18	0	3	13	18	0	16	5	4	273	0
4:15 PM		0	5	99	14	0	7	68	7	0	3	14	10	0	16	4	0	247	0
4:30 PM		0	0	67	9	0	8	98	11	0	8	11	4	0	7	3	1	227	0
4:45 PM		0	4	87	8	1	3	72	7	0	4	10	7	0	11	10	0	224	971
5:00 PM		0	4	81	8	0	12	69	12	1	10	10	4	0	13	3	4	231	929
5:15 PM		0	2	74	23	2	7	75	8	0	6	16	7	0	8	6	5	239	921
5:30 PM		0	6	83	17	0	6	65	9	0	10	9	8	0	9	10	1	233	927
5:45 PM		0	0	76	15	0	9	91	8	0	3	10	7	0	6	8	1	234	937
Count Total		0	23	662	113	3	56	614	80	1	47	93	65	0	86	49	16	1,908	0
Peak Hour	All	0	11	348	50	1	22	314	43	0	18	48	39	0	50	22	5	971	0
	HV	0	0	7	0	0	0	14	0	0	1	0	0	0	0	1	0	23	0
	HV%	-	0%	2%	0%	0%	0%	4%	0%	-	6%	0%	0%	-	0%	5%	0%	2%	0

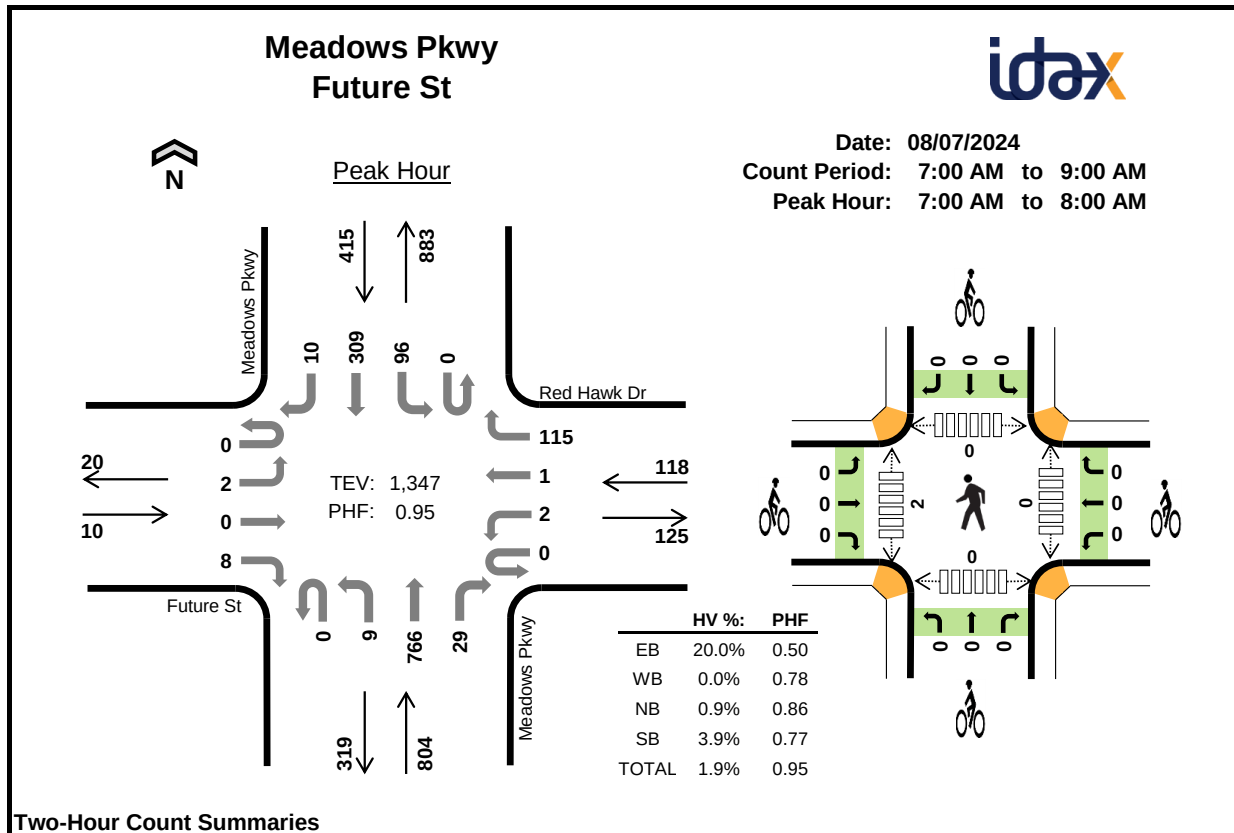
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	3	5	1	0	9	0	0	0	0	0	0	0	0	0	0
4:15 PM	2	4	0	1	7	0	0	0	0	0	0	0	0	0	0
4:30 PM	2	2	0	0	4	0	0	0	0	0	0	0	4	0	4
4:45 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	1	1
5:00 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	1	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:45 PM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1
Count Total	9	16	1	1	27	0	0	0	0	0	0	0	6	2	8
Peak Hour	7	14	1	1	23	0	0	0	0	0	0	0	4	1	5

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Prairie Hawk Dr				Prairie Hawk Dr				Low Meadows Blvd				Limelight Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	3	0	0	0	5	0	0	1	0	0	0	0	0	0	9	0
4:15 PM	0	0	2	0	0	0	4	0	0	0	0	0	0	0	0	1	7	0
4:30 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	4	0
4:45 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3	23
5:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	16
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
5:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
Count Total	0	0	9	0	0	0	16	0	0	1	0	0	0	0	0	1	27	0
Peak Hour	0	0	7	0	0	0	14	0	0	1	0	0	0	0	0	1	23	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Prairie Hawk Dr				Prairie Hawk Dr				Low Meadows Blvd				Limelight Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	LT	TH	RT		LT	TH	RT		LT	TH	RT		LT	TH	RT			
4:00 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
4:15 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
4:30 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
4:45 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
5:00 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
5:15 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
5:30 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
5:45 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
Count Total	0	0	0		0	0	0		0	0	0		0	0	0		0	0
Peak Hour	0	0	0		0	0	0		0	0	0		0	0	0		0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

**Two-Hour Count Summaries**

Interval Start		Future St				Red Hawk Dr				Meadows Pkwy				Meadows Pkwy				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	1	0	1	0	36	0	2	195	4	0	20	55	4	318	0
7:15 AM		0	0	0	2	0	0	1	37	0	5	225	5	0	24	52	3	354	0
7:30 AM		0	1	0	1	0	1	0	21	0	0	186	10	0	31	91	1	343	0
7:45 AM		0	1	0	4	0	0	0	21	0	2	160	10	0	21	111	2	332	1,347
8:00 AM		0	1	0	0	0	1	1	22	0	2	164	2	0	13	80	2	288	1,317
8:15 AM		0	0	0	1	0	1	0	26	1	4	169	4	1	15	91	4	317	1,280
8:30 AM		0	2	0	1	0	3	0	22	0	3	138	7	0	13	99	1	289	1,226
8:45 AM		0	5	0	3	0	1	3	25	0	3	170	6	0	17	105	2	340	1,234
Count Total		0	10	0	13	0	8	5	210	1	21	1,407	48	1	154	684	19	2,581	0
Peak Hour	All	0	2	0	8	0	2	1	115	0	9	766	29	0	96	309	10	1,347	0
	HV	0	1	0	1	0	0	0	0	0	0	7	0	0	6	9	1	25	0
	HV%	-	50%	-	13%	-	0%	0%	0%	-	0%	1%	0%	-	6%	3%	10%	2%	0

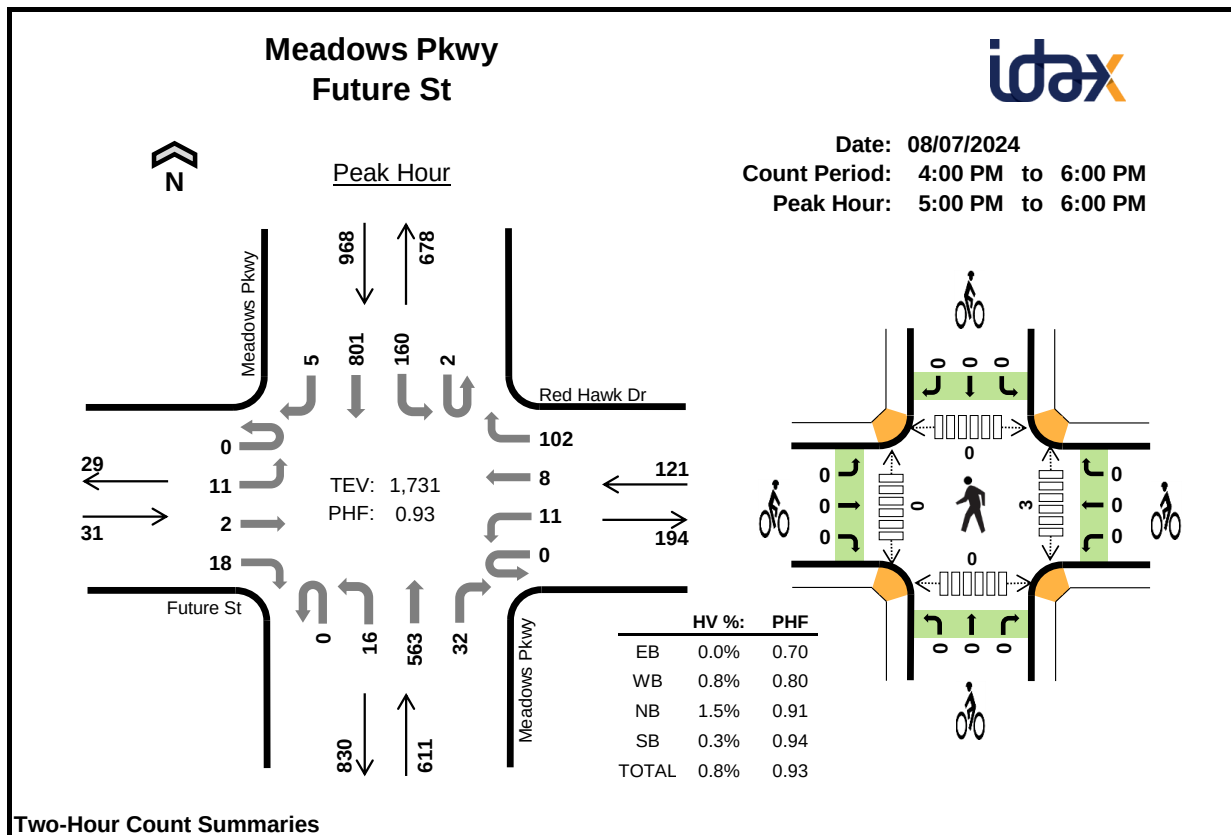
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	4	8	12	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	3	0	3	0	0	0	0	0	0	1	0	0	1
7:30 AM	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	0	7	8	0	0	0	0	0	0	1	0	0	1
8:00 AM	0	1	0	7	8	0	0	0	0	0	1	0	0	0	1
8:15 AM	0	0	4	3	7	0	0	0	0	0	0	1	0	0	1
8:30 AM	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	3	2	5	0	0	0	0	0	2	0	0	0	2
Count Total	2	1	18	28	49	0	0	0	0	0	3	3	0	0	6
Peak Hour	2	0	7	16	25	0	0	0	0	0	0	2	0	0	2

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Future St				Red Hawk Dr				Meadows Pkwy				Meadows Pkwy				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	3	4	1	12	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0
7:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	2	5	0	8	25
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	2	4	1	8	21
8:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	3	0	7	25
8:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	27
8:45 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	5	24
Count Total	0	1	0	1	0	0	0	1	0	0	18	0	0	8	18	2	49	0
Peak Hour	0	1	0	1	0	0	0	0	0	0	7	0	0	6	9	1	25	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Future St			Red Hawk Dr			Meadows Pkwy			Meadows Pkwy			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

**Two-Hour Count Summaries**

Interval Start		Future St				Red Hawk Dr				Meadows Pkwy				Meadows Pkwy				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
	4:00 PM	0	2	2	5	0	3	1	40	0	6	156	8	1	34	142	1	401	0
	4:15 PM	0	5	0	1	0	4	1	38	0	2	156	3	3	45	154	0	412	0
	4:30 PM	0	3	1	3	0	1	3	27	0	3	134	2	0	42	197	0	416	0
	4:45 PM	0	2	0	2	0	1	2	33	1	6	131	3	0	34	192	2	409	1,638
	5:00 PM	0	9	0	1	0	6	1	31	0	0	127	9	0	43	188	1	416	1,653
	5:15 PM	0	1	2	8	0	2	2	22	0	6	129	5	1	53	197	0	428	1,669
	5:30 PM	0	0	0	3	0	2	3	21	0	4	154	9	0	35	192	1	424	1,677
	5:45 PM	0	1	0	6	0	1	2	28	0	6	153	9	1	29	224	3	463	1,731
Count Total		0	23	5	29	0	20	15	240	1	33	1,140	48	6	315	1,486	8	3,369	0
Peak Hour	All	0	11	2	18	0	11	8	102	0	16	563	32	2	160	801	5	1,731	0
	HV	0	0	0	0	0	0	0	1	0	0	9	0	0	0	3	0	13	0
	HV%	-	0%	0%	0%	-	0%	0%	1%	-	0%	2%	0%	0%	0%	0%	0%	1%	0

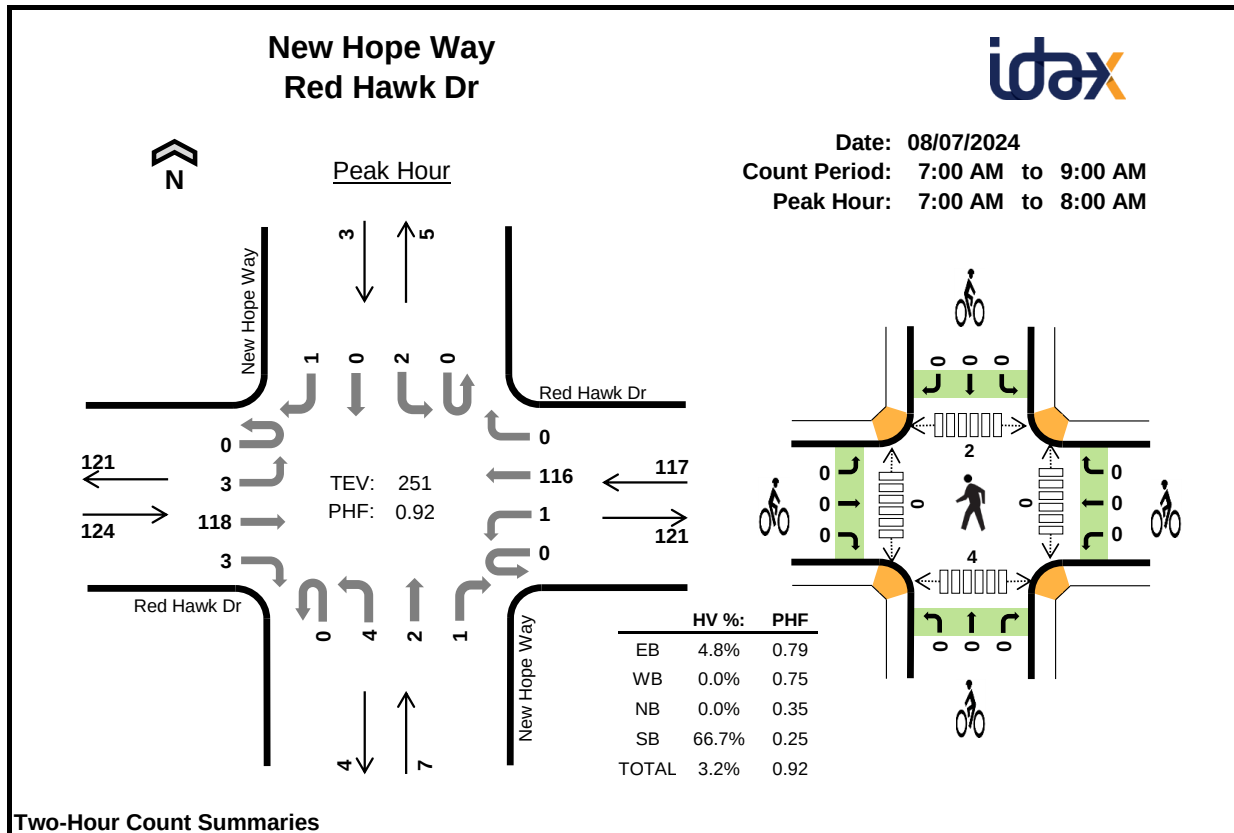
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	4	5	9	0	0	0	0	0	1	1	0	0	2
4:15 PM	0	1	1	3	5	0	0	0	0	0	2	0	0	0	2
4:30 PM	0	0	4	0	4	0	0	0	0	0	0	1	0	0	1
4:45 PM	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1
5:00 PM	0	1	2	0	3	0	0	0	0	0	1	0	0	0	1
5:15 PM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	1	2	3	0	0	0	0	0	2	0	0	0	2
5:45 PM	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0
Count Total	0	2	19	11	32	0	0	0	0	0	6	3	0	0	9
Peak Hour	0	1	9	3	13	0	0	0	0	0	3	0	0	0	3

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Future St				Red Hawk Dr				Meadows Pkwy				Meadows Pkwy				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0	9	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	3	0	5	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	19
5:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	3	13
5:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	11
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	10
5:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	13
Count Total	0	0	0	0	0	0	0	2	0	0	19	0	0	0	11	0	32	0
Peak Hour	0	0	0	0	0	0	0	1	0	0	9	0	0	0	3	0	13	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Future St			Red Hawk Dr			Meadows Pkwy			Meadows Pkwy			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

**Two-Hour Count Summaries**

Interval Start		Red Hawk Dr				Red Hawk Dr				New Hope Way				New Hope Way				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	24	0	0	0	39	0	0	1	0	0	0	0	0	0	64	0
7:15 AM		0	1	29	0	0	1	37	0	0	0	0	0	0	0	0	0	68	0
7:30 AM		0	1	38	0	0	0	21	0	0	1	0	0	0	0	0	0	61	0
7:45 AM		0	1	27	3	0	0	19	0	0	2	2	1	0	2	0	1	58	251
8:00 AM		0	1	13	1	0	0	22	2	0	2	0	1	0	0	0	0	42	229
8:15 AM		0	3	14	1	0	0	22	1	0	3	0	0	0	0	0	0	44	205
8:30 AM		0	5	13	1	0	0	24	1	0	0	0	0	0	0	0	0	44	188
8:45 AM		0	3	18	0	0	0	27	1	0	3	1	0	0	0	0	1	54	184
Count Total		0	15	176	6	0	1	211	5	0	12	3	2	0	2	0	2	435	0
Peak Hour	All	0	3	118	3	0	1	116	0	0	4	2	1	0	2	0	1	251	0
	HV	0	0	6	0	0	0	0	0	0	0	0	0	0	2	0	0	8	0
	HV%	-	0%	5%	0%	-	0%	0%	-	-	0%	0%	0%	-	100%	-	0%	3%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	3	0	0	0	3	0	0	0	0	0	0	0	0	2	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
7:30 AM	1	0	0	0	1	0	0	0	0	0	0	0	2	0	2
7:45 AM	2	0	0	2	4	0	0	0	0	0	0	0	0	0	0
8:00 AM	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Count Total	8	1	0	2	11	0	0	0	0	0	0	0	2	6	8
Peak Hour	6	0	0	2	8	0	0	0	0	0	0	0	2	4	6

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Red Hawk Dr				Red Hawk Dr				New Hope Way				New Hope Way				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	4	8
8:00 AM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	8
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Count Total	0	0	8	0	0	0	1	0	0	0	0	0	0	2	0	0	11	0
Peak Hour	0	0	6	0	0	0	0	0	0	0	0	0	0	2	0	0	8	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Red Hawk Dr			Red Hawk Dr			New Hope Way			New Hope Way			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

New Hope Way Red Hawk Dr

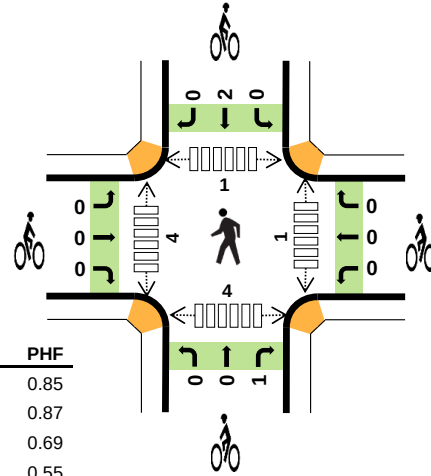
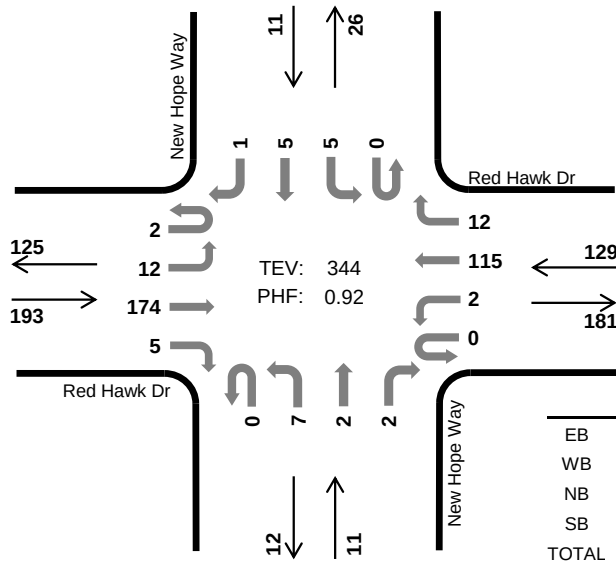


Peak Hour

Date: 08/07/2024

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 5:00 PM to 6:00 PM



	HV %:	PHF
EB	0.0%	0.85
WB	0.8%	0.87
NB	0.0%	0.69
SB	0.0%	0.55
TOTAL	0.3%	0.92

Two-Hour Count Summaries

Interval Start		Red Hawk Dr				Red Hawk Dr				New Hope Way				New Hope Way				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		1	0	35	2	0	0	42	0	0	2	0	0	0	2	1	0	85	0
4:15 PM		0	0	45	1	0	0	34	0	0	1	0	2	0	0	1	0	84	0
4:30 PM		0	0	46	0	0	1	28	0	0	2	0	0	0	0	0	0	77	0
4:45 PM		1	0	36	1	0	0	36	0	0	2	0	0	0	1	0	0	77	323
5:00 PM		1	1	49	2	0	0	35	0	0	3	1	0	0	0	1	0	93	331
5:15 PM		1	1	54	1	0	1	27	2	0	1	0	1	0	1	2	1	93	340
5:30 PM		0	8	37	0	0	0	26	1	0	0	1	1	0	4	1	0	79	342
5:45 PM		0	2	34	2	0	1	27	9	0	3	0	0	0	0	1	0	79	344
Count Total		4	12	336	9	0	3	255	12	0	14	2	4	0	8	7	1	667	0
Peak Hour	All	2	12	174	5	0	2	115	12	0	7	2	2	0	5	5	1	344	0
	HV	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
	HV%	0%	0%	0%	0%	-	0%	1%	0%	-	0%	0%	0%	-	0%	0%	0%	0%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	1	0	0	0	1	1	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	1	2
5:15 PM	0	0	0	0	0	0	0	1	2	3	0	2	1	0	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	2	3
Count Total	0	2	0	0	2	0	1	1	3	5	1	4	1	4	10
Peak Hour	0	1	0	0	1	0	0	1	2	3	1	4	1	4	10

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Red Hawk Dr				Red Hawk Dr				New Hope Way				New Hope Way				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0
Peak Hour	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Red Hawk Dr			Red Hawk Dr			New Hope Way			New Hope Way			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0				
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	0				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
5:15 PM	0	0	0	0	0	0	0	0	1	0	2	0	3	4				
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3				
Count Total	0	0	0	0	1	0	0	0	1	1	2	0	5	0				
Peak Hour	0	0	0	0	0	0	0	0	1	0	2	0	3	0				

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

APPENDIX E – Existing Synchro Outputs

Queues

1: Meadows Blvd & Prairie Hawk Dr & Meadows Pkwy

08/15/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	322	247	86	47	212	180	208	722	68	134	408	270
v/c Ratio	0.44	0.31	0.17	0.17	0.49	0.11	0.21	0.54	0.10	0.37	0.30	0.17
Control Delay (s/veh)	24.4	31.1	0.7	22.0	40.6	0.1	5.9	23.9	4.8	14.2	21.2	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.4	31.1	0.7	22.0	40.6	0.1	5.9	23.9	4.8	14.2	21.2	0.2
Queue Length 50th (ft)	70	66	0	19	60	0	8	219	6	35	83	0
Queue Length 95th (ft)	88	92	0	37	87	0	m28	263	m14	69	129	0
Internal Link Dist (ft)	963			501			650			1471		
Turn Bay Length (ft)	350		200	240		230	180			410		180
Base Capacity (vph)	932	796	502	447	430	1583	1298	1330	708	508	1363	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.31	0.17	0.11	0.49	0.11	0.16	0.54	0.10	0.26	0.30	0.17
Intersection Summary												
m Volume for 95th percentile queue is metered by upstream signal.												

HCM 7th Signalized Intersection Summary

1: Meadows Blvd & Prairie Hawk Dr & Meadows Pkwy

08/15/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	274	210	73	40	180	153	177	614	58	115	351	232
Future Volume (veh/h)	274	210	73	40	180	153	177	614	58	115	351	232
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	322	247	86	47	212	0	208	722	68	134	408	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	593	511	228	244	276		1141	1696	757	423	1707	
Arrive On Green	0.11	0.14	0.14	0.05	0.08	0.00	0.06	0.48	0.48	0.06	0.48	0.00
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	322	247	86	47	212	0	208	722	68	134	408	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	7.3	5.8	4.4	2.1	5.3	0.0	2.7	12.0	2.1	3.4	6.1	0.0
Cycle Q Clear(g_c), s	7.3	5.8	4.4	2.1	5.3	0.0	2.7	12.0	2.1	3.4	6.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	593	511	228	244	276		1141	1696	757	423	1707	
V/C Ratio(X)	0.54	0.48	0.38	0.19	0.77		0.18	0.43	0.09	0.32	0.24	
Avail Cap(c_a), veh/h	1010	511	228	478	276		1596	1696	757	653	1707	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.2	35.5	34.9	35.4	40.7	0.0	10.6	15.4	12.8	11.4	13.7	0.0
Incr Delay (d2), s/veh	0.8	0.7	1.0	0.4	12.2	0.0	0.1	0.8	0.2	0.4	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	2.4	1.7	0.9	2.7	0.0	0.9	4.5	0.7	1.2	2.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.9	36.2	35.9	35.8	52.9	0.0	10.7	16.2	13.1	11.8	14.1	0.0
LnGrp LOS	C	D	D	D	D		B	B	B	B	B	
Approach Vol, veh/h	655			259			998			542		
Approach Delay, s/veh	34.1			49.8			14.8			13.5		
Approach LOS	C			D			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	49.7	16.1	13.0	11.4	49.5	10.2	18.9				
Change Period (Y+Rc), s	6.0	6.5	6.0	6.0	6.0	6.5	6.0	6.0				
Max Green Setting (Gmax), s	17.0	20.5	21.0	7.0	17.0	20.5	16.0	12.0				
Max Q Clear Time (g_c+I1), s	4.7	8.1	9.3	7.3	5.4	14.0	4.1	7.8				
Green Ext Time (p_c), s	0.5	1.9	0.8	0.0	0.2	2.5	0.0	0.6				

Intersection Summary

HCM 7th Control Delay, s/veh	23.4
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	39	335	9	2	348	20	0	0	4	0	0	25
Future Vol, veh/h	39	335	9	2	348	20	0	0	4	0	0	25
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	200	-	-	150	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	46	394	11	2	409	24	0	0	5	0	0	29
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	433	0	0	405	0	0	701	929	202	-	-	216
Stage 1	-	-	-	-	-	-	491	491	-	-	-	-
Stage 2	-	-	-	-	-	-	209	438	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	-	-	3.32
Pot Cap-1 Maneuver	1123	-	-	1151	-	-	326	266	805	0	0	788
Stage 1	-	-	-	-	-	-	528	546	-	0	0	-
Stage 2	-	-	-	-	-	-	773	577	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1123	-	-	1151	-	-	300	255	805	-	-	788
Mov Cap-2 Maneuver	-	-	-	-	-	-	300	255	-	-	-	-
Stage 1	-	-	-	-	-	-	506	524	-	-	-	-
Stage 2	-	-	-	-	-	-	743	576	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.85			0.04			9.5			9.75		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	805	1123	-	-	1151	-	-	788				
HCM Lane V/C Ratio	0.006	0.041	-	-	0.002	-	-	0.037				
HCM Control Delay (s/veh)	9.5	8.3	-	-	8.1	-	-	9.7				
HCM Lane LOS	A	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1				

Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	278	53	31	329	28	40	58	18	35	17	1
Future Vol, veh/h	8	278	53	31	329	28	40	58	18	35	17	1
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	160	-	250	160	-	-	-	-	135	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	88	88	88	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	327	62	36	387	33	45	66	20	41	20	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	420	0	0	389	0	0	622	839	164	692	885	210
Stage 1	-	-	-	-	-	-	346	346	-	476	476	-
Stage 2	-	-	-	-	-	-	276	493	-	215	408	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1136	-	-	1166	-	-	371	301	852	330	283	796
Stage 1	-	-	-	-	-	-	643	634	-	538	555	-
Stage 2	-	-	-	-	-	-	706	545	-	767	595	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1136	-	-	1166	-	-	330	289	852	241	271	796
Mov Cap-2 Maneuver	-	-	-	-	-	-	330	289	-	241	271	-
Stage 1	-	-	-	-	-	-	638	629	-	522	537	-
Stage 2	-	-	-	-	-	-	658	528	-	665	590	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.19			0.65			21.29			21.55		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1		NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	
Capacity (veh/h)	304		852	1136	-	-	1166	-	-	241	282	
HCM Lane V/C Ratio	0.366		0.024	0.008	-	-	0.031	-	-	0.171	0.075	
HCM Control Delay (s/veh)	23.5		9.3	8.2	-	-	8.2	-	-	23	18.8	
HCM Lane LOS	C		A	A	-	-	A	-	-	C	C	
HCM 95th %tile Q(veh)	1.6		0.1	0	-	-	0.1	-	-	0.6	0.2	

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	7	2	2	101	9	745	27	89	367	8
Future Vol, veh/h	3	0	7	2	2	101	9	745	27	89	367	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	200	-	0	200	-	200	170	-	145
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	86	86	86	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	8	2	2	119	10	866	31	105	432	9

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1096	1560	216	1313	1538	433	441	0	0	898	0	0
Stage 1	641	641	-	887	887	-	-	-	-	-	-	-
Stage 2	455	919	-	425	651	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*276	142	*987	178	147	*894	1259	-	-	913	-	-
Stage 1	*538	542	-	468	476	-	-	-	-	-	-	-
Stage 2	*843	458	-	741	536	-	-	-	-	-	-	-
Platoon blocked, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Cap-1 Maneuver	*207	124	*987	155	129	*894	1259	-	-	913	-	-
Mov Cap-2 Maneuver	*207	124	-	155	129	-	-	-	-	-	-	-
Stage 1	*476	479	-	464	472	-	-	-	-	-	-	-
Stage 2	*721	454	-	650	474	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v12.89		10.47	0.09	1.81
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1259	-	-	207	987	141	894	913	-	-
HCM Lane V/C Ratio	0.008	-	-	0.017	0.008	0.033	0.133	0.115	-	-
HCM Control Delay (s/veh)	7.9	-	-	22.7	8.7	31.4	9.6	9.5	-	-
HCM Lane LOS	A	-	-	C	A	D	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0.1	0.5	0.4	-	-

Notes												
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined						*: All major volume in platoon				

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	108	4	1	99	1	5	2	2	2	0	1
Future Vol, veh/h	4	108	4	1	99	1	5	2	2	2	0	1
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	140	-	-	75	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	127	5	1	116	1	6	2	2	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	118	0	0	132	0	0	258	259	129	257	261	117
Stage 1	-	-	-	-	-	-	139	139	-	119	119	-
Stage 2	-	-	-	-	-	-	119	120	-	138	141	-
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	1471	-	-	1453	-	-	695	646	920	696	644	935
Stage 1	-	-	-	-	-	-	864	782	-	885	797	-
Stage 2	-	-	-	-	-	-	886	796	-	865	780	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1471	-	-	1453	-	-	692	643	920	689	642	935
Mov Cap-2 Maneuver	-	-	-	-	-	-	692	643	-	689	642	-
Stage 1	-	-	-	-	-	-	861	779	-	884	796	-
Stage 2	-	-	-	-	-	-	884	796	-	858	777	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.26			0.07			10.08			9.79		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	719	1471	-	-	1453	-	-	755
HCM Lane V/C Ratio	0.015	0.003	-	-	0.001	-	-	0.005
HCM Control Delay (s/veh)	10.1	7.5	-	-	7.5	-	-	9.8
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

HCM 7th TWSC
6: New Hope Way & S Site Access

08/15/2024

Intersection						
Int Delay, s/veh	4.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	3	3	4	0	0
Future Vol, veh/h	0	3	3	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	3	4	0	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	12	1	1
Stage 1	1	-	-
Stage 2	11	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	1008	1083	1622
Stage 1	1022	-	-
Stage 2	1012	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	1006	1083	1622
Mov Cap-2 Maneuver	1006	-	-
Stage 1	1020	-	-
Stage 2	1012	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.33	3.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	771	-	1083	-	-
HCM Lane V/C Ratio	0.002	-	0.003	-	-
HCM Control Delay (s/veh)	7.2	0	8.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 7th TWSC
7: New Hope Way & N Site Access

08/15/2024

Intersection

Int Delay, s/veh 0

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 0 0 0 4 0 11

Future Vol, veh/h 0 0 0 4 0 11

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 0 0 0 4 0 12

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 10 6 12 0 - 0

Stage 1 6 - - - - -

Stage 2 4 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 1010 1077 1607 - - -

Stage 1 1017 - - - - -

Stage 2 1019 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 1010 1077 1607 - - -

Mov Cap-2 Maneuver 1010 - - - - -

Stage 1 1017 - - - - -

Stage 2 1019 - - - - -

Approach EB NB SB

HCM Control Delay, s/v 0 0 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1607 - - - - -

HCM Lane V/C Ratio - - - - -

HCM Control Delay (s/veh) 0 - 0 - -

HCM Lane LOS A - A - -

HCM 95th %tile Q(veh) 0 - - - -

Queues

1: Meadows Blvd & Prairie Hawk Dr & Meadows Pkwy

08/15/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	309	233	131	88	146	163	86	607	62	217	863	173
v/c Ratio	0.45	0.41	0.32	0.31	0.41	0.10	0.14	0.46	0.08	0.47	0.54	0.11
Control Delay (s/veh)	26.0	37.1	3.8	25.6	40.9	0.1	5.8	23.5	2.9	14.1	21.3	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	26.0	37.1	3.8	25.6	40.9	0.1	5.8	23.5	2.9	14.1	21.3	0.1
Queue Length 50th (ft)	69	65	0	37	41	0	3	178	1	56	190	0
Queue Length 95th (ft)	91	95	15	67	69	0	m11	233	m12	108	285	0
Internal Link Dist (ft)	963			501			650			1471		
Turn Bay Length (ft)	350		200	240		230	180			410		180
Base Capacity (vph)	851	638	439	330	368	1583	946	1327	753	516	1598	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.37	0.30	0.27	0.40	0.10	0.09	0.46	0.08	0.42	0.54	0.11

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 7th Signalized Intersection Summary

1: Meadows Blvd & Prairie Hawk Dr & Meadows Pkwy

08/15/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	203	114	81	134	150	77	546	56	200	794	159
Future Volume (veh/h)	269	203	114	81	134	150	77	546	56	200	794	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	309	233	131	88	146	0	86	607	62	217	863	0
Peak Hour Factor	0.87	0.87	0.87	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	612	397	177	251	246		720	1640	731	504	1833	
Arrive On Green	0.11	0.11	0.11	0.07	0.07	0.00	0.03	0.46	0.46	0.09	0.52	0.00
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	309	233	131	88	146	0	86	607	62	217	863	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	7.3	5.6	7.2	4.0	3.6	0.0	1.2	10.0	2.0	5.5	14.0	0.0
Cycle Q Clear(g_c), s	7.3	5.6	7.2	4.0	3.6	0.0	1.2	10.0	2.0	5.5	14.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	612	397	177	251	246		720	1640	731	504	1833	
V/C Ratio(X)	0.50	0.59	0.74	0.35	0.59		0.12	0.37	0.08	0.43	0.47	
Avail Cap(c_a), veh/h	922	592	264	348	316		1184	1640	731	646	1833	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.3	38.0	38.7	35.3	40.7	0.0	12.3	15.7	13.6	10.9	13.9	0.0
Incr Delay (d2), s/veh	0.6	1.4	5.9	0.8	2.3	0.0	0.1	0.6	0.2	0.6	0.9	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	2.4	3.0	1.7	1.6	0.0	0.4	3.8	0.7	1.9	5.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.0	39.4	44.6	36.1	42.9	0.0	12.4	16.4	13.8	11.5	14.8	0.0
LnGrp LOS	C	D	D	D	D		B	B	B	B	B	
Approach Vol, veh/h	673			234			755			1080		
Approach Delay, s/veh	37.9			40.4			15.7			14.1		
Approach LOS	D			D			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	52.9	15.9	12.2	13.8	48.0	12.1	16.1				
Change Period (Y+Rc), s	6.0	6.5	6.0	6.0	6.0	6.5	6.0	6.0				
Max Green Setting (Gmax), s	15.0	24.5	18.0	8.0	15.0	24.5	11.0	15.0				
Max Q Clear Time (g_c+I1), s	3.2	16.0	9.3	5.6	7.5	12.0	6.0	9.2				
Green Ext Time (p_c), s	0.1	3.5	0.7	0.1	0.3	3.2	0.1	0.9				

Intersection Summary

HCM 7th Control Delay, s/veh	22.7
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	407	29	7	324	8	0	0	2	0	0	41
Future Vol, veh/h	23	407	29	7	324	8	0	0	2	0	0	41
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	200	-	-	150	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	91	91	91	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	442	32	8	356	9	0	0	2	0	0	48

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	365	0	0	474	0	0	702	888	237	-	-	182
Stage 1	-	-	-	-	-	-	508	508	-	-	-	-
Stage 2	-	-	-	-	-	-	193	380	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	-	-	3.32
Pot Cap-1 Maneuver	1190	-	-	1084	-	-	325	281	764	0	0	829
Stage 1	-	-	-	-	-	-	516	537	-	0	0	-
Stage 2	-	-	-	-	-	-	790	612	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1190	-	-	1084	-	-	298	273	764	-	-	829
Mov Cap-2 Maneuver	-	-	-	-	-	-	298	273	-	-	-	-
Stage 1	-	-	-	-	-	-	505	526	-	-	-	-
Stage 2	-	-	-	-	-	-	739	608	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.41			0.17			9.72			9.61		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	764	1190	-	-	1084	-	-	829
HCM Lane V/C Ratio	0.003	0.021	-	-	0.007	-	-	0.058
HCM Control Delay (s/veh)	9.7	8.1	-	-	8.3	-	-	9.6
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.2

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	348	50	23	316	43	18	48	39	50	22	5
Future Vol, veh/h	11	348	50	23	316	43	18	48	39	50	22	5
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	160	-	250	160	-	-	-	-	135	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	400	57	27	372	51	21	56	46	59	26	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	422	0	0	457	0	0	678	902	200	705	934	211
Stage 1	-	-	-	-	-	-	425	425	-	451	451	-
Stage 2	-	-	-	-	-	-	253	476	-	254	483	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1133	-	-	1100	-	-	338	276	808	323	264	794
Stage 1	-	-	-	-	-	-	577	585	-	557	569	-
Stage 2	-	-	-	-	-	-	729	555	-	729	551	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1133	-	-	1100	-	-	292	266	808	234	255	794
Mov Cap-2 Maneuver	-	-	-	-	-	-	292	266	-	234	255	-
Stage 1	-	-	-	-	-	-	571	578	-	544	555	-
Stage 2	-	-	-	-	-	-	673	541	-	613	545	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.22	0.5	18.3	23.18
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	273	808	1133	-	-	1100	-	-	234	292
HCM Lane V/C Ratio	0.285	0.057	0.011	-	-	0.025	-	-	0.252	0.109
HCM Control Delay (s/veh)	23.4	9.7	8.2	-	-	8.4	-	-	25.5	18.8
HCM Lane LOS	C	A	A	-	-	A	-	-	D	C
HCM 95th %tile Q(veh)	1.1	0.2	0	-	-	0.1	-	-	1	0.4

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	2	18	11	8	104	16	564	32	162	822	5
Future Vol, veh/h	11	2	18	11	8	104	16	564	32	162	822	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	200	-	0	200	-	200	170	-	145
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	91	91	91	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	2	21	13	9	122	18	620	35	176	893	5

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	1595	1936	447	1455	1906	310	899	0	0	655	0	0
Stage 1	1246	1246	-	655	655	-	-	-	-	-	-	-
Stage 2	350	690	-	800	1251	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*133	85	*871	186	90	*940	941	-	-	1095	-	-
Stage 1	*271	312	-	597	578	-	-	-	-	-	-	-
Stage 2	*887	555	-	580	310	-	-	-	-	-	-	-
Platoon blocked, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Cap-1 Maneuver	*85	70	*871	145	74	*940	941	-	-	1095	-	-
Mov Cap-2 Maneuver	*85	70	-	145	74	-	-	-	-	-	-	-
Stage 1	*227	262	-	586	568	-	-	-	-	-	-	-
Stage 2	*745	545	-	470	260	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v28.63		15.52	0.23	1.46
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	941	-	-	85	407	104	940	1095	-	-
HCM Lane V/C Ratio	0.019	-	-	0.151	0.058	0.216	0.13	0.161	-	-
HCM Control Delay (s/veh)	8.9	-	-	54.5	14.4	49	9.4	8.9	-	-
HCM Lane LOS	A	-	-	F	B	E	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.2	0.8	0.4	0.6	-	-

Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon						

Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	177	5	2	115	12	7	2	2	5	5	1
Future Vol, veh/h	14	177	5	2	115	12	7	2	2	5	5	1
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	140	-	-	75	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	87	87	87	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	208	6	2	132	14	8	2	2	6	6	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	146	0	0	214	0	0	384	395	211	386	391	139
Stage 1	-	-	-	-	-	-	244	244	-	144	144	-
Stage 2	-	-	-	-	-	-	140	151	-	242	247	-
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	1436	-	-	1356	-	-	574	542	829	572	545	909
Stage 1	-	-	-	-	-	-	760	704	-	859	778	-
Stage 2	-	-	-	-	-	-	863	773	-	761	702	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1436	-	-	1356	-	-	560	535	829	561	538	909
Mov Cap-2 Maneuver	-	-	-	-	-	-	560	535	-	561	538	-
Stage 1	-	-	-	-	-	-	751	696	-	858	777	-
Stage 2	-	-	-	-	-	-	854	771	-	748	694	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.54			0.12			11.24			11.47		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	590	1436	-	-	1356	-	-	570
HCM Lane V/C Ratio	0.022	0.011	-	-	0.002	-	-	0.023
HCM Control Delay (s/veh)	11.2	7.5	-	-	7.7	-	-	11.5
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

HCM 7th TWSC
6: New Hope Way & S Site Access

08/15/2024

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	11	0	28	0	36
Future Vol, veh/h	0	11	0	28	0	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	12	0	30	0	39

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	50	20	39
Stage 1	20	-	-
Stage 2	30	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	959	1058	1571
Stage 1	1003	-	-
Stage 2	992	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	959	1058	1571
Mov Cap-2 Maneuver	959	-	-
Stage 1	1003	-	-
Stage 2	992	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.44	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1571	-	1058	-	-
HCM Lane V/C Ratio	-	-	0.011	-	-
HCM Control Delay (s/veh)	0	-	8.4	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 7th TWSC
7: New Hope Way & N Site Access

08/15/2024

Intersection

Int Delay, s/veh 3.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	0	28	0	36	0
Future Vol, veh/h	2	0	28	0	36	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	0	30	0	39	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	100	39	39
Stage 1	39	-	-
Stage 2	61	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	899	1032	1571
Stage 1	983	-	-
Stage 2	962	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	881	1032	1571
Mov Cap-2 Maneuver	881	-	-
Stage 1	964	-	-
Stage 2	962	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.1	7.34	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1571	-	881	-	-
HCM Lane V/C Ratio	0.019	-	0.002	-	-
HCM Control Delay (s/veh)	7.3	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0	-	-

APPENDIX F – Background (without site development) Synchro Outputs

Queues

1: Meadows Blvd & Prairie Hawk Dr & Meadows Pkwy

08/16/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	298	230	79	43	198	166	192	674	63	125	386	252
v/c Ratio	0.43	0.30	0.16	0.16	0.48	0.10	0.18	0.49	0.09	0.32	0.27	0.16
Control Delay (s/veh)	24.9	31.7	0.7	22.5	40.8	0.1	6.3	22.9	3.9	12.9	20.1	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.9	31.7	0.7	22.5	40.8	0.1	6.3	22.9	3.9	12.9	20.1	0.2
Queue Length 50th (ft)	65	62	0	17	56	0	11	192	3	32	76	0
Queue Length 95th (ft)	90	93	0	38	87	0	36	251	m16	67	125	0
Internal Link Dist (ft)	963			501			650			1471		
Turn Bay Length (ft)	350		200	240		230	180			410		180
Base Capacity (vph)	917	764	489	443	412	1583	1343	1379	728	537	1409	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.30	0.16	0.10	0.48	0.10	0.14	0.49	0.09	0.23	0.27	0.16

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 7th Signalized Intersection Summary

1: Meadows Blvd & Prairie Hawk Dr & Meadows Pkwy

08/16/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	274	212	73	40	182	153	177	620	58	115	355	232
Future Volume (veh/h)	274	212	73	40	182	153	177	620	58	115	355	232
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	298	230	79	43	198	0	192	674	63	125	386	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	579	493	220	241	273		1176	1735	774	446	1745	
Arrive On Green	0.11	0.14	0.14	0.04	0.08	0.00	0.05	0.49	0.49	0.06	0.49	0.00
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	298	230	79	43	198	0	192	674	63	125	386	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	6.8	5.4	4.1	2.0	4.9	0.0	2.4	10.8	1.9	3.1	5.6	0.0
Cycle Q Clear(g_c), s	6.8	5.4	4.1	2.0	4.9	0.0	2.4	10.8	1.9	3.1	5.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	579	493	220	241	273		1176	1735	774	446	1745	
V/C Ratio(X)	0.52	0.47	0.36	0.18	0.73		0.16	0.39	0.08	0.28	0.22	
Avail Cap(c_a), veh/h	1018	493	220	479	276		1643	1735	774	682	1745	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.7	35.7	35.1	35.6	40.6	0.0	10.2	14.5	12.3	10.8	13.1	0.0
Incr Delay (d2), s/veh	0.7	0.7	1.0	0.3	9.0	0.0	0.1	0.7	0.2	0.3	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	2.3	1.6	0.8	2.4	0.0	0.8	4.0	0.6	1.1	2.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.5	36.4	36.1	36.0	49.6	0.0	10.2	15.2	12.5	11.2	13.4	0.0
LnGrp LOS	C	D	D	D	D		B	B	B	B	B	
Approach Vol, veh/h	607			241			929			511		
Approach Delay, s/veh	34.4			47.2			14.0			12.8		
Approach LOS	C			D			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	50.7	15.6	12.9	11.1	50.5	10.0	18.5				
Change Period (Y+Rc), s	6.0	6.5	6.0	6.0	6.0	6.5	6.0	6.0				
Max Green Setting (Gmax), s	17.0	20.5	21.0	7.0	17.0	20.5	16.0	12.0				
Max Q Clear Time (g_c+l1), s	4.4	7.6	8.8	6.9	5.1	12.8	4.0	7.4				
Green Ext Time (p_c), s	0.5	1.8	0.8	0.0	0.2	2.6	0.0	0.6				

Intersection Summary

HCM 7th Control Delay, s/veh 22.6

HCM 7th LOS C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	39	337	9	2	350	20	0	0	4	0	0	25
Future Vol, veh/h	39	337	9	2	350	20	0	0	4	0	0	25
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	200	-	-	150	-	-	-	-	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	42	366	10	2	380	22	0	0	4	0	0	27

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	402	0	0	376	0	0	-	-	188	-	-	201
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	1153	-	-	1179	-	-	0	0	822	0	0	806
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1153	-	-	1179	-	-	-	-	822	-	-	806
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.83			0.04			9.4			9.62		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	822	1153	-	-	1179	-	-	806
HCM Lane V/C Ratio	0.005	0.037	-	-	0.002	-	-	0.034
HCM Control Delay (s/veh)	9.4	8.2	-	-	8.1	-	-	9.6
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	280	53	31	331	28	40	58	18	35	17	1
Future Vol, veh/h	8	280	53	31	331	28	40	58	18	35	17	1
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	160	-	250	160	-	-	-	-	135	90	-	-
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	9	304	58	34	360	30	43	63	20	38	18	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	390	0	0	362	0	0	578	779	152	643	822	195
Stage 1	-	-	-	-	-	-	322	322	-	442	442	-
Stage 2	-	-	-	-	-	-	257	458	-	201	379	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1165	-	-	1193	-	-	399	326	867	358	308	813
Stage 1	-	-	-	-	-	-	664	650	-	564	574	-
Stage 2	-	-	-	-	-	-	726	566	-	782	613	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1165	-	-	1193	-	-	361	314	867	272	297	813
Mov Cap-2 Maneuver	-	-	-	-	-	-	361	314	-	272	297	-
Stage 1	-	-	-	-	-	-	659	645	-	548	558	-
Stage 2	-	-	-	-	-	-	681	550	-	684	608	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.19			0.64			19.1			19.41		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	332	867	1165	-	-	1193	-	-	272	307
HCM Lane V/C Ratio	0.321	0.023	0.007	-	-	0.028	-	-	0.14	0.064
HCM Control Delay (s/veh)	20.9	9.2	8.1	-	-	8.1	-	-	20.4	17.5
HCM Lane LOS	C	A	A	-	-	A	-	-	C	C
HCM 95th %tile Q(veh)	1.4	0.1	0	-	-	0.1	-	-	0.5	0.2

Intersection

Int Delay, s/veh 1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	7	2	2	101	9	751	27	89	371	8
Future Vol, veh/h	3	0	7	2	2	101	9	751	27	89	371	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	200	-	0	200	-	200	170	-	145
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	0	8	2	2	110	10	816	29	97	403	9

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1026	1462	202	1231	1441	408	412	0	0	846	0	0
Stage 1	597	597	-	836	836	-	-	-	-	-	-	-
Stage 2	429	865	-	395	605	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*319	167	*987	210	173	*894	1293	-	-	963	-	-
Stage 1	*575	569	-	510	508	-	-	-	-	-	-	-
Stage 2	*843	489	-	775	564	-	-	-	-	-	-	-
Platoon blocked, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Cap-1 Maneuver	*246	149	*987	186	154	*894	1293	-	-	963	-	-
Mov Cap-2 Maneuver	*246	149	-	186	154	-	-	-	-	-	-	-
Stage 1	*517	512	-	506	504	-	-	-	-	-	-	-
Stage 2	*731	486	-	691	507	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v12.02		10.25	0.09	1.74
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1293	-	-	246	987	169	894	963	-	-
HCM Lane V/C Ratio	0.008	-	-	0.013	0.008	0.026	0.123	0.1	-	-
HCM Control Delay (s/veh)	7.8	-	-	19.8	8.7	26.9	9.6	9.2	-	-
HCM Lane LOS	A	-	-	C	A	D	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0.1	0.4	0.3	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	108	4	1	99	1	5	2	2	2	0	1
Future Vol, veh/h	4	108	4	1	99	1	5	2	2	2	0	1
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	140	-	-	75	-	-	-	-	-	-	-	-
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	4	117	4	1	108	1	5	2	2	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	109	0	0	122	0	0	238	239	120	238	241	108
Stage 1	-	-	-	-	-	-	128	128	-	110	110	-
Stage 2	-	-	-	-	-	-	110	111	-	127	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	1482	-	-	1466	-	-	716	662	932	717	661	946
Stage 1	-	-	-	-	-	-	875	790	-	895	804	-
Stage 2	-	-	-	-	-	-	895	804	-	877	788	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1482	-	-	1466	-	-	713	660	932	710	658	946
Mov Cap-2 Maneuver	-	-	-	-	-	-	713	660	-	710	658	-
Stage 1	-	-	-	-	-	-	873	788	-	894	803	-
Stage 2	-	-	-	-	-	-	894	803	-	870	786	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.26			0.07			9.94			9.67		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	738	1482	-	-	1466	-	-	774
HCM Lane V/C Ratio	0.013	0.003	-	-	0.001	-	-	0.004
HCM Control Delay (s/veh)	9.9	7.4	-	-	7.5	-	-	9.7
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

HCM 7th TWSC
6: New Hope Way & S Site Access

08/16/2024

Intersection

Int Delay, s/veh 4.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	3	3	4	0	0
Future Vol, veh/h	0	3	3	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	3	4	0	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	12	1	1
Stage 1	1	-	-
Stage 2	11	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	1008	1083	1622
Stage 1	1022	-	-
Stage 2	1012	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	1006	1083	1622
Mov Cap-2 Maneuver	1006	-	-
Stage 1	1020	-	-
Stage 2	1012	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.33	3.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	771	-	1083	-	-
HCM Lane V/C Ratio	0.002	-	0.003	-	-
HCM Control Delay (s/veh)	7.2	0	8.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 7th TWSC
7: New Hope Way & N Site Access

08/16/2024

Intersection

Int Delay, s/veh 0

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 0 0 0 4 0 11

Future Vol, veh/h 0 0 0 4 0 11

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 0 0 0 4 0 12

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 10 6 12 0 - 0

Stage 1 6 - - - - -

Stage 2 4 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 1010 1077 1607 - - -

Stage 1 1017 - - - - -

Stage 2 1019 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 1010 1077 1607 - - -

Mov Cap-2 Maneuver 1010 - - - - -

Stage 1 1017 - - - - -

Stage 2 1019 - - - - -

Approach EB NB SB

HCM Control Delay, s/v 0 0 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1607 - - - -

HCM Lane V/C Ratio - - - - -

HCM Control Delay (s/veh) 0 - 0 - -

HCM Lane LOS A - A - -

HCM 95th %tile Q(veh) 0 - - - -

Queues

1: Meadows Blvd & Prairie Hawk Dr & Meadows Pkwy

08/15/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	292	221	124	88	146	163	84	593	61	217	863	173
v/c Ratio	0.44	0.40	0.30	0.31	0.41	0.10	0.13	0.44	0.08	0.47	0.54	0.11
Control Delay (s/veh)	26.0	37.1	3.3	25.7	40.8	0.1	5.8	23.0	2.9	13.7	21.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	26.0	37.1	3.3	25.7	40.8	0.1	5.8	23.0	2.9	13.7	21.0	0.1
Queue Length 50th (ft)	65	62	0	37	41	0	3	174	1	56	188	0
Queue Length 95th (ft)	90	94	14	67	69	0	m10	227	m12	108	284	0
Internal Link Dist (ft)	963			501			650			1471		
Turn Bay Length (ft)	350		200	240		230	180			410		180
Base Capacity (vph)	849	636	439	332	370	1583	951	1338	757	525	1609	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.35	0.28	0.27	0.39	0.10	0.09	0.44	0.08	0.41	0.54	0.11

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 7th Signalized Intersection Summary

1: Meadows Blvd & Prairie Hawk Dr & Meadows Pkwy

08/15/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	203	114	81	134	150	77	546	56	200	794	159
Future Volume (veh/h)	269	203	114	81	134	150	77	546	56	200	794	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	292	221	124	88	146	0	84	593	61	217	863	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	596	381	170	251	247		727	1658	739	514	1851	
Arrive On Green	0.11	0.11	0.11	0.07	0.07	0.00	0.03	0.47	0.47	0.09	0.52	0.00
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	292	221	124	88	146	0	84	593	61	217	863	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	6.9	5.3	6.8	4.0	3.6	0.0	1.1	9.6	1.9	5.5	13.8	0.0
Cycle Q Clear(g_c), s	6.9	5.3	6.8	4.0	3.6	0.0	1.1	9.6	1.9	5.5	13.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	596	381	170	251	247		727	1658	739	514	1851	
V/C Ratio(X)	0.49	0.58	0.73	0.35	0.59		0.12	0.36	0.08	0.42	0.47	
Avail Cap(c_a), veh/h	922	592	264	348	316		1192	1658	739	657	1851	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.5	38.2	38.9	35.3	40.6	0.0	12.1	15.4	13.3	10.7	13.6	0.0
Incr Delay (d2), s/veh	0.6	1.4	5.9	0.8	2.3	0.0	0.1	0.6	0.2	0.6	0.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	2.3	2.8	1.7	1.6	0.0	0.4	3.6	0.7	1.9	5.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.2	39.6	44.8	36.1	42.9	0.0	12.2	16.0	13.5	11.2	14.5	0.0
LnGrp LOS	C	D	D	D	D		B	B	B	B	B	
Approach Vol, veh/h	637			234			738			1080		
Approach Delay, s/veh	38.1			40.3			15.3			13.8		
Approach LOS	D			D			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	53.4	15.5	12.3	13.8	48.5	12.1	15.7				
Change Period (Y+Rc), s	6.0	6.5	6.0	6.0	6.0	6.5	6.0	6.0				
Max Green Setting (Gmax), s	15.0	24.5	18.0	8.0	15.0	24.5	11.0	15.0				
Max Q Clear Time (g_c+I1), s	3.1	15.8	8.9	5.6	7.5	11.6	6.0	8.8				
Green Ext Time (p_c), s	0.1	3.5	0.7	0.1	0.3	3.1	0.1	0.8				

Intersection Summary

HCM 7th Control Delay, s/veh	22.3
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	407	29	7	324	8	0	0	2	0	0	41
Future Vol, veh/h	23	407	29	7	324	8	0	0	2	0	0	41
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	200	-	-	150	-	-	-	-	-	-	-	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	25	442	32	8	352	9	0	0	2	0	0	45

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	361	0	0	474	0	0	699	884	237	-	-	180
Stage 1	-	-	-	-	-	-	508	508	-	-	-	-
Stage 2	-	-	-	-	-	-	191	376	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	-	-	3.32
Pot Cap-1 Maneuver	1194	-	-	1084	-	-	326	283	764	0	0	831
Stage 1	-	-	-	-	-	-	516	537	-	0	0	-
Stage 2	-	-	-	-	-	-	792	615	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1194	-	-	1084	-	-	300	275	764	-	-	831
Mov Cap-2 Maneuver	-	-	-	-	-	-	300	275	-	-	-	-
Stage 1	-	-	-	-	-	-	505	526	-	-	-	-
Stage 2	-	-	-	-	-	-	744	610	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.4			0.17			9.72			9.58		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	764	1194	-	-	1084	-	-	831
HCM Lane V/C Ratio	0.003	0.021	-	-	0.007	-	-	0.054
HCM Control Delay (s/veh)	9.7	8.1	-	-	8.3	-	-	9.6
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.2

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	348	50	23	316	43	18	48	39	50	22	5
Future Vol, veh/h	11	348	50	23	316	43	18	48	39	50	22	5
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	160	-	250	160	-	-	-	-	135	90	-	-
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	12	378	54	25	343	47	20	52	42	54	24	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	390	0	0	433	0	0	636	842	189	656	873	195
Stage 1	-	-	-	-	-	-	402	402	-	417	417	-
Stage 2	-	-	-	-	-	-	234	440	-	239	457	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1165	-	-	1123	-	-	363	299	821	351	287	813
Stage 1	-	-	-	-	-	-	596	599	-	584	590	-
Stage 2	-	-	-	-	-	-	748	576	-	743	566	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1165	-	-	1123	-	-	319	289	821	265	278	813
Mov Cap-2 Maneuver	-	-	-	-	-	-	319	289	-	265	278	-
Stage 1	-	-	-	-	-	-	590	592	-	571	577	-
Stage 2	-	-	-	-	-	-	697	563	-	636	560	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.22			0.5			16.73			20.46		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	297	821	1165	-	-	1123	-	-	265	316
HCM Lane V/C Ratio	0.242	0.052	0.01	-	-	0.022	-	-	0.205	0.093
HCM Control Delay (s/veh)	20.9	9.6	8.1	-	-	8.3	-	-	22	17.5
HCM Lane LOS	C	A	A	-	-	A	-	-	C	C
HCM 95th %tile Q(veh)	0.9	0.2	0	-	-	0.1	-	-	0.8	0.3

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	2	18	11	8	104	16	564	32	162	822	5
Future Vol, veh/h	11	2	18	11	8	104	16	564	32	162	822	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	200	-	0	200	-	200	170	-	145
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	12	2	20	12	9	113	17	613	35	176	893	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1591	1928	447	1448	1899	307	899	0	0	648	0	0
Stage 1	1246	1246	-	648	648	-	-	-	-	-	-	-
Stage 2	346	683	-	800	1251	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*135	87	*871	189	92	*940	941	-	-	1102	-	-
Stage 1	*271	312	-	603	583	-	-	-	-	-	-	-
Stage 2	*887	560	-	580	310	-	-	-	-	-	-	-
Platoon blocked, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Cap-1 Maneuver	*88	71	*871	148	76	*940	941	-	-	1102	-	-
Mov Cap-2 Maneuver	*88	71	-	148	76	-	-	-	-	-	-	-
Stage 1	*228	263	-	592	572	-	-	-	-	-	-	-
Stage 2	*754	550	-	472	261	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v27.66		15.2	0.23	1.46
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	941	-	-	88	411	106	940	1102	-	-
HCM Lane V/C Ratio	0.018	-	-	0.135	0.053	0.196	0.12	0.16	-	-
HCM Control Delay (s/veh)	8.9	-	-	52	14.3	47.2	9.4	8.9	-	-
HCM Lane LOS	A	-	-	F	B	E	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.2	0.7	0.4	0.6	-	-

Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon						

Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	177	5	2	115	12	7	2	2	5	5	1
Future Vol, veh/h	14	177	5	2	115	12	7	2	2	5	5	1
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	140	-	-	75	-	-	-	-	-	-	-	-
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	15	192	5	2	125	13	8	2	2	5	5	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	138	0	0	198	0	0	358	368	195	360	364	132
Stage 1	-	-	-	-	-	-	226	226	-	136	136	-
Stage 2	-	-	-	-	-	-	132	142	-	224	228	-
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	1446	-	-	1375	-	-	598	561	846	596	564	918
Stage 1	-	-	-	-	-	-	777	717	-	867	784	-
Stage 2	-	-	-	-	-	-	871	779	-	779	715	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1446	-	-	1375	-	-	584	554	846	585	557	918
Mov Cap-2 Maneuver	-	-	-	-	-	-	584	554	-	585	557	-
Stage 1	-	-	-	-	-	-	769	710	-	866	783	-
Stage 2	-	-	-	-	-	-	863	778	-	766	708	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.54			0.12			10.99			11.22		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	613	1446	-	-	1375	-	-	591
HCM Lane V/C Ratio	0.02	0.011	-	-	0.002	-	-	0.02
HCM Control Delay (s/veh)	11	7.5	-	-	7.6	-	-	11.2
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

HCM 7th TWSC
6: New Hope Way & S Site Access

08/15/2024

Intersection

Int Delay, s/veh 1.2

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 0 11 0 28 0 36

Future Vol, veh/h 0 11 0 28 0 36

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 0 12 0 30 0 39

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 50 20 39 0 - 0

Stage 1 20 - - - - -

Stage 2 30 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 959 1058 1571 - - -

Stage 1 1003 - - - - -

Stage 2 992 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 959 1058 1571 - - -

Mov Cap-2 Maneuver 959 - - - - -

Stage 1 1003 - - - - -

Stage 2 992 - - - - -

Approach EB NB SB

HCM Control Delay, s/v 8.44 0 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1571 - 1058 - -

HCM Lane V/C Ratio - - 0.011 - -

HCM Control Delay (s/veh) 0 - 8.4 - -

HCM Lane LOS A - A - -

HCM 95th %tile Q(veh) 0 - 0 - -

HCM 7th TWSC
7: New Hope Way & N Site Access

08/15/2024

Intersection						
Int Delay, s/veh	3.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	0	28	0	36	0
Future Vol, veh/h	2	0	28	0	36	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	0	30	0	39	0

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	100	39	39	0	-	0
Stage 1	39	-	-	-	-	-
Stage 2	61	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	899	1032	1571	-	-	-
Stage 1	983	-	-	-	-	-
Stage 2	962	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	881	1032	1571	-	-	-
Mov Cap-2 Maneuver	881	-	-	-	-	-
Stage 1	964	-	-	-	-	-
Stage 2	962	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.1	7.34	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1571	-	881	-	-
HCM Lane V/C Ratio	0.019	-	0.002	-	-
HCM Control Delay (s/veh)	7.3	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0	-	-

Queues

1: Meadows Blvd & Prairie Hawk Dr & Meadows Pkwy

08/15/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	298	254	79	43	218	166	192	745	63	125	426	252
v/c Ratio	0.42	0.32	0.16	0.16	0.50	0.10	0.19	0.55	0.09	0.35	0.31	0.16
Control Delay (s/veh)	24.3	31.4	0.7	22.0	40.5	0.1	5.1	23.0	4.6	13.8	20.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.3	31.4	0.7	22.0	40.5	0.1	5.1	23.0	4.6	13.8	20.9	0.2
Queue Length 50th (ft)	64	68	0	17	61	0	5	231	4	32	86	0
Queue Length 95th (ft)	89	101	0	37	95	0	m20	m269	m12	68	140	0
Internal Link Dist (ft)	963			501			650			1471		
Turn Bay Length (ft)	350		200	240		230	180			410		180
Base Capacity (vph)	927	789	499	448	438	1583	1286	1353	717	504	1382	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.32	0.16	0.10	0.50	0.10	0.15	0.55	0.09	0.25	0.31	0.16

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 7th Signalized Intersection Summary

1: Meadows Blvd & Prairie Hawk Dr & Meadows Pkwy

08/15/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	274	234	73	40	201	153	177	685	58	115	392	232
Future Volume (veh/h)	274	234	73	40	201	153	177	685	58	115	392	232
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	298	254	79	43	218	0	192	745	63	125	426	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	567	496	221	236	276		1130	1732	773	418	1741	
Arrive On Green	0.11	0.14	0.14	0.04	0.08	0.00	0.05	0.49	0.49	0.06	0.49	0.00
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	298	254	79	43	218	0	192	745	63	125	426	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	6.8	6.0	4.1	2.0	5.4	0.0	2.4	12.2	1.9	3.1	6.3	0.0
Cycle Q Clear(g_c), s	6.8	6.0	4.1	2.0	5.4	0.0	2.4	12.2	1.9	3.1	6.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	567	496	221	236	276		1130	1732	773	418	1741	
V/C Ratio(X)	0.53	0.51	0.36	0.18	0.79		0.17	0.43	0.08	0.30	0.24	
Avail Cap(c_a), veh/h	1006	496	221	473	276		1597	1732	773	654	1741	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.7	35.9	35.1	35.5	40.8	0.0	10.3	15.0	12.3	11.1	13.3	0.0
Incr Delay (d2), s/veh	0.8	0.9	1.0	0.4	14.2	0.0	0.1	0.8	0.2	0.4	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	2.5	1.5	0.8	2.8	0.0	0.8	4.6	0.6	1.1	2.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.5	36.8	36.0	35.9	54.9	0.0	10.3	15.7	12.5	11.5	13.6	0.0
LnGrp LOS	C	D	D	D	D		B	B	B	B	B	
Approach Vol, veh/h	631			261			1000			551		
Approach Delay, s/veh	34.7			51.8			14.5			13.1		
Approach LOS	C			D			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	50.6	15.6	13.0	11.1	50.4	10.0	18.6				
Change Period (Y+Rc), s	6.0	6.5	6.0	6.0	6.0	6.5	6.0	6.0				
Max Green Setting (Gmax), s	17.0	20.5	21.0	7.0	17.0	20.5	16.0	12.0				
Max Q Clear Time (g_c+l1), s	4.4	8.3	8.8	7.4	5.1	14.2	4.0	8.0				
Green Ext Time (p_c), s	0.5	2.0	0.8	0.0	0.2	2.5	0.0	0.6				

Intersection Summary

HCM 7th Control Delay, s/veh 23.4

HCM 7th LOS C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	39	359	9	2	369	20	0	0	4	0	0	25
Future Vol, veh/h	39	359	9	2	369	20	0	0	4	0	0	25
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	200	-	-	150	-	-	-	-	-	-	-	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	42	390	10	2	401	22	0	0	4	0	0	27
Major/Minor	Major1		Major2			Minor1			Minor2			
Conflicting Flow All	423	0	0	400	0	0	685	907	200	-	-	211
Stage 1	-	-	-	-	-	-	480	480	-	-	-	-
Stage 2	-	-	-	-	-	-	205	427	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	-	-	3.32
Pot Cap-1 Maneuver	1133	-	-	1155	-	-	334	274	808	0	0	794
Stage 1	-	-	-	-	-	-	536	553	-	0	0	-
Stage 2	-	-	-	-	-	-	778	584	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1133	-	-	1155	-	-	310	263	808	-	-	794
Mov Cap-2 Maneuver	-	-	-	-	-	-	310	263	-	-	-	-
Stage 1	-	-	-	-	-	-	516	532	-	-	-	-
Stage 2	-	-	-	-	-	-	750	582	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s/v	0.8		0.04			9.48			9.69			
HCM LOS						A			A			
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	808	1133	-	-	1155	-	-	794				
HCM Lane V/C Ratio	0.005	0.037	-	-	0.002	-	-	0.034				
HCM Control Delay (s/veh)	9.5	8.3	-	-	8.1	-	-	9.7				
HCM Lane LOS	A	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1				

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	302	53	31	350	28	40	58	18	35	17	1
Future Vol, veh/h	8	302	53	31	350	28	40	58	18	35	17	1
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	160	-	250	160	-	-	-	-	135	90	-	-
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	9	328	58	34	380	30	43	63	20	38	18	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	411	0	0	386	0	0	613	824	164	676	866	205
Stage 1	-	-	-	-	-	-	346	346	-	463	463	-
Stage 2	-	-	-	-	-	-	267	478	-	213	403	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1144	-	-	1169	-	-	377	307	852	339	290	801
Stage 1	-	-	-	-	-	-	643	634	-	548	562	-
Stage 2	-	-	-	-	-	-	716	554	-	769	598	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1144	-	-	1169	-	-	340	296	852	253	279	801
Mov Cap-2 Maneuver	-	-	-	-	-	-	340	296	-	253	279	-
Stage 1	-	-	-	-	-	-	638	629	-	533	546	-
Stage 2	-	-	-	-	-	-	671	538	-	671	593	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.18			0.62			20.37			20.56		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	312	852	1144	-	-	1169	-	-	253	290
HCM Lane V/C Ratio	0.341	0.023	0.008	-	-	0.029	-	-	0.15	0.068
HCM Control Delay (s/veh)	22.4	9.3	8.2	-	-	8.2	-	-	21.7	18.3
HCM Lane LOS	C	A	A	-	-	A	-	-	C	C
HCM 95th %tile Q(veh)	1.5	0.1	0	-	-	0.1	-	-	0.5	0.2

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	7	2	2	101	9	816	27	89	408	8
Future Vol, veh/h	3	0	7	2	2	101	9	816	27	89	408	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	200	-	0	200	-	200	170	-	145
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	0	8	2	2	110	10	887	29	97	443	9

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1101	1573	222	1322	1552	443	452	0	0	916	0	0
Stage 1	637	637	-	907	907	-	-	-	-	-	-	-
Stage 2	464	936	-	415	646	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*274	139	*987	175	143	*871	1246	-	-	924	-	-
Stage 1	*541	544	-	485	485	-	-	-	-	-	-	-
Stage 2	*821	468	-	752	539	-	-	-	-	-	-	-
Platoon blocked, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Cap-1 Maneuver	*209	123	*987	154	127	*871	1246	-	-	924	-	-
Mov Cap-2 Maneuver	*209	123	-	154	127	-	-	-	-	-	-	-
Stage 1	*485	487	-	481	482	-	-	-	-	-	-	-
Stage 2	*709	464	-	668	482	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v12.82		10.57	0.08	1.65
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1246	-	-	209	987	139	871	924	-	-
HCM Lane V/C Ratio	0.008	-	-	0.016	0.008	0.031	0.126	0.105	-	-
HCM Control Delay (s/veh)	7.9	-	-	22.5	8.7	31.6	9.7	9.4	-	-
HCM Lane LOS	A	-	-	C	A	D	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0.1	0.4	0.3	-	-

Notes												
~: Volume exceeds capacity			\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon			

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	108	4	1	99	1	5	2	2	2	0	1
Future Vol, veh/h	4	108	4	1	99	1	5	2	2	2	0	1
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	140	-	-	75	-	-	-	-	-	-	-	-
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	4	117	4	1	108	1	5	2	2	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	109	0	0	122	0	0	238	239	120	238	241	108
Stage 1	-	-	-	-	-	-	128	128	-	110	110	-
Stage 2	-	-	-	-	-	-	110	111	-	127	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	1482	-	-	1466	-	-	716	662	932	717	661	946
Stage 1	-	-	-	-	-	-	875	790	-	895	804	-
Stage 2	-	-	-	-	-	-	895	804	-	877	788	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1482	-	-	1466	-	-	713	660	932	710	658	946
Mov Cap-2 Maneuver	-	-	-	-	-	-	713	660	-	710	658	-
Stage 1	-	-	-	-	-	-	873	788	-	894	803	-
Stage 2	-	-	-	-	-	-	894	803	-	870	786	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.26			0.07			9.94			9.67		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	738	1482	-	-	1466	-	-	774
HCM Lane V/C Ratio	0.013	0.003	-	-	0.001	-	-	0.004
HCM Control Delay (s/veh)	9.9	7.4	-	-	7.5	-	-	9.7
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

HCM 7th TWSC
6: New Hope Way & S Site Access

08/15/2024

Intersection						
Int Delay, s/veh	4.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	3	3	4	0	0
Future Vol, veh/h	0	3	3	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	3	4	0	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	12	1	1
Stage 1	1	-	-
Stage 2	11	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	1008	1083	1622
Stage 1	1022	-	-
Stage 2	1012	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	1006	1083	1622
Mov Cap-2 Maneuver	1006	-	-
Stage 1	1020	-	-
Stage 2	1012	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.33	3.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	771	-	1083	-	-
HCM Lane V/C Ratio	0.002	-	0.003	-	-
HCM Control Delay (s/veh)	7.2	0	8.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 7th TWSC
7: New Hope Way & N Site Access

08/15/2024

Intersection

Int Delay, s/veh 0

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 0 0 0 4 0 12

Future Vol, veh/h 0 0 0 4 0 12

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 0 0 0 4 0 13

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 11 7 13 0 - 0

Stage 1 7 - - - - -

Stage 2 4 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 1009 1076 1605 - - -

Stage 1 1017 - - - - -

Stage 2 1019 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 1009 1076 1605 - - -

Mov Cap-2 Maneuver 1009 - - - - -

Stage 1 1017 - - - - -

Stage 2 1019 - - - - -

Approach EB NB SB

HCM Control Delay, s/v 0 0 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1605 - - - -

HCM Lane V/C Ratio - - - - -

HCM Control Delay (s/veh) 0 - 0 - -

HCM Lane LOS A - A - -

HCM 95th %tile Q(veh) 0 - - - -

Queues

1: Meadows Blvd & Prairie Hawk Dr & Meadows Pkwy

08/15/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	292	247	124	88	163	163	84	662	61	217	963	173
v/c Ratio	0.43	0.43	0.30	0.31	0.44	0.10	0.15	0.50	0.08	0.50	0.60	0.11
Control Delay (s/veh)	25.7	37.3	3.2	25.4	41.0	0.1	6.3	24.8	2.7	14.8	22.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.7	37.3	3.2	25.4	41.0	0.1	6.3	24.8	2.7	14.8	22.5	0.1
Queue Length 50th (ft)	65	70	0	37	46	0	4	201	1	57	221	0
Queue Length 95th (ft)	89	104	14	67	75	0	m9	261	m9	108	327	0
Internal Link Dist (ft)	963			501			650			1471		
Turn Bay Length (ft)	350		200	240		230	180			410		180
Base Capacity (vph)	855	640	440	334	382	1583	875	1322	751	491	1593	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.39	0.28	0.26	0.43	0.10	0.10	0.50	0.08	0.44	0.60	0.11

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 7th Signalized Intersection Summary

1: Meadows Blvd & Prairie Hawk Dr & Meadows Pkwy

08/15/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	227	114	81	150	150	77	609	56	200	886	159
Future Volume (veh/h)	269	227	114	81	150	150	77	609	56	200	886	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	292	247	124	88	163	0	84	662	61	217	963	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	586	385	172	243	250		657	1654	738	484	1848	
Arrive On Green	0.11	0.11	0.11	0.07	0.07	0.00	0.03	0.47	0.47	0.09	0.52	0.00
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	292	247	124	88	163	0	84	662	61	217	963	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	6.8	6.0	6.8	4.0	4.0	0.0	1.1	11.0	1.9	5.5	16.1	0.0
Cycle Q Clear(g_c), s	6.8	6.0	6.8	4.0	4.0	0.0	1.1	11.0	1.9	5.5	16.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	586	385	172	243	250		657	1654	738	484	1848	
V/C Ratio(X)	0.50	0.64	0.72	0.36	0.65		0.13	0.40	0.08	0.45	0.52	
Avail Cap(c_a), veh/h	912	592	264	340	316		1122	1654	738	627	1848	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.5	38.5	38.8	35.2	40.8	0.0	12.4	15.8	13.4	11.0	14.2	0.0
Incr Delay (d2), s/veh	0.7	1.8	5.7	0.9	3.2	0.0	0.1	0.7	0.2	0.6	1.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	2.6	2.8	1.7	1.8	0.0	0.4	4.2	0.7	1.9	5.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.1	40.3	44.5	36.1	43.9	0.0	12.5	16.5	13.6	11.6	15.3	0.0
LnGrp LOS	C	D	D	D	D		B	B	B	B	B	
Approach Vol, veh/h	663			251			807			1180		
Approach Delay, s/veh	38.4			41.2			15.9			14.6		
Approach LOS	D			D			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	53.3	15.5	12.3	13.8	48.4	12.1	15.7				
Change Period (Y+Rc), s	6.0	6.5	6.0	6.0	6.0	6.5	6.0	6.0				
Max Green Setting (Gmax), s	15.0	24.5	18.0	8.0	15.0	24.5	11.0	15.0				
Max Q Clear Time (g_c+I1), s	3.1	18.1	8.8	6.0	7.5	13.0	6.0	8.8				
Green Ext Time (p_c), s	0.1	3.2	0.7	0.1	0.3	3.3	0.1	0.9				

Intersection Summary

HCM 7th Control Delay, s/veh	22.7
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	431	29	7	340	8	0	0	2	0	0	41
Future Vol, veh/h	23	431	29	7	340	8	0	0	2	0	0	41
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	200	-	-	150	-	-	-	-	-	-	-	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	25	468	32	8	370	9	0	0	2	0	0	45

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	378	0	0	500	0	0	734	928	250	-	-	189
Stage 1	-	-	-	-	-	-	534	534	-	-	-	-
Stage 2	-	-	-	-	-	-	200	393	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	-	-	3.32
Pot Cap-1 Maneuver	1177	-	-	1060	-	-	308	267	750	0	0	821
Stage 1	-	-	-	-	-	-	497	523	-	0	0	-
Stage 2	-	-	-	-	-	-	783	604	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1177	-	-	1060	-	-	283	259	750	-	-	821
Mov Cap-2 Maneuver	-	-	-	-	-	-	283	259	-	-	-	-
Stage 1	-	-	-	-	-	-	487	511	-	-	-	-
Stage 2	-	-	-	-	-	-	735	600	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.39			0.17			9.82			9.64		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	750	1177	-	-	1060	-	-	821
HCM Lane V/C Ratio	0.003	0.021	-	-	0.007	-	-	0.054
HCM Control Delay (s/veh)	9.8	8.1	-	-	8.4	-	-	9.6
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.2

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	372	50	23	332	43	18	48	39	50	22	5
Future Vol, veh/h	11	372	50	23	332	43	18	48	39	50	22	5
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	160	-	250	160	-	-	-	-	135	90	-	-
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	12	404	54	25	361	47	20	52	42	54	24	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	408	0	0	459	0	0	671	886	202	686	917	204
Stage 1	-	-	-	-	-	-	428	428	-	434	434	-
Stage 2	-	-	-	-	-	-	242	458	-	252	483	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1148	-	-	1099	-	-	342	282	805	333	271	803
Stage 1	-	-	-	-	-	-	575	583	-	570	579	-
Stage 2	-	-	-	-	-	-	740	566	-	730	551	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1148	-	-	1099	-	-	300	273	805	249	262	803
Mov Cap-2 Maneuver	-	-	-	-	-	-	300	273	-	249	262	-
Stage 1	-	-	-	-	-	-	569	577	-	557	566	-
Stage 2	-	-	-	-	-	-	688	553	-	622	545	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.21	0.48	17.6	21.68
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	280	805	1148	-	-	1099	-	-	249	299
HCM Lane V/C Ratio	0.257	0.053	0.01	-	-	0.023	-	-	0.219	0.098
HCM Control Delay (s/veh)	22.3	9.7	8.2	-	-	8.4	-	-	23.5	18.3
HCM Lane LOS	C	A	A	-	-	A	-	-	C	C
HCM 95th %tile Q(veh)	1	0.2	0	-	-	0.1	-	-	0.8	0.3

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	2	18	11	8	104	16	627	32	162	914	5
Future Vol, veh/h	11	2	18	11	8	104	16	627	32	162	914	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	200	-	0	200	-	200	170	-	145
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	12	2	20	12	9	113	17	682	35	176	993	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1726	2097	497	1566	2067	341	999	0	0	716	0	0
Stage 1	1346	1346	-	716	716	-	-	-	-	-	-	-
Stage 2	380	751	-	850	1351	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*104	64	*847	154	67	*917	873	-	-	1064	-	-
Stage 1	*240	283	-	579	562	-	-	-	-	-	-	-
Stage 2	*865	539	-	573	281	-	-	-	-	-	-	-
Platoon blocked, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Cap-1 Maneuver	*65	52	*847	119	55	*917	873	-	-	1064	-	-
Mov Cap-2 Maneuver	*65	52	-	119	55	-	-	-	-	-	-	-
Stage 1	*200	236	-	567	551	-	-	-	-	-	-	-
Stage 2	*732	528	-	463	234	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v36.38		18.05	0.22	1.36
HCM LOS	E	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	873	-	-	65	335	80	917	1064	-	-
HCM Lane V/C Ratio	0.02	-	-	0.184	0.065	0.258	0.123	0.165	-	-
HCM Control Delay (s/veh)	9.2	-	-	72.5	16.5	65	9.5	9.1	-	-
HCM Lane LOS	A	-	-	F	C	F	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.2	0.9	0.4	0.6	-	-

Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon						

Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	177	5	2	115	12	7	2	2	5	5	1
Future Vol, veh/h	14	177	5	2	115	12	7	2	2	5	5	1
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	140	-	-	75	-	-	-	-	-	-	-	-
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	15	192	5	2	125	13	8	2	2	5	5	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	138	0	0	198	0	0	358	368	195	360	364	132
Stage 1	-	-	-	-	-	-	226	226	-	136	136	-
Stage 2	-	-	-	-	-	-	132	142	-	224	228	-
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	1446	-	-	1375	-	-	598	561	846	596	564	918
Stage 1	-	-	-	-	-	-	777	717	-	867	784	-
Stage 2	-	-	-	-	-	-	871	779	-	779	715	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1446	-	-	1375	-	-	584	554	846	585	557	918
Mov Cap-2 Maneuver	-	-	-	-	-	-	584	554	-	585	557	-
Stage 1	-	-	-	-	-	-	769	710	-	866	783	-
Stage 2	-	-	-	-	-	-	863	778	-	766	708	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.54			0.12			10.99			11.22		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	613	1446	-	-	1375	-	-	591
HCM Lane V/C Ratio	0.02	0.011	-	-	0.002	-	-	0.02
HCM Control Delay (s/veh)	11	7.5	-	-	7.6	-	-	11.2
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

HCM 7th TWSC
6: New Hope Way & S Site Access

08/15/2024

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
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Lane Configurations 

Traffic Vol, veh/h	0	12	0	31	0	40
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Future Vol, veh/h	0	12	0	31	0	40
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Conflicting Peds, #/hr	0	0	0	0	0	0
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Sign Control	Stop	Stop	Free	Free	Free	Free
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RT Channelized	-	None	-	None	-	None
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Storage Length	0	-	-	-	-	-
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Veh in Median Storage, #	0	-	-	0	0	-
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Grade, %	0	-	-	0	0	-
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Peak Hour Factor	92	92	92	92	92	92
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Heavy Vehicles, %	2	2	2	2	2	2
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Mvmt Flow	0	13	0	34	0	43
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Major/Minor	Minor2	Major1	Major2
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Conflicting Flow All	55	22	43	0	-	0
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Stage 1	22	-	-	-	-	-
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Stage 2	34	-	-	-	-	-
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Critical Hdwy	6.42	6.22	4.12	-	-	-
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Critical Hdwy Stg 1	5.42	-	-	-	-	-
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Critical Hdwy Stg 2	5.42	-	-	-	-	-
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Follow-up Hdwy	3.518	3.318	2.218	-	-	-
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Pot Cap-1 Maneuver	952	1055	1565	-	-	-
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Stage 1	1001	-	-	-	-	-
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Stage 2	989	-	-	-	-	-
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Platoon blocked, %				-	-	-
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Mov Cap-1 Maneuver	952	1055	1565	-	-	-
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Mov Cap-2 Maneuver	952	-	-	-	-	-
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Stage 1	1001	-	-	-	-	-
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Stage 2	989	-	-	-	-	-
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Approach	EB	NB	SB
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HCM Control Delay, s/v	8.45	0	0
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HCM LOS	A		
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Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
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Capacity (veh/h)	1565	-	1055	-	-
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HCM Lane V/C Ratio	-	-	0.012	-	-
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HCM Control Delay (s/veh)	0	-	8.5	-	-
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HCM Lane LOS	A	-	A	-	-
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HCM 95th %tile Q(veh)	0	-	0	-	-
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HCM 7th TWSC
7: New Hope Way & N Site Access

08/15/2024

Intersection						
Int Delay, s/veh	3.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	0	31	0	40	0
Future Vol, veh/h	2	0	31	0	40	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	0	34	0	43	0

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	111	43	43	0	-	0
Stage 1	43	-	-	-	-	-
Stage 2	67	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	886	1027	1565	-	-	-
Stage 1	979	-	-	-	-	-
Stage 2	955	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	867	1027	1565	-	-	-
Mov Cap-2 Maneuver	867	-	-	-	-	-
Stage 1	958	-	-	-	-	-
Stage 2	955	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.16	7.35	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1565	-	867	-	-
HCM Lane V/C Ratio	0.022	-	0.003	-	-
HCM Control Delay (s/veh)	7.4	0	9.2	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0	-	-

APPENDIX G – Future (with site development) Synchro Outputs

Queues

1: Meadows Blvd & Prairie Hawk Dr & Meadows Pkwy

08/15/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	298	257	79	43	198	166	199	691	63	176	399	252
v/c Ratio	0.43	0.34	0.16	0.16	0.48	0.10	0.20	0.52	0.09	0.44	0.28	0.16
Control Delay (s/veh)	24.8	32.1	0.7	22.5	40.8	0.1	4.8	22.5	5.6	14.5	20.3	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.8	32.1	0.7	22.5	40.8	0.1	4.8	22.5	5.6	14.5	20.3	0.2
Queue Length 50th (ft)	65	70	0	17	56	0	6	217	5	46	79	0
Queue Length 95th (ft)	90	103	0	38	87	0	m18	m248	m11	91	130	0
Internal Link Dist (ft)	963			501			650			1471		
Turn Bay Length (ft)	350		200	240		230	180			410		180
Base Capacity (vph)	917	765	489	440	412	1583	1324	1322	705	517	1405	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.34	0.16	0.10	0.48	0.10	0.15	0.52	0.09	0.34	0.28	0.16

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 7th Signalized Intersection Summary

1: Meadows Blvd & Prairie Hawk Dr & Meadows Pkwy

08/15/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	274	236	73	40	182	153	183	636	58	162	367	232
Future Volume (veh/h)	274	236	73	40	182	153	183	636	58	162	367	232
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	298	257	79	43	198	0	199	691	63	176	399	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	579	493	220	234	273		1164	1670	745	456	1736	
Arrive On Green	0.11	0.14	0.14	0.04	0.08	0.00	0.06	0.47	0.47	0.07	0.49	0.00
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	298	257	79	43	198	0	199	691	63	176	399	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	6.8	6.0	4.1	2.0	4.9	0.0	2.6	11.5	2.0	4.5	5.8	0.0
Cycle Q Clear(g_c), s	6.8	6.0	4.1	2.0	4.9	0.0	2.6	11.5	2.0	4.5	5.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	579	493	220	234	273		1164	1670	745	456	1736	
V/C Ratio(X)	0.52	0.52	0.36	0.18	0.73		0.17	0.41	0.08	0.39	0.23	
Avail Cap(c_a), veh/h	1018	493	220	471	276		1623	1670	745	659	1736	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.7	36.0	35.1	35.6	40.6	0.0	10.8	15.7	13.2	11.3	13.3	0.0
Incr Delay (d2), s/veh	0.7	1.0	1.0	0.4	9.0	0.0	0.1	0.8	0.2	0.5	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	2.6	1.6	0.8	2.4	0.0	0.9	4.3	0.7	1.6	2.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.5	37.0	36.1	36.0	49.6	0.0	10.9	16.4	13.4	11.9	13.6	0.0
LnGrp LOS	C	D	D	D	D		B	B	B	B	B	
Approach Vol, veh/h	634			241			953			575		
Approach Delay, s/veh	34.7			47.2			15.1			13.0		
Approach LOS	C			D			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	50.5	15.6	12.9	12.7	48.8	10.0	18.5				
Change Period (Y+Rc), s	6.0	6.5	6.0	6.0	6.0	6.5	6.0	6.0				
Max Green Setting (Gmax), s	17.0	20.5	21.0	7.0	17.0	20.5	16.0	12.0				
Max Q Clear Time (g_c+I1), s	4.6	7.8	8.8	6.9	6.5	13.5	4.0	8.0				
Green Ext Time (p_c), s	0.5	1.9	0.8	0.0	0.3	2.5	0.0	0.6				

Intersection Summary

HCM 7th Control Delay, s/veh 23.0

HCM 7th LOS C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	39	337	80	14	350	20	0	0	7	0	0	25
Future Vol, veh/h	39	337	80	14	350	20	0	0	7	0	0	25
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	200	-	-	150	-	-	-	-	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	42	366	87	15	380	22	0	0	8	0	0	27
Major/Minor	Major1		Major2			Minor1			Minor2			
Conflicting Flow All	402	0	0	453	0	0	-	-	227	-	-	201
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	1153	-	-	1104	-	-	0	0	776	0	0	806
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1153	-	-	1104	-	-	-	-	776	-	-	806
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s/v	0.7		0.3			9.68			9.62			
HCM LOS						A			A			
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	776	1153	-	-	1104	-	-	806				
HCM Lane V/C Ratio	0.01	0.037	-	-	0.014	-	-	0.034				
HCM Control Delay (s/veh)	9.7	8.2	-	-	8.3	-	-	9.6				
HCM Lane LOS	A	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1				

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	283	53	31	343	28	40	58	18	35	17	1
Future Vol, veh/h	8	283	53	31	343	28	40	58	18	35	17	1
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	160	-	250	160	-	-	-	-	135	90	-	-
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	9	308	58	34	373	30	43	63	20	38	18	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	403	0	0	365	0	0	588	796	154	658	838	202
Stage 1	-	-	-	-	-	-	325	325	-	455	455	-
Stage 2	-	-	-	-	-	-	263	471	-	203	383	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1152	-	-	1190	-	-	392	318	865	349	301	806
Stage 1	-	-	-	-	-	-	661	648	-	554	567	-
Stage 2	-	-	-	-	-	-	719	558	-	780	611	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1152	-	-	1190	-	-	355	307	865	264	290	806
Mov Cap-2 Maneuver	-	-	-	-	-	-	355	307	-	264	290	-
Stage 1	-	-	-	-	-	-	656	643	-	538	551	-
Stage 2	-	-	-	-	-	-	675	542	-	682	606	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.19			0.63			19.51			19.87		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	325	865	1152	-	-	1190	-	-	264	301
HCM Lane V/C Ratio	0.328	0.023	0.008	-	-	0.028	-	-	0.144	0.065
HCM Control Delay (s/veh)	21.4	9.3	8.1	-	-	8.1	-	-	20.9	17.8
HCM Lane LOS	C	A	A	-	-	A	-	-	C	C
HCM 95th %tile Q(veh)	1.4	0.1	0	-	-	0.1	-	-	0.5	0.2

Intersection

Int Delay, s/veh 1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	7	7	2	123	9	751	45	101	371	8
Future Vol, veh/h	3	0	7	7	2	123	9	751	45	101	371	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	200	-	0	200	-	200	170	-	145
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	0	8	8	2	134	10	816	49	110	403	9

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1052	1508	202	1257	1467	408	412	0	0	865	0	0
Stage 1	623	623	-	836	836	-	-	-	-	-	-	-
Stage 2	429	885	-	421	632	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*302	155	*987	199	165	*894	1293	-	-	944	-	-
Stage 1	*553	553	-	510	508	-	-	-	-	-	-	-
Stage 2	*843	478	-	745	547	-	-	-	-	-	-	-
Platoon blocked, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Cap-1 Maneuver	*223	136	*987	173	145	*894	1293	-	-	944	-	-
Mov Cap-2 Maneuver	*223	136	-	173	145	-	-	-	-	-	-	-
Stage 1	*488	489	-	506	504	-	-	-	-	-	-	-
Stage 2	*708	474	-	654	484	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s/v	12.5		10.98		0.09		1.96	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1293	-	-	223	987	166	894	944	-	-
HCM Lane V/C Ratio	0.008	-	-	0.015	0.008	0.059	0.15	0.116	-	-
HCM Control Delay (s/veh)	7.8	-	-	21.4	8.7	28	9.7	9.3	-	-
HCM Lane LOS	A	-	-	C	A	D	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0.2	0.5	0.4	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	108	4	1	100	7	5	2	2	4	0	27
Future Vol, veh/h	34	108	4	1	100	7	5	2	2	4	0	27
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	140	-	-	75	-	-	-	-	-	-	-	-
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	37	117	4	1	109	8	5	2	2	4	0	29
Major/Minor	Major1		Major2			Minor1			Minor2			
Conflicting Flow All	116	0	0	122	0	0	304	312	120	307	310	112
Stage 1	-	-	-	-	-	-	193	193	-	115	115	-
Stage 2	-	-	-	-	-	-	111	118	-	192	196	-
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	1472	-	-	1466	-	-	648	603	932	645	604	940
Stage 1	-	-	-	-	-	-	808	740	-	890	801	-
Stage 2	-	-	-	-	-	-	894	798	-	809	739	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1472	-	-	1466	-	-	612	587	932	625	589	940
Mov Cap-2 Maneuver	-	-	-	-	-	-	612	587	-	625	589	-
Stage 1	-	-	-	-	-	-	788	722	-	889	800	-
Stage 2	-	-	-	-	-	-	866	797	-	785	720	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s/v	1.75		0.07			10.57			9.24			
HCM LOS						B			A			
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	656	1472	-	-	1466	-	-	883				
HCM Lane V/C Ratio	0.015	0.025	-	-	0.001	-	-	0.038				
HCM Control Delay (s/veh)	10.6	7.5	-	-	7.5	-	-	9.2				
HCM Lane LOS	B	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1				

HCM 7th TWSC
6: New Hope Way & S Site Access

08/15/2024

Intersection

Int Delay, s/veh 4.1

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 3 31 39 4 0 65

Future Vol, veh/h 3 31 39 4 0 65

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 3 34 42 4 0 71

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 124 35 71 0 - 0

Stage 1 35 - - - - -

Stage 2 89 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 870 1037 1530 - - -

Stage 1 987 - - - - -

Stage 2 934 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 846 1037 1530 - - -

Mov Cap-2 Maneuver 846 - - - - -

Stage 1 960 - - - - -

Stage 2 934 - - - - -

Approach EB NB SB

HCM Control Delay, s/v 8.67 6.73 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1526 - 1017 - -

HCM Lane V/C Ratio 0.028 - 0.036 - -

HCM Control Delay (s/veh) 7.4 0 8.7 - -

HCM Lane LOS A A A - -

HCM 95th %tile Q(veh) 0.1 - 0.1 - -

HCM 7th TWSC
7: New Hope Way & N Site Access

08/15/2024

Intersection

Int Delay, s/veh 0

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 0 0 0 7 65 29

Future Vol, veh/h 0 0 0 7 65 29

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 0 0 0 8 71 32

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 94 86 102 0 - 0

Stage 1 86 - - - - -

Stage 2 8 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 906 972 1490 - - -

Stage 1 937 - - - - -

Stage 2 1015 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 906 972 1490 - - -

Mov Cap-2 Maneuver 906 - - - - -

Stage 1 937 - - - - -

Stage 2 1015 - - - - -

Approach EB NB SB

HCM Control Delay, s/v 0 0 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1490 - - - - -

HCM Lane V/C Ratio - - - - -

HCM Control Delay (s/veh) 0 - 0 - -

HCM Lane LOS A - A - -

HCM 95th %tile Q(veh) 0 - - - -

Queues

1: Meadows Blvd & Prairie Hawk Dr & Meadows Pkwy

08/15/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	292	238	124	88	147	163	120	688	61	248	879	173
v/c Ratio	0.43	0.43	0.30	0.31	0.40	0.10	0.20	0.52	0.08	0.58	0.59	0.11
Control Delay (s/veh)	25.9	37.4	3.2	25.7	40.7	0.1	6.7	25.1	1.9	16.2	23.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.9	37.4	3.2	25.7	40.7	0.1	6.7	25.1	1.9	16.2	23.0	0.1
Queue Length 50th (ft)	65	67	0	37	42	0	5	202	0	65	195	0
Queue Length 95th (ft)	89	100	14	67	69	0	m18	268	m8	124	295	0
Internal Link Dist (ft)	963			501			650			1471		
Turn Bay Length (ft)	350		200	240		230	180			410		180
Base Capacity (vph)	851	637	439	331	373	1583	912	1311	747	486	1496	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.37	0.28	0.27	0.39	0.10	0.13	0.52	0.08	0.51	0.59	0.11

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 7th Signalized Intersection Summary

1: Meadows Blvd & Prairie Hawk Dr & Meadows Pkwy

08/15/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	219	114	81	135	150	110	633	56	228	809	159
Future Volume (veh/h)	269	219	114	81	135	150	110	633	56	228	809	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	292	238	124	88	147	0	120	688	61	248	879	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	597	383	171	245	249		730	1618	722	484	1817	
Arrive On Green	0.11	0.11	0.11	0.07	0.07	0.00	0.04	0.46	0.46	0.10	0.51	0.00
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	292	238	124	88	147	0	120	688	61	248	879	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	6.8	5.8	6.8	4.0	3.6	0.0	1.6	11.8	2.0	6.4	14.5	0.0
Cycle Q Clear(g_c), s	6.8	5.8	6.8	4.0	3.6	0.0	1.6	11.8	2.0	6.4	14.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	597	383	171	245	249		730	1618	722	484	1817	
V/C Ratio(X)	0.49	0.62	0.73	0.36	0.59		0.16	0.43	0.08	0.51	0.48	
Avail Cap(c_a), veh/h	923	592	264	342	316		1166	1618	722	608	1817	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.5	38.4	38.9	35.2	40.6	0.0	12.4	16.6	13.9	11.3	14.3	0.0
Incr Delay (d2), s/veh	0.6	1.6	5.7	0.9	2.2	0.0	0.1	0.8	0.2	0.8	0.9	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	2.5	2.8	1.7	1.6	0.0	0.6	4.5	0.7	2.2	5.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.1	40.0	44.6	36.1	42.8	0.0	12.5	17.4	14.1	12.2	15.2	0.0
LnGrp LOS	C	D	D	D	D		B	B	B	B	B	
Approach Vol, veh/h	654			235			869			1127		
Approach Delay, s/veh	38.2			40.3			16.5			14.5		
Approach LOS	D			D			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	52.5	15.5	12.3	14.7	47.5	12.1	15.7				
Change Period (Y+Rc), s	6.0	6.5	6.0	6.0	6.0	6.5	6.0	6.0				
Max Green Setting (Gmax), s	15.0	24.5	18.0	8.0	15.0	24.5	11.0	15.0				
Max Q Clear Time (g_c+I1), s	3.6	16.5	8.8	5.6	8.4	13.8	6.0	8.8				
Green Ext Time (p_c), s	0.2	3.4	0.7	0.1	0.4	3.3	0.1	0.9				

Intersection Summary

HCM 7th Control Delay, s/veh	22.6
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	409	72	14	325	8	0	0	18	0	0	41
Future Vol, veh/h	23	409	72	14	325	8	0	0	18	0	0	41
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	200	-	-	150	-	-	-	-	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	25	445	78	15	353	9	0	0	20	0	0	45

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	362	0	0	523	0	0	-	-	261	-	-	181
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	1193	-	-	1040	-	-	0	0	737	0	0	831
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1193	-	-	1040	-	-	-	-	737	-	-	831
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.37			0.34			10.02			9.58		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	737	1193	-	-	1040	-	-	831
HCM Lane V/C Ratio	0.027	0.021	-	-	0.015	-	-	0.054
HCM Control Delay (s/veh)	10	8.1	-	-	8.5	-	-	9.6
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.2

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	366	50	23	324	43	18	48	39	50	22	5
Future Vol, veh/h	11	366	50	23	324	43	18	48	39	50	22	5
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	160	-	250	160	-	-	-	-	135	90	-	-
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	12	398	54	25	352	47	20	52	42	54	24	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	399	0	0	452	0	0	660	871	199	674	902	199
Stage 1	-	-	-	-	-	-	422	422	-	426	426	-
Stage 2	-	-	-	-	-	-	238	449	-	249	476	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1156	-	-	1105	-	-	348	288	809	340	276	808
Stage 1	-	-	-	-	-	-	580	587	-	577	584	-
Stage 2	-	-	-	-	-	-	744	571	-	733	555	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1156	-	-	1105	-	-	306	279	809	255	267	808
Mov Cap-2 Maneuver	-	-	-	-	-	-	306	279	-	255	267	-
Stage 1	-	-	-	-	-	-	574	581	-	564	571	-
Stage 2	-	-	-	-	-	-	692	558	-	626	549	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.21			0.49			17.3			21.21		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	285	809	1156	-	-	1105	-	-	255	305
HCM Lane V/C Ratio	0.251	0.052	0.01	-	-	0.023	-	-	0.213	0.096
HCM Control Delay (s/veh)	21.8	9.7	8.1	-	-	8.3	-	-	22.9	18.1
HCM Lane LOS	C	A	A	-	-	A	-	-	C	C
HCM 95th %tile Q(veh)	1	0.2	0	-	-	0.1	-	-	0.8	0.3

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	2	18	36	8	219	16	569	43	169	830	5
Future Vol, veh/h	11	2	18	36	8	219	16	569	43	169	830	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	200	-	0	200	-	200	170	-	145
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	12	2	20	39	9	238	17	618	47	184	902	5
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1618	1970	451	1473	1928	309	908	0	0	665	0	0
Stage 1	1270	1270	-	653	653	-	-	-	-	-	-	-
Stage 2	348	700	-	820	1275	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*127	80	*871	178	87	*940	932	-	-	1084	-	-
Stage 1	*260	303	-	598	580	-	-	-	-	-	-	-
Stage 2	*887	549	-	561	301	-	-	-	-	-	-	-
Platoon blocked, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Cap-1 Maneuver	*69	65	*871	138	71	*940	932	-	-	1084	-	-
Mov Cap-2 Maneuver	*69	65	-	138	71	-	-	-	-	-	-	-
Stage 1	*216	251	-	587	569	-	-	-	-	-	-	-
Stage 2	*640	538	-	452	250	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v33.57			17.66		0.23		1.51					
HCM LOS	D		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	932	-	-	69	389	118	940	1084	-	-		
HCM Lane V/C Ratio	0.019	-	-	0.173	0.056	0.407	0.253	0.169	-	-		
HCM Control Delay (s/veh)	8.9	-	-	67.7	14.8	55.2	10.1	9	-	-		
HCM Lane LOS	A	-	-	F	B	F	B	A	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.2	1.7	1	0.6	-	-		
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s			+: Computation Not Defined				*: All major volume in platoon			

Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	177	5	2	115	16	7	2	2	13	5	140
Future Vol, veh/h	32	177	5	2	115	16	7	2	2	13	5	140
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	140	-	-	75	-	-	-	-	-	-	-	-
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	35	192	5	2	125	17	8	2	2	14	5	152
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	142	0	0	198	0	0	397	411	195	401	405	134
Stage 1	-	-	-	-	-	-	265	265	-	138	138	-
Stage 2	-	-	-	-	-	-	132	147	-	263	267	-
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	1440	-	-	1375	-	-	563	530	846	560	535	915
Stage 1	-	-	-	-	-	-	741	690	-	865	782	-
Stage 2	-	-	-	-	-	-	871	776	-	742	688	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1440	-	-	1375	-	-	453	517	846	542	521	915
Mov Cap-2 Maneuver	-	-	-	-	-	-	453	517	-	542	521	-
Stage 1	-	-	-	-	-	-	723	673	-	864	781	-
Stage 2	-	-	-	-	-	-	720	774	-	720	671	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	1.13			0.11			12.27			10.33		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	507	1440	-	-	1375	-	-	847				
HCM Lane V/C Ratio	0.024	0.024	-	-	0.002	-	-	0.203				
HCM Control Delay (s/veh)	12.3	7.6	-	-	7.6	-	-	10.3				
HCM Lane LOS	B	A	-	-	A	-	-	B				
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.8				

HCM 7th TWSC
6: New Hope Way & S Site Access

08/15/2024

Intersection						
Int Delay, s/veh	6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	159	21	28	0	75
Future Vol, veh/h	16	159	21	28	0	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	173	23	30	0	82

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	117	41	82	0	-	0
Stage 1	41	-	-	-	-	-
Stage 2	76	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	879	1030	1516	-	-	-
Stage 1	982	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	866	1030	1516	-	-	-
Mov Cap-2 Maneuver	866	-	-	-	-	-
Stage 1	967	-	-	-	-	-
Stage 2	947	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.38	3.18	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	771	-	1013	-	-
HCM Lane V/C Ratio	0.015	-	0.188	-	-
HCM Control Delay (s/veh)	7.4	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.7	-	-

HCM 7th TWSC
7: New Hope Way & N Site Access

08/15/2024

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	0	28	16	75	11
Future Vol, veh/h	2	0	28	16	75	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	0	30	17	82	12

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	166	88	93
Stage 1	88	-	-
Stage 2	78	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	825	971	1501
Stage 1	936	-	-
Stage 2	945	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	808	971	1501
Mov Cap-2 Maneuver	808	-	-
Stage 1	917	-	-
Stage 2	945	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.47	4.74	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1145	-	808	-	-
HCM Lane V/C Ratio	0.02	-	0.003	-	-
HCM Control Delay (s/veh)	7.4	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0	-	-

Queues

1: Meadows Blvd & Prairie Hawk Dr & Meadows Pkwy

08/15/2024

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Group Flow (vph)	298	280	79	43	218	166	199	762	63	176	439	252	
v/c Ratio	0.42	0.35	0.16	0.16	0.50	0.10	0.20	0.59	0.09	0.49	0.32	0.16	
Control Delay (s/veh)	24.3	31.8	0.7	22.1	40.5	0.1	5.7	25.3	4.9	15.9	21.1	0.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	24.3	31.8	0.7	22.1	40.5	0.1	5.7	25.3	4.9	15.9	21.1	0.2	
Queue Length 50th (ft)	64	75	0	17	61	0	6	236	4	47	90	0	
Queue Length 95th (ft)	89	110	0	37	95	0	m22	m280	m11	92	144	0	
Internal Link Dist (ft)	963				501		650				1471		
Turn Bay Length (ft)	350		200		240		230		180		410		180
Base Capacity (vph)	927	789	499	445	438	1583	1285	1296	695	483	1381	1583	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.32	0.35	0.16	0.10	0.50	0.10	0.15	0.59	0.09	0.36	0.32	0.16	

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 7th Signalized Intersection Summary

1: Meadows Blvd & Prairie Hawk Dr & Meadows Pkwy

08/15/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	274	258	73	40	201	153	183	701	58	162	404	232
Future Volume (veh/h)	274	258	73	40	201	153	183	701	58	162	404	232
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	298	280	79	43	218	0	199	762	63	176	439	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	567	496	221	227	276		1120	1667	743	428	1733	
Arrive On Green	0.11	0.14	0.14	0.04	0.08	0.00	0.06	0.47	0.47	0.07	0.49	0.00
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	298	280	79	43	218	0	199	762	63	176	439	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	6.8	6.6	4.1	2.0	5.4	0.0	2.6	13.0	2.0	4.5	6.5	0.0
Cycle Q Clear(g_c), s	6.8	6.6	4.1	2.0	5.4	0.0	2.6	13.0	2.0	4.5	6.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	567	496	221	227	276		1120	1667	743	428	1733	
V/C Ratio(X)	0.53	0.56	0.36	0.19	0.79		0.18	0.46	0.08	0.41	0.25	
Avail Cap(c_a), veh/h	1006	496	221	464	276		1579	1667	743	632	1733	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.7	36.2	35.1	35.5	40.8	0.0	10.9	16.2	13.2	11.7	13.5	0.0
Incr Delay (d2), s/veh	0.8	1.5	1.0	0.4	14.2	0.0	0.1	0.9	0.2	0.6	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	2.8	1.5	0.8	2.8	0.0	0.9	4.9	0.7	1.6	2.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.5	37.6	36.0	35.9	54.9	0.0	11.0	17.1	13.4	12.3	13.8	0.0
LnGrp LOS	C	D	D	D	D		B	B	B	B	B	
Approach Vol, veh/h	657				261			1024			615	
Approach Delay, s/veh	35.1				51.8			15.7			13.4	
Approach LOS	D				D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	50.4	15.6	13.0	12.7	48.7	10.0	18.6				
Change Period (Y+Rc), s	6.0	6.5	6.0	6.0	6.0	6.5	6.0	6.0				
Max Green Setting (Gmax), s	17.0	20.5	21.0	7.0	17.0	20.5	16.0	12.0				
Max Q Clear Time (g_c+I1), s	4.6	8.5	8.8	7.4	6.5	15.0	4.0	8.6				
Green Ext Time (p_c), s	0.5	2.0	0.8	0.0	0.3	2.3	0.0	0.6				

Intersection Summary

HCM 7th Control Delay, s/veh	23.8
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	39	359	80	14	369	20	0	0	7	0	0	25
Future Vol, veh/h	39	359	80	14	369	20	0	0	7	0	0	25
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	200	-	-	150	-	-	-	-	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	42	390	87	15	401	22	0	0	8	0	0	27

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	423	0	0	477	0	0	-	-	239	-	-	211
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	1133	-	-	1081	-	-	0	0	763	0	0	794
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1133	-	-	1081	-	-	-	-	763	-	-	794
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.68			0.29			9.77			9.69		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	763	1133	-	-	1081	-	-	794
HCM Lane V/C Ratio	0.01	0.037	-	-	0.014	-	-	0.034
HCM Control Delay (s/veh)	9.8	8.3	-	-	8.4	-	-	9.7
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	305	53	31	362	28	40	58	18	35	17	1
Future Vol, veh/h	8	305	53	31	362	28	40	58	18	35	17	1
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	160	-	250	160	-	-	-	-	135	90	-	-
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	9	332	58	34	393	30	43	63	20	38	18	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	424	0	0	389	0	0	622	840	166	691	883	212
Stage 1	-	-	-	-	-	-	349	349	-	476	476	-
Stage 2	-	-	-	-	-	-	273	491	-	215	407	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1132	-	-	1166	-	-	371	300	849	331	283	793
Stage 1	-	-	-	-	-	-	640	632	-	539	555	-
Stage 2	-	-	-	-	-	-	709	546	-	768	596	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1132	-	-	1166	-	-	334	289	849	246	273	793
Mov Cap-2 Maneuver	-	-	-	-	-	-	334	289	-	246	273	-
Stage 1	-	-	-	-	-	-	635	627	-	523	539	-
Stage 2	-	-	-	-	-	-	664	530	-	669	591	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.18			0.6			20.83			21.07		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	306	849	1132	-	-	1166	-	-	246	283
HCM Lane V/C Ratio	0.348	0.023	0.008	-	-	0.029	-	-	0.155	0.069
HCM Control Delay (s/veh)	22.9	9.3	8.2	-	-	8.2	-	-	22.3	18.6
HCM Lane LOS	C	A	A	-	-	A	-	-	C	C
HCM 95th %tile Q(veh)	1.5	0.1	0	-	-	0.1	-	-	0.5	0.2

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	7	7	2	123	9	816	45	101	408	8
Future Vol, veh/h	3	0	7	7	2	123	9	816	45	101	408	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	200	-	0	200	-	200	170	-	145
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	0	8	8	2	134	10	887	49	110	443	9

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1127	1618	222	1348	1578	443	452	0	0	936	0	0
Stage 1	663	663	-	907	907	-	-	-	-	-	-	-
Stage 2	464	955	-	441	672	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*260	128	*987	166	137	*871	1246	-	-	905	-	-
Stage 1	*521	528	-	485	485	-	-	-	-	-	-	-
Stage 2	*821	456	-	724	523	-	-	-	-	-	-	-
Platoon blocked, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Cap-1 Maneuver	*188	112	*987	143	120	*871	1246	-	-	905	-	-
Mov Cap-2 Maneuver	*188	112	-	143	120	-	-	-	-	-	-	-
Stage 1	*457	464	-	481	482	-	-	-	-	-	-	-
Stage 2	*686	452	-	631	460	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	13.4	11.48	0.08	1.86
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1246	-	-	188	987	137	871	905	-	-
HCM Lane V/C Ratio	0.008	-	-	0.017	0.008	0.071	0.154	0.121	-	-
HCM Control Delay (s/veh)	7.9	-	-	24.4	8.7	33.2	9.9	9.5	-	-
HCM Lane LOS	A	-	-	C	A	D	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0.2	0.5	0.4	-	-

Notes												
~: Volume exceeds capacity			\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon			

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	108	4	1	99	7	5	2	2	4	0	27
Future Vol, veh/h	34	108	4	1	99	7	5	2	2	4	0	27
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	140	-	-	75	-	-	-	-	-	-	-	-
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	37	117	4	1	108	8	5	2	2	4	0	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	115	0	0	122	0	0	303	311	120	306	309	111
Stage 1	-	-	-	-	-	-	193	193	-	114	114	-
Stage 2	-	-	-	-	-	-	110	117	-	192	196	-
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	1474	-	-	1466	-	-	649	604	932	646	605	942
Stage 1	-	-	-	-	-	-	808	740	-	891	801	-
Stage 2	-	-	-	-	-	-	895	798	-	809	739	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1474	-	-	1466	-	-	613	588	932	626	590	942
Mov Cap-2 Maneuver	-	-	-	-	-	-	613	588	-	626	590	-
Stage 1	-	-	-	-	-	-	788	722	-	891	801	-
Stage 2	-	-	-	-	-	-	867	798	-	785	720	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	1.75			0.07			10.57			9.23		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	657	1474	-	-	1466	-	-	884
HCM Lane V/C Ratio	0.015	0.025	-	-	0.001	-	-	0.038
HCM Control Delay (s/veh)	10.6	7.5	-	-	7.5	-	-	9.2
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1

HCM 7th TWSC
6: New Hope Way & S Site Access

08/15/2024

Intersection						
Int Delay, s/veh	4.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	32	38	4	0	65
Future Vol, veh/h	3	32	38	4	0	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	35	41	4	0	71

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	122	35	71	0	-	0
Stage 1	35	-	-	-	-	-
Stage 2	87	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	873	1037	1530	-	-	-
Stage 1	987	-	-	-	-	-
Stage 2	936	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	849	1037	1530	-	-	-
Mov Cap-2 Maneuver	849	-	-	-	-	-
Stage 1	960	-	-	-	-	-
Stage 2	936	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.67	6.71	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1526	-	1018	-	-
HCM Lane V/C Ratio	0.027	-	0.037	-	-
HCM Control Delay (s/veh)	7.4	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

HCM 7th TWSC
7: New Hope Way & N Site Access

08/15/2024

Intersection

Int Delay, s/veh 0

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 0 0 0 7 65 29

Future Vol, veh/h 0 0 0 7 65 29

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 0 0 0 8 71 32

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 94 86 102 0 - 0

Stage 1 86 - - - - -

Stage 2 8 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 906 972 1490 - - -

Stage 1 937 - - - - -

Stage 2 1015 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 906 972 1490 - - -

Mov Cap-2 Maneuver 906 - - - - -

Stage 1 937 - - - - -

Stage 2 1015 - - - - -

Approach EB NB SB

HCM Control Delay, s/v 0 0 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1490 - - - - -

HCM Lane V/C Ratio - - - - -

HCM Control Delay (s/veh) 0 - 0 - -

HCM Lane LOS A - A - -

HCM 95th %tile Q(veh) 0 - - - -

Queues

1: Meadows Blvd & Prairie Hawk Dr & Meadows Pkwy

08/15/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	292	262	124	88	163	163	120	751	61	248	971	173
v/c Ratio	0.43	0.46	0.30	0.31	0.43	0.10	0.22	0.58	0.08	0.62	0.66	0.11
Control Delay (s/veh)	25.6	37.6	3.2	25.4	40.9	0.1	7.4	26.9	1.8	17.7	24.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.6	37.6	3.2	25.4	40.9	0.1	7.4	26.9	1.8	17.7	24.6	0.1
Queue Length 50th (ft)	65	74	0	37	46	0	5	224	0	66	226	0
Queue Length 95th (ft)	89	109	14	67	75	0	m16	296	m6	124	335	0
Internal Link Dist (ft)	963			501			650			1471		
Turn Bay Length (ft)	350		200	240		230	180			410		180
Base Capacity (vph)	857	641	440	332	383	1583	840	1295	741	459	1481	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.41	0.28	0.27	0.43	0.10	0.14	0.58	0.08	0.54	0.66	0.11

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 7th Signalized Intersection Summary

1: Meadows Blvd & Prairie Hawk Dr & Meadows Pkwy

08/15/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	241	114	81	150	150	110	691	56	228	893	159
Future Volume (veh/h)	269	241	114	81	150	150	110	691	56	228	893	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	292	262	124	88	163	0	120	751	61	248	971	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	587	386	172	238	252		668	1615	720	460	1814	
Arrive On Green	0.11	0.11	0.11	0.07	0.07	0.00	0.04	0.45	0.45	0.10	0.51	0.00
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	292	262	124	88	163	0	120	751	61	248	971	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	6.8	6.4	6.8	4.0	4.0	0.0	1.6	13.2	2.0	6.4	16.6	0.0
Cycle Q Clear(g_c), s	6.8	6.4	6.8	4.0	4.0	0.0	1.6	13.2	2.0	6.4	16.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	587	386	172	238	252		668	1615	720	460	1814	
V/C Ratio(X)	0.50	0.68	0.72	0.37	0.65		0.18	0.46	0.08	0.54	0.54	
Avail Cap(c_a), veh/h	914	592	264	335	316		1103	1615	720	584	1814	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.4	38.6	38.8	35.2	40.7	0.0	12.7	17.0	13.9	11.8	14.8	0.0
Incr Delay (d2), s/veh	0.7	2.1	5.5	1.0	3.1	0.0	0.1	1.0	0.2	1.0	1.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	2.8	2.8	1.7	1.8	0.0	0.6	5.0	0.7	2.2	6.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.1	40.7	44.3	36.1	43.8	0.0	12.8	17.9	14.2	12.7	16.0	0.0
LnGrp LOS	C	D	D	D	D		B	B	B	B	B	
Approach Vol, veh/h	678			251			932			1219		
Approach Delay, s/veh	38.5			41.1			17.0			15.3		
Approach LOS	D			D			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	52.4	15.5	12.4	14.7	47.4	12.1	15.8				
Change Period (Y+Rc), s	6.0	6.5	6.0	6.0	6.0	6.5	6.0	6.0				
Max Green Setting (Gmax), s	15.0	24.5	18.0	8.0	15.0	24.5	11.0	15.0				
Max Q Clear Time (g_c+I1), s	3.6	18.6	8.8	6.0	8.4	15.2	6.0	8.8				
Green Ext Time (p_c), s	0.2	3.0	0.7	0.1	0.4	3.3	0.1	1.0				

Intersection Summary

HCM 7th Control Delay, s/veh	23.0
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	431	72	14	340	8	0	0	18	0	0	41
Future Vol, veh/h	23	431	72	14	340	8	0	0	18	0	0	41
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	200	-	-	150	-	-	-	-	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	25	468	78	15	370	9	0	0	20	0	0	45

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	378	0	0	547	0	0	-	-	273	-	-	189
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	1177	-	-	1019	-	-	0	0	724	0	0	821
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1177	-	-	1019	-	-	-	-	724	-	-	821
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.36			0.33			10.11			9.64		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	724	1177	-	-	1019	-	-	821
HCM Lane V/C Ratio	0.027	0.021	-	-	0.015	-	-	0.054
HCM Control Delay (s/veh)	10.1	8.1	-	-	8.6	-	-	9.6
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.2

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	388	50	23	339	43	18	48	39	50	22	5
Future Vol, veh/h	11	388	50	23	339	43	18	48	39	50	22	5
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	160	-	250	160	-	-	-	-	135	90	-	-
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	12	422	54	25	368	47	20	52	42	54	24	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	415	0	0	476	0	0	692	911	211	703	942	208
Stage 1	-	-	-	-	-	-	446	446	-	442	442	-
Stage 2	-	-	-	-	-	-	246	465	-	261	500	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1140	-	-	1082	-	-	330	273	795	325	262	798
Stage 1	-	-	-	-	-	-	561	573	-	564	575	-
Stage 2	-	-	-	-	-	-	736	561	-	721	541	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1140	-	-	1082	-	-	288	264	795	240	253	798
Mov Cap-2 Maneuver	-	-	-	-	-	-	288	264	-	240	253	-
Stage 1	-	-	-	-	-	-	556	567	-	551	562	-
Stage 2	-	-	-	-	-	-	683	548	-	613	536	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.2	0.48	18.15	22.42
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	270	795	1140	-	-	1082	-	-	240	289
HCM Lane V/C Ratio	0.266	0.053	0.01	-	-	0.023	-	-	0.227	0.101
HCM Control Delay (s/veh)	23.1	9.8	8.2	-	-	8.4	-	-	24.4	18.8
HCM Lane LOS	C	A	A	-	-	A	-	-	C	C
HCM 95th %tile Q(veh)	1	0.2	0	-	-	0.1	-	-	0.8	0.3

Intersection

Int Delay, s/veh 4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	2	18	36	8	219	16	627	43	169	914	5
Future Vol, veh/h	11	2	18	36	8	219	16	627	43	169	914	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	200	-	0	200	-	200	170	-	145
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	12	2	20	39	9	238	17	682	47	184	993	5

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	1741	2124	497	1582	2083	341	999	0	0	728	0	0
Stage 1	1361	1361	-	716	716	-	-	-	-	-	-	-
Stage 2	380	763	-	865	1366	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*101	60	*847	148	65	*917	873	-	-	1051	-	-
Stage 1	*233	277	-	579	562	-	-	-	-	-	-	-
Stage 2	*865	531	-	558	275	-	-	-	-	-	-	-
Platoon blocked, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Cap-1 Maneuver	*52	49	*847	113	53	*917	873	-	-	1051	-	-
Mov Cap-2 Maneuver	*52	49	-	113	53	-	-	-	-	-	-	-
Stage 1	*193	229	-	567	551	-	-	-	-	-	-	-
Stage 2	*618	521	-	446	227	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v44.29		21.64	0.21	1.42
HCM LOS	E	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	873	-	-	52	320	94	917	1051	-	-
HCM Lane V/C Ratio	0.02	-	-	0.23	0.068	0.511	0.26	0.175	-	-
HCM Control Delay (s/veh)	9.2	-	-	93.8	17	78.1	10.3	9.1	-	-
HCM Lane LOS	A	-	-	F	C	F	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.8	0.2	2.2	1	0.6	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	177	5	2	115	16	7	2	2	13	5	140
Future Vol, veh/h	32	177	5	2	115	16	7	2	2	13	5	140
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	140	-	-	75	-	-	-	-	-	-	-	-
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	35	192	5	2	125	17	8	2	2	14	5	152

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	142	0	0	198	0	0	397	411	195	401	405	134
Stage 1	-	-	-	-	-	-	265	265	-	138	138	-
Stage 2	-	-	-	-	-	-	132	147	-	263	267	-
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	1440	-	-	1375	-	-	563	530	846	560	535	915
Stage 1	-	-	-	-	-	-	741	690	-	865	782	-
Stage 2	-	-	-	-	-	-	871	776	-	742	688	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1440	-	-	1375	-	-	453	517	846	542	521	915
Mov Cap-2 Maneuver	-	-	-	-	-	-	453	517	-	542	521	-
Stage 1	-	-	-	-	-	-	723	673	-	864	781	-
Stage 2	-	-	-	-	-	-	720	774	-	720	671	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	1.13			0.11			12.27			10.33		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	507	1440	-	-	1375	-	-	847
HCM Lane V/C Ratio	0.024	0.024	-	-	0.002	-	-	0.203
HCM Control Delay (s/veh)	12.3	7.6	-	-	7.6	-	-	10.3
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.8

HCM 7th TWSC
6: New Hope Way & S Site Access

08/15/2024

Intersection						
Int Delay, s/veh	6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	160	21	28	0	75
Future Vol, veh/h	16	160	21	28	0	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	174	23	30	0	82

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	117	41	82	0	-	0
Stage 1	41	-	-	-	-	-
Stage 2	76	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	879	1030	1516	-	-	-
Stage 1	982	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	866	1030	1516	-	-	-
Mov Cap-2 Maneuver	866	-	-	-	-	-
Stage 1	967	-	-	-	-	-
Stage 2	947	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.38	3.18	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	771	-	1013	-	-
HCM Lane V/C Ratio	0.015	-	0.189	-	-
HCM Control Delay (s/veh)	7.4	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.7	-	-

HCM 7th TWSC
7: New Hope Way & N Site Access

08/15/2024

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	0	28	16	75	11
Future Vol, veh/h	2	0	28	16	75	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	0	30	17	82	12

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	166	88	93
Stage 1	88	-	-
Stage 2	78	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	825	971	1501
Stage 1	936	-	-
Stage 2	945	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	808	971	1501
Mov Cap-2 Maneuver	808	-	-
Stage 1	917	-	-
Stage 2	945	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.47	4.74	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1145	-	808	-	-
HCM Lane V/C Ratio	0.02	-	0.003	-	-
HCM Control Delay (s/veh)	7.4	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0	-	-