
Traffic Impact Study

98th & Bluewater Commercial Development

Albuquerque, NM

June 2021

Prepared for:

Red Sky Holdings, LLC
904 Hidden Meadow Ct.
Southlake, TX 76092

Prepared by:



Civil Transformations Inc.
2929 Coors Blvd. NW, Suite 309
Albuquerque, NM 87120

Traffic Impact Study

98th & Bluewater Commercial Development

Albuquerque, NM

June 2021

Prepared for:

Red Sky Holdings, LLC
904 Hidden Meadow Ct.
Southlake, TX 76092

Prepared by:

Civil Transformations Inc.
2929 Coors Blvd. NW, Suite 309
Albuquerque, NM 87120



The technical material and data contained in this document were prepared by the undersigned, whose seal as a Professional Engineer, licensed to practice in the State of New Mexico, is affixed below.



Timothy D. Simmons, PE, PTOE
06/04/2021



TABLE OF CONTENTS

SECTION	PAGE
1.0 EXECUTIVE SUMMARY	1
1.1 Purpose of Study.....	1
1.2 Principal Findings	1
1.3 Recommendations	1
2.0 INTRODUCTION	2
2.1 Description of Proposed Project.....	2
2.2 Project Location	2
2.3 Study Area	2
2.4 Scope of Analysis.....	2
2.5 Planned Developments or Projects in the Vicinity	2
3.0 EXISTING CONDITIONS	3
3.1 Current Land Use & Zoning.....	3
3.2 Existing Roadway System.....	3
3.3 Existing Traffic Data	5
3.4 Existing Roadway/Intersection Capacity	8
3.5 Transit Service	8
3.6 Bicycle & Pedestrian Facilities	8
4.0 PROPOSED SITE TRAFFIC CHARACTERISTICS	8
4.1 Proposed Project Phasing and Timing	8
4.2 Site Access and Circulation.....	8
4.3 Trip Generation	10
4.4 Site Traffic Distribution and Assignment	11
5.0 FUTURE TRAFFIC CONDITIONS	12
5.1 Background Traffic Projection	12
6.0 TRANSPORTATION ANALYSIS	13
6.1 Site Traffic Operations Analysis	13
6.2 Queueing Summary	15
6.3 Assessment of Impacts	16
6.4 Mitigation Analysis	17
7.0 SITE ACCESS REQUIREMENTS	18
8.0 SUMMARY OF FINDINGS	19
9.0 RECOMMENDATIONS & MITIGATION MEASURES.....	20

APPENDICES

APPENDIX A – Traffic Scoping Requirements
 APPENDIX B – Existing & Projected Traffic Data
 APPENDIX C – Trip Generation Data
 APPENDIX D – LOS Worksheets
 APPENDIX E – Mitigation Analysis LOS Worksheets
 APPENDIX F – Site Traffic Proportional Calculations

LIST OF TABLES

<u>Table</u>	<u>Page</u>
<i>Table 1: Traffic Distribution Summary</i>	8
<i>Table 2: Estimated Site Trip Generation</i>	11
<i>Table 3: Historic Traffic Volumes (AWDT)</i>	12
<i>Table 4: Intersection Level of Service (LOS) Criteria (HCM 6th Ed.)</i>	13
<i>Table 5: LOS Summary for Alternative Concepts*</i>	14
<i>Table 6: Calculated 95th Percentile Queue Lengths</i>	16
<i>Table 7: LOS Summary for Mitigation Scenarios</i>	18

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
<i>Figure 1: Vicinity Map</i>	2
<i>Figure 2: Existing Roadway Network</i>	4
<i>Figure 3: AM Peak Hour Volumes (Baseline)</i>	6
<i>Figure 4: PM Peak Hour Volumes (Baseline)</i>	7
<i>Figure 5: Proposed Site Scheme</i>	9
<i>Figure 6: Conceptual Site Layout</i>	10
<i>Figure 7: Future Network Roadway Extensions</i>	21

1.0 EXECUTIVE SUMMARY

1.1 Purpose of Study

This report documents the results of a Traffic Impact Study (TIS) for a proposed commercial land development located in the southeast quadrant of the 98th St. and Bluewater Rd. intersection in Albuquerque, NM. The purpose of this TIS is to assess traffic operations associated with traffic generated by this proposed project on the adjacent transportation network, specifically 98th St.

This study evaluated both the existing and proposed conditions of 98th St. from Central Ave. to I-40 and the proposed site entrances, and was conducted in accordance with the City of Albuquerque Development Process Manual (COA DPM) Article 7-5, Traffic Studies. Study requirements were established through a traffic scoping meeting held with the COA Traffic Engineer and New Mexico Department of Transportation (NMDOT) District 3 Traffic Engineering staff (see scoping meeting minutes, Appendix A).

1.2 Principal Findings

Key findings of this analysis are summarized as follows:

1. Levels of service (LOS) at 98th St. signalized intersections are acceptable for baseline conditions.
2. Site-generated traffic is not expected to cause significant, adverse impacts to the adjacent roadway network, including the traffic signalized intersections along 98th St., but will incrementally increase delay.
3. The 98th St. corridor from Central Ave. to I-40 acts as a commuter route serving residential areas in southwest Albuquerque to other areas of the city. This corridor has seen a consistent high growth trend which may continue indefinitely given the amount of vacant lands in the vicinity. Sustained traffic growth in the region will exacerbate these conditions and necessitate improvements by Year 2025 including:
 - a. Expansion of 98th St. to a 6-lane arterial;
 - b. Traffic signal timing improvements to optimize throughput and traffic progression;
 - c. Intersection improvements to add turn lanes and/or extend queue storage.
4. Regional improvements will also be necessary to alleviate congestion on 98th St. A review of the Transportation Improvement Program (TIP) prepared by MRCOG revealed at least two projects slated for implementation in the vicinity that should be advanced.

1.3 Recommendations

The following recommendations are offered concerning on- and off-site access modifications.

1. *On-Site Access*
 - a. Four access driveways are proposed to provide ample circulation and on-site queueing space for the drive-through businesses as illustrated in Figure 5 and detailed in Section 7.1 of this report.
 - b. These driveways will be designed in accordance with City of Albuquerque Development Process Manual (COA DPM) requirements.
2. *Off-Site Roadway Improvements*
 - a. Extension of the third northbound through (NBT) lane and buffered bike lane along the property frontage from Bluewater Rd. to the Volcano Rd. return.
 - b. Addition of a northbound right-turn (NBR) lane at 98th/Bluewater Rd. and accommodation of trucks.
 - c. Installation of buffered sidewalk along the property frontage.
 - d. Provision of a southbound left-turn (SBL) lane on 98th St. at Site Driveway 3.
 - e. Other improvements to 98th St. at Central Ave. will be required to address background traffic growth; a fair share contribution from the developer should be established based on the proportion of site traffic contributed to this intersection.

See Section 9 of this report for further details of these recommendations.

2.0 INTRODUCTION

2.1 Description of Proposed Project

The project is comprised of six commercial lots within an 11-acre parcel. Construction is projected to commence in year 2021 and is slated for completion by 2025.

2.2 Project Location

The project is located in western Albuquerque south of Interstate 40 (I-40) as depicted in Figure 1.

Figure 1: Vicinity Map



Source: Google Earth

2.3 Study Area

The study area encompasses the site and adjacent roadways, namely 98th St. from Central Ave. to I-40 and Bluewater Rd. from 98th St. to 90th St. Included in the analysis are the traffic signalized intersections of 98th/Central, 98th/Bluewater/Avalon, and 98th/I-40 North Ramp as well as the unsignalized intersections of 98th/I-40 South Ramp and Bluewater/90th. 98th/Volcano was added to analyze a proposed site driveway east of 98th St.

2.4 Scope of Analysis

Primary tasks incorporated into this analysis include:

- A. **Data Collection** – including traffic volume counts, other roadway network parameters, and regional data for the traffic analysis.
- B. **Traffic Operations Analysis** – utilizing the collected data, computerized models were developed in *Synchro 10* software for analysis utilizing *Highway Capacity Manual (HCM)* procedures.
- C. **Geometric Evaluation** – consideration of safe access measures such as auxiliary lanes and/or access geometry to mitigate traffic impacts, if necessary.

2.5 Planned Developments or Projects in the Vicinity

Two imminent development projects were identified for reference in this study:

- A. Westpointe Industrial Park Development (April 2021) – a multi-acre development proposed in the southeast quadrant of the I-40/98th St. interchange consisting of distribution centers;
- B. Mercado el Milagro Retail Development (November 2019) – located in the southwest quadrant of the 98th/Central intersection, this project consists of a multi-use commercial site.

The traffic impact studies for these projects were reviewed for comparison of traffic count data, trip estimates, and recommended mitigation measures as described in Section 6 of this report.

3.0 EXISTING CONDITIONS

3.1 Current Land Use & Zoning

The site is currently vacant and zoned NR-BP (formerly SU-1) for a business park. Adjacent land uses are predominantly developed with mixed commercial uses including retail strip malls and fast food restaurants along with the proposed Westpointe Industrial Park to the north. Residential neighborhoods are located east of the site.

3.2 Existing Roadway System

The existing study street network is shown in Figure 1 and described below. These routes are under the jurisdiction of the City of Albuquerque (COA) and with designations as shown on the Functional Classification in the Albuquerque Metropolitan Planning Area by the Mid-Region Council of Governments (MRCOG).

3.2.1 98th St.

Designated as a Principal Arterial, the route has a posted speed of 45 mph and consists of four travel lanes, a raised median, bike lanes, curb & gutter, and concrete sidewalks. Intersection approach or spot lighting exists at the signalized intersections. Average Weekday Traffic (AWDT) on 98th St. south of I-40 was 37,000 in year 2019. Bike lanes extend from Central Ave. to Volcano Rd. 98th St. is a commuter corridor serving southwest Albuquerque and exhibiting heavy directional traffic inbound toward the city core in the AM peak and outbound in the PM peak.

3.2.2 Central Ave.

Central Ave. is designated as a Principal Arterial roadway with AWDT₂₀₁₉ of 8,500; west and AWDT₂₀₁₉ of 13,300 east of 98th St. The roadway consists of 4 travel lanes, raised median, curb & gutter, and intermittent concrete sidewalks. The posted speed is 55 mph.

3.2.3 Bluewater Rd.

A 2-lane Major Collector with curb & gutter and sidewalks at developed parcels and a continuous two-way left-turn lane (TWLTL) between Adonai Rd. and 90th St. AWDT east of 98th St. was not published because the portion of Bluewater from 98th St. to Adonai Rd. was constructed in 2020.

3.2.4 Avalon Rd.

A local roadway within Bernalillo County's jurisdiction west of 98th St., Avalon currently provides access to a truck stop in the northwest quadrant and commercial land uses in the southwest quadrant of the intersection.

3.2.5 90th St.

90th St. is a local roadway within residential uses. However, 90th provides access to existing industrial uses, and will provide additional access to the distribution centers in the Westpointe development.

The study network is illustrated graphically in Figure 2.



3.3 Existing Traffic Data

3.3.1 Turning Movement Counts and Adjustments

Manual turning movement counts (TMCs) were collected on Wednesday and Thursday, April 7 & 8, 2021 during the AM (7-9 a.m.) and PM (4-6 p.m.) peak periods for use in analyzing traffic operations at the study intersections. Because signalized intersections on 98th St. comprise a coordinated network, combined peak hour periods for the corridor were established as beginning at 7:00 a.m. and 4:15 p.m., respectively. A lane closure was emplaced for construction along the west side of 98th St. at Volcano Rd. during the count, but traffic delay did not appear significant enough to cause diversions. Also, a collision occurred on 98th St. in the northbound (NB) direction south of Bluewater affecting one NB lane, but the collision was cleared in fairly short order and normal flows were restored.

Consideration was given to traffic impacts associated with the COVID-19 pandemic and government-mandated closures. Consequently, demand flows were not measured. MRCOG has been periodically monitoring traffic patterns and reported that, in the spring of 2020, traffic volumes had dropped by 32.5% overall throughout the metro area. The following data sources were utilized to derive adjustment factors to adjust for the COVID-19 closures:

- A. 48-hour traffic volume counts collected by MRCOG in 2019 on 98th and Central were used to compare the AM and PM peak hours, revealing that the manual TMC data ranged from approximately 9% to 32% lower than the volume counts (depending on the location and time period).
- B. TMCs recorded as part of the Mercado el Milagro project at 98th/Central and 98th/I-40 were also compared with those collected for this project and found to be 10%-20% higher at Central but up to 30-33% higher at I-40.
- C. Annual Average Daily Traffic (AADT) collected by NMDOT at the I-40 ramps ranged from about 14-32% higher than the TMCs (it should be noted that the AADTs are adjusted to include weekend and not just weekday traffic volumes, resulting in slightly lower traffic volumes than AWDTs).

Therefore, certain adjustments to these TMCs accounting for reduced travel demand were applied as follows:

- 1. Traffic flows on the network map showed good balance between intersections except for the NB direction between central and Bluewater; this was “smoothed” by averaging the approach/departure volumes in between these two major intersections.
- 2. Adjustment factors were applied to the TMC data to expand it and replicate pre-COVID19 traffic for network analysis, varying by location and by time period and ranging from 1.10 to 1.40.

	<u>Location</u>	<u>AM Factor</u>	<u>PM Factor</u>
a.	98 th /Central	1.23	1.00
b.	98 th /Bluewater/Avalon	1.30	1.10
c.	98 th /I40 South	1.40	1.20
d.	98 th /I40 North	1.40	1.10
e.	Bluewater/90 th	1.30	1.10

Adjusted peak hour traffic volumes derived for this analysis along 98th St. are presented in Figures 3 and 4, representing baseline conditions for analysis. Detailed reports of the TMC data and supporting volume counts are contained in Appendix B.

3.3.2 Traffic Distribution Summary

Utilizing these adjusted baseline traffic volumes, directional distribution of traffic to/from the site is tabulated in Table 1.

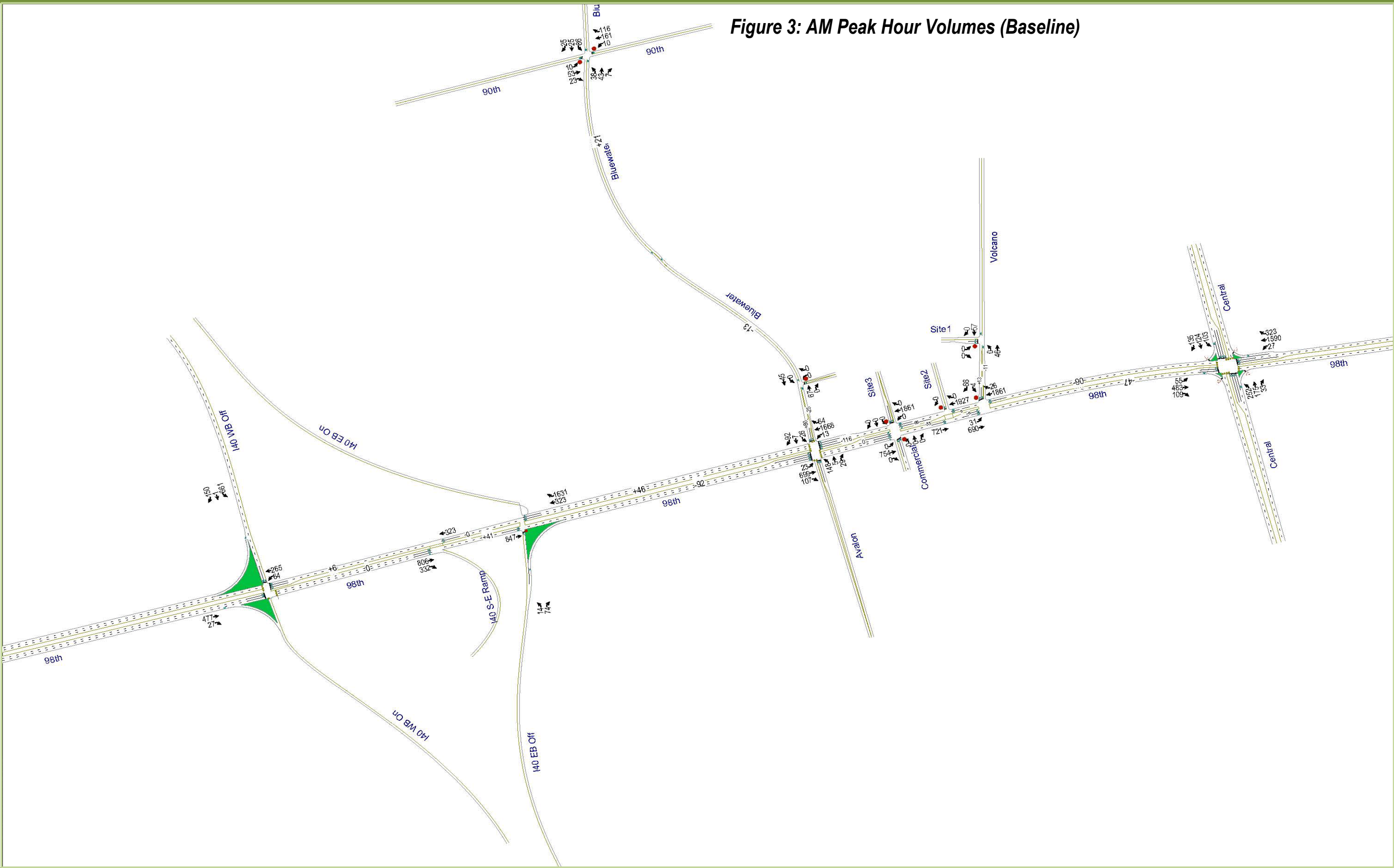


Figure 4: PM Peak Hour Volumes (Baseline)

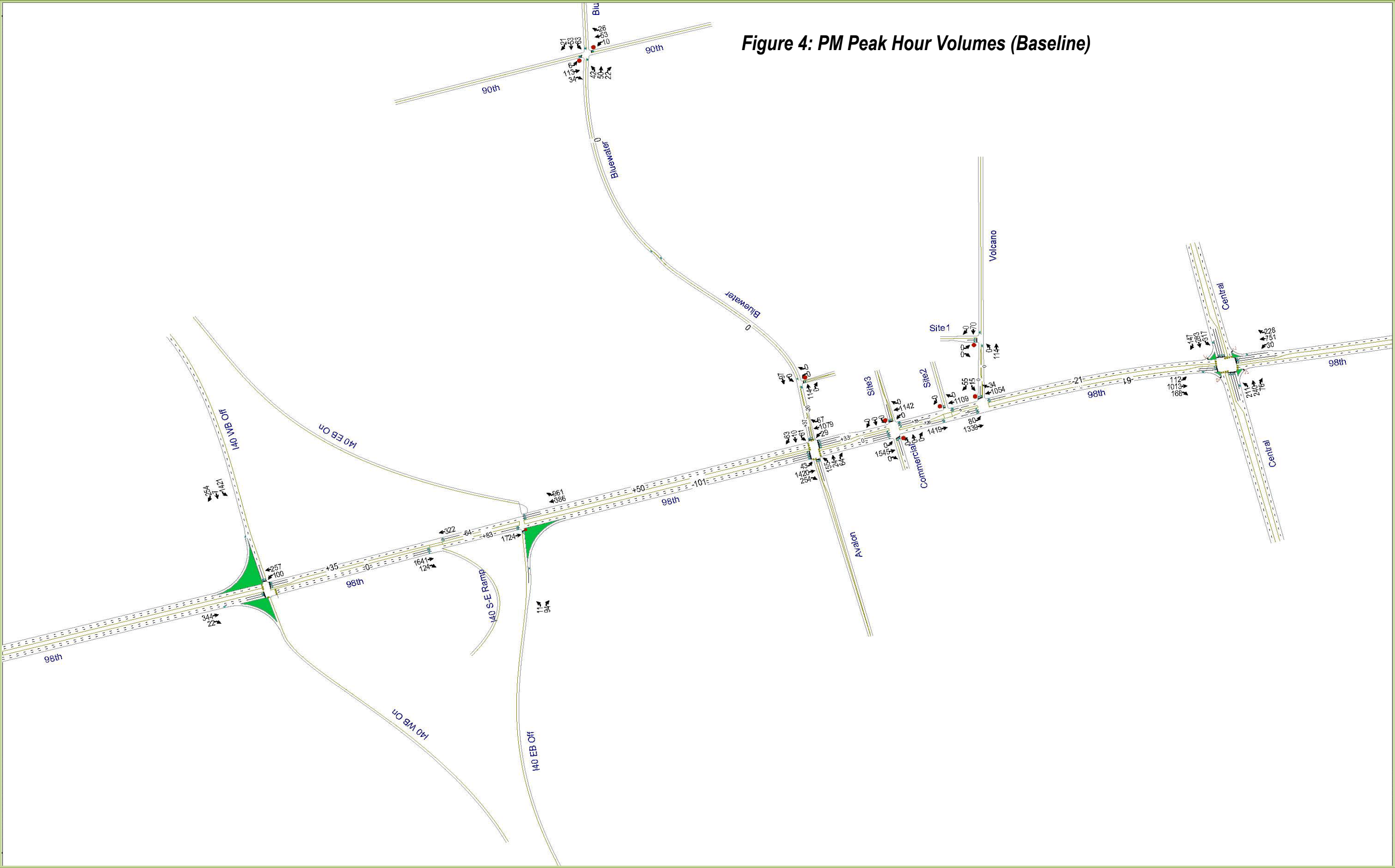


Table 1: Traffic Distribution Summary

Intersection and Traffic Movement	Inbound		Outbound	
	AM	PM	AM	PM
Central South	48.9%	24.3%	37.8%	42.3%
Volcano East	1.3%	1.4%	1.2%	3.8%
Avalon/Bluewater Northwest	18.8%	32.8%	3.7%	4.5%
Bluewater/90th Northeast	1.7%	2.0%	3.9%	3.8%
I40 S. Ramp - NW/NE	1.7%	1.9%	43.9%	32.7%
I40 N. Ramp - North	27.6%	37.7%	9.5%	12.9%
SUM	100%	100%	100%	100%

Because 98th St. acts as a commuter corridor serving predominantly residential land uses south of Central Ave., it was not deemed necessary to employ regional gravity distribution models and therefore these distribution values were applied to new trips generated by the proposed project (see Appendix C). Also, the proposed development will attract predominantly local traffic and significant pass-by traffic.

3.4 Existing Roadway/Intersection Capacity

An analysis of the study intersections was conducted for the existing and baseline (adjusted) conditions as described in Section 6.1 of this report. These were analyzed with the existing traffic signal timing plans as provided in Appendix B. It should be noted that the westbound phase 6 coordinated time setting was lower than the maximum split required to clear the pedestrian phase at Bluewater/Avalon. While the signalized intersections operated at satisfactory levels of service (LOS) D or above as summarized in Table 5, certain lane groups and unsignalized intersections fell below LOS D as shown in the worksheets contained in Appendix D.

3.5 Transit Service

No transit service currently exists on 98th St. north. Several routes run along Central Ave. from 98th eastward and two routes serve 98th St. south of Central Ave. Nearest stops are on 98th south of Central.

3.6 Bicycle & Pedestrian Facilities

Four foot (4') bike lanes exist from Central to Volcano along 98th St., which is designated for future bike facilities in the MRCOG long-range roadway system map.

4.0 PROPOSED SITE TRAFFIC CHARACTERISTICS

4.1 Proposed Project Phasing and Timing

The project is comprised of commercial uses including restaurants and auto care on six (6) parcels as depicted in Figure 5. Construction is projected to commence in year 2021 and full buildout is assumed to be completed by 2025.

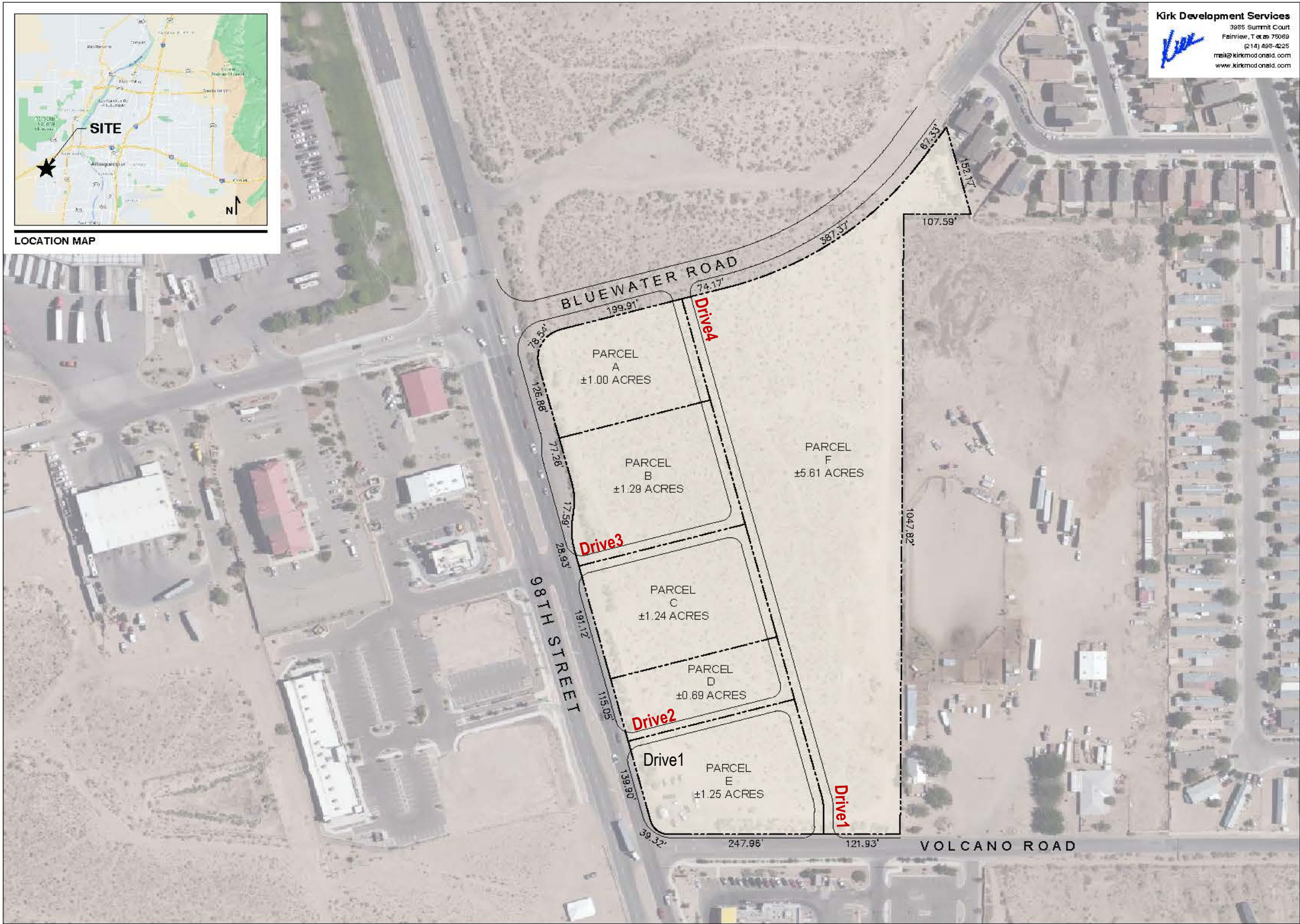
4.2 Site Access and Circulation

As illustrated on Figure 5, access is proposed via four site driveways:

1. Site Drive 1 – full access on Volcano Rd.;
2. Site Drive 2 – right-in/right-out access at 98th St. north of Volcano Rd.;
3. Site Drive 3 – full access on 98th St. aligned with the commercial center on the west side;
4. Site Drive 4 – full access on Bluewater Rd. aligned with the newly completed Maverick gas station.

Multiple access points exist within the adjacent commercial/retail sites to the south and west.

Figure 5: Proposed Site Scheme



PROJECT INFORMATION

SITE AREA	
PARCEL A	±1.00 ACRES
PARCEL B	±1.28 ACRES
PARCEL C	±1.24 ACRES
PARCEL D	±0.89 ACRES
PARCEL E	±1.25 ACRES
PARCEL F	±5.81 ACRES
TOTAL	±11.08 ACRES

ZONING CLASSIFICATION

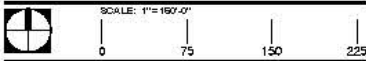
JURISDICTION	CITY OF ALBUQUERQUE
EXISTING ZONING	TBV
REQUIRED ZONING	TBV

- PROJECT NOTES**
1. THIS CONCEPTUAL SITE PLAN IS FOR PLANNING PURPOSES ONLY. SITE SPECIFIC INFORMATION SUCH AS EXISTING CONDITIONS, ZONING, PARKING LANDSCAPE REQUIREMENTS MUST BE VERIFIED.
 2. THIS SITE PLAN IS BASED ON AERIAL PHOTO DATA.
 3. ALL CURB CUTS AND TRAFFIC SIGNALS SHOWN, EXISTING AND PROPOSED, MUST BE VERIFIED.

DRAWING ISSUE/REVISION RECORD

DATE	REVISION	INITIALS
11/23/20	SCHEME 1	JKM

ALBUQUERQUE NM
98TH STREET
& VOLCANO ROAD

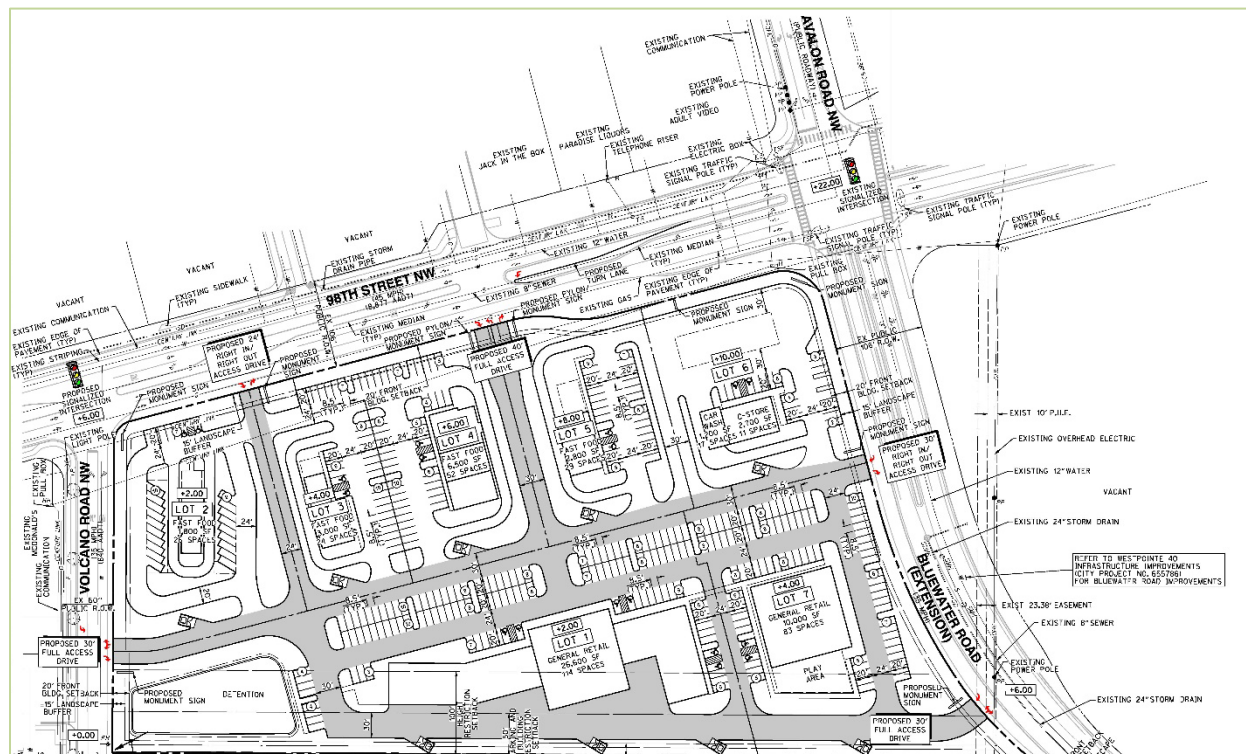


SCHEME 1

4.3 Trip Generation

Institute of Transportation Engineers Trip Generation, 10th Edition (ITE, 2017) was used to estimate traffic generated by the proposed development. The peak of the adjacent street was selected for the calculations indicative of urban/suburban traffic patterns for typical AM and PM peak periods (i.e., 7-9 a.m., 4-6 p.m., respectively). The proposed land uses consist of restaurants and an automotive service. An early conceptual plan was prepared for preliminary planning purposes illustrating the approximate scale of the individual uses as shown in Figure 6. While this plan is not being advanced for development, the estimated building footprints were useful for traffic estimating purposes.

Figure 6: Conceptual Site Layout



The following steps and assumptions were applied to the data:

1. The “peak hour of the adjacent street traffic” was the criterion selected for the calculations as this would most likely be impacted by site traffic during typical AM and PM peak periods given the characteristics of the proposed land uses. In the vicinity of the site, 98th St. is urban/suburban in nature and thus “general urban/suburban” data were selected;
2. Gross floor area (GFA) was used for the independent variable;
3. Fitted equations were applied if available, otherwise average rates were used;
4. Internal capture trips (ICT) were calculated using the National Cooperative Highway Research Program (NCHRP) Report 684;
5. Pass-by or internal capture trips were not inherent to the proposed use and thus did not apply;
6. Pass-by trips were calculated by ITE methodology and deducted from the existing through traffic;
7. Transit trip reductions were not accounted for as service is not currently available and the proposed uses are not considered highly conducive to transit or pedestrian access.

Parcel D is proposed as a small-shell coffee shop with drive-through window and no indoor seating, though some outdoor seating may be provided. The trip generation rate for ITE Land Use 938 was derived for small kiosks and therefore the proposed site is outside of the scale for this land use category. A study conducted by K.D. Anderson & Associates, Inc. was conducted for three existing Dutch Brothers coffee stores with similar characteristics to the proposed site wherein trip generation rates were derived per 1,000 vehicles per day as the independent variable. This data was applied to at least one other site in the Albuquerque area, and thus was utilized to estimate trips for this site. The calculated site traffic volume estimates are contained in Appendix C and summarized in Table 2 below.

Table 2: Estimated Site Trip Generation

Description	ITE Code	Quant.	Units	Daily Total	AM			PM		
					Enter	Exit	Total	Enter	Exit	Total
Parcel A: Fast Food w/Drive-Thru	934	2.7	GFA ¹	1272	56	53	109	46	42	88
Parcel B: Fast Food w/Drive-Thru	934	2.8	GFA ¹	1319	58	55	113	47	44	91
Parcel C: Fast Food w/Drive-Thru	934	6.5	GFA ¹	3061	133	128	261	110	102	212
Parcel D: Coffee w/Drive-Thru no seat.	938	37.0	(2)	---	64	60	124	27	29	56
Parcel E: Fast Food w/Drive-Thru	934	1.8	GFA ¹	848	37	35	72	31	28	56
Parcel F: Automobile Care Center	942	36.6	GFA ¹	---	54	28	82	48	52	100
Total (unadjusted)				6500	402	359	761	309	297	606
-Internal Capture Trips					0	0	0	0	0	0
-Pass-By Trips ³					-137	-137	-274	-113	-113	-226
Volume Added to Adjacent Street					265	222	487	196	184	380

¹Gross Floor Area, per 1,000 square feet.

²Per 1,000 daily vehicles of adjacent street traffic.

³Included with driveway volumes but deducted from through traffic on adjacent street.

4.4 Site Traffic Distribution and Assignment

Distribution of proposed site trips was made in proportion to the directional distribution percentages inherent to the corridor at the external nodes as derived from the adjusted traffic counts shown in Figures 2 and 3 and summarized in Table 1. Those distribution percentages were applied to the estimated site trips in Table 2, and proposed trips were then assigned to 98th St., Bluewater Rd., and Volcano Rd. via the site driveways in the following proportions:

1. Site Driveway 1 = 15%;
2. Site Driveway 2 = 25%;
3. Site Driveway 3 = 25%;
4. Site Driveway 4 = 35%.

These trips were assigned by the above percentages using the TIA module in the traffic analysis software. A higher percentage was applied at Driveway 4 because southbound traffic has better access via the traffic signal at Bluewater/Avalon. The distributed trips and resulting intersection peak hour volumes are shown in the map views as well as on the "Future Volume" rows in the level of service worksheets contained in Appendix D.

5.0 FUTURE TRAFFIC CONDITIONS

5.1 Background Traffic Projection

The project was initiated in 2021, and adjustments attributed to COVID-19 closures were applied to existing traffic to establish the baseline condition for analysis. Construction and project opening is projected to be completed by year 2025, which was established as the Implementation Year. A Horizon Year analysis typically incorporates the Implementation Year plus 10 years, thus traffic was projected to year 2035.

Average Week Day Traffic (AWDT) data and recorded traffic volume counts were obtained from the MRCOG Transportation Analysis & Querying Application (TAQA). Historic traffic volumes are summarized in Table 3 below.

Table 3: Historic Traffic Volumes (AWDT)

Year	98 th St. South of I-40
2009	26621
2010	26222
2011	25881
2012	30989
2013	30493
2014	30493
2015	34670
2016	35987
2017	37900
2018	39900
2019	37000

Trend line analysis was used to calculate growth rates as follows.

1. 98th St.:
 - a. Annualized compound growth rate between 2009 and 2019 was 3.35%;
 - b. An annual rate calculated by trend line analysis yielded a rate of 4.58%;
 - c. Because the trend line had a high degree of correlation, it was considered a reliable measure; nevertheless, it is uncertain if this rate can be sustained indefinitely;
 - d. While the area along the 98th St. corridor is mostly developed, much vacant land remains in the vicinity and 98th St. is a principal arterial serving regional traffic, and thus further growth could be expected.
 - e. A rate of +3.0% per year was selected for analysis, yielding growth factors of 1.13 and 1.51 for the implementation and horizon years, respectively.
2. Adjacent Streets:
 - a. A growth rates of 1.0% per year was applied Central Ave. yielding growth factors of 1.04 and 1.15 for the implementation and horizon years, respectively;
 - b. Insufficient historical data was available to forecast Bluewater traffic, but the eastern portion is mostly developed; therefore the minimum growth rate of 0.5% per year was applied and estimated trips from the Westpointe Industrial Park were added as part of the background traffic.
 - c. Trends exhibited by the I-40 ramps varied and several growth rates were applied.

The calculated growth factors were input into the traffic models and applied to through traffic movements to expand background traffic volumes for analysis of the forecast traffic scenarios (see Appendix B for historic traffic data and projections). It should also be noted that the calculated growth rate was not indicative of statewide economic and related traffic growth but reflected local and regional activity in recent years. The recession associated with COVID-19 pandemic closures could be expected to negatively impact economic growth and therefore this growth rate may not be expected to continue unaltered but may result in a somewhat conservative traffic forecast estimate. In addition, the software expands the background plus site traffic, providing for additional conservatism in the traffic estimates.

6.0 TRANSPORTATION ANALYSIS

6.1 Site Traffic Operations Analysis

Intersection “nodes” constrain the capacity of a roadway segment, and therefore the baseline capacity of the study intersections were analyzed using the *Highway Capacity Manual 6th Edition (HCM)* methodology. The Level of Service (LOS) for an intersection is determined by the computed or measured delay and is defined for each minor movement at signalized, unsignalized, and roundabout intersections. LOS is assigned a letter grade from A (best) through F (worst), as summarized in Table 4 for signalized and unsignalized intersections. Signalized intersections have higher levels of delays due to higher volumes and driver expectation of greater delays. LOS D is generally considered acceptable in urban areas with right-of-way constraints; however, COA DPM Table 7.5.88 provides additional LOS criteria by location and corridor type. 98th St. is an arterial outside of any activity centers, thus LOS D is the threshold.

Table 4: Intersection Level of Service (LOS) Criteria (HCM 6th Ed.)

LOS ¹	Signalized Control Delay (sec/veh)	Unsignalized Control Delay (sec/veh)
A	0 – 10	0 – 10
B	10 – 20	10 – 15
C	20 – 35	15 – 25
D	35 – 55	25 – 35
E	55 – 80	35 – 50
F	> 80	> 50

¹For Volume-to-Capacity Ratio (V/C) ≤ 1.0; LOS = F for V/C > 1.

Synchro 10 software package by *Trafficware Ltd.* was utilized to compute the results in HCM format. Traffic signal timing settings for the signalized intersections on 98th St. were provided by COA Traffic Engineering staff and input into the traffic models for analysis. These intersections are currently coordinated and therefore the appropriate time-of-day plans were used for the peak analyses. Capacity analyses were computed using the same, systematic method so results could be compared for these alternative scenarios:

- Scenario 1: Existing Traffic (2021)** – represents existing conditions prior to development of the site with traffic collected during COVID-19-related closures in April 2021.
- Scenario 2: Baseline (2021)** – baseline traffic adjusted to represent “normal” conditions without COVID-19 impacts, representing the baseline for analysis.
- Scenario 3: Implementation Year NO-Build (2025)** – baseline conditions plus background traffic growth without development, representing the implementation year operating conditions (includes Westpointe Industrial Park phases 1 and 2).

4. **Scenario 4: Implementation Year BUILD (2025)** – existing traffic plus background traffic growth and completion of development.
5. **Scenario 5: Horizon NO-Build (2035)** – existing traffic conditions plus background traffic growth without development, representing the horizon year operating conditions (includes Westpointe Industrial Park phases 1 through 3).
6. **Scenario 6: Horizon BUILD (2035)** – forecast conditions including background traffic growth and site traffic, to assess forecast traffic operations with developed conditions.

Computed results are contained in Appendix D and summarized in Table 5.

Table 5: LOS Summary for Alternative Concepts*

Scenario	Intersection	AM Peak						PM Peak					
		Intersection		Max. (worst-case movement)				Intersection		Max. (worst-case movement)			
		Delay	LOS	V/C	Delay	LOS	Dir.	Delay	LOS	V/C	Delay	LOS	Dir.
Baseline (2021)	1 – Existing Traffic												
	98 th /Central	43.4	D	0.92	45.1	D	NBT	28.2	C	0.85	63.7	E	WBL
	98 th /Volcano	0.8	(3)	0.081	102.8	F	WBL	1.3	(3)	0.322	110.1	F	WBL
	98 th /Bluewater	22.3	C	0.73	16.5	B	NBT	20.3	C	0.83	75.3	E	EBL
	98 th /I-40 South	0.2	(3)	0.031	15.8	C	EBL	0.3	(3)	0.107	50.7	F	EBL
	98 th /I-40 North	34.9	C	0.86	55.7	E	WBL	28.9	C	0.90	32.0	C	WBL
	Bluewater/90 th	9.6	(3)	0.365	13.2	B	NBL	7.8	(3)	0.257	13.2	B	SBT
	2 – Baseline Traffic (Adjusted)												
	98 th /Central	77.1	E	1.13	103.9	F	NBT	28.2	C	0.85	63.7	E	WBL
	98 th /Volcano	1.2	(3)	0.187	194.5	F	WBL	1.9	(3)	0.566	234.4	F	WBL
	98 th /Bluewater	32.9	C	0.95	39.8	D	NBR	23.0	C	0.96	104.5	F	EBL
	98 th /I-40 South	0.3	(3)	0.067	22.6	C	EBL	0.5	(3)	0.220	92.8	F	EBL
	98 th /I-40 North	34.3	C	0.88	53.0	D	WBL	29.1	C	0.90	30.5	C	WBL
	Bluewater/90 th	11.8	(3)	0.532	17.3	C	NBL	8.2	(3)	0.297	14.1	B	SBT
Implementation Year (2025)	3 – Implementation Year NO-Build												
	98 th /Central	113.7	F	1.28	166.3	F	NBT	30.0	C	0.88	67.9	E	WBL
	98 th /Volcano	1.6	(3)	0.344	388.6	F	WBL	1.9	(3)	0.566	234.4	F	WBL
	98 th /Bluewater	55.9	E	1.09	78.8	F	NBR	24.4	C	0.96	104.5	F	EBL
	98 th /I-40 South	0.3	(3)	0.086	27.1	D	EBL	0.7	(3)	0.340	153.8	F	EBL
	98 th /I-40 North	34.0	C	0.89	52.8	D	WBL	29.4	C	0.91	29.7	C	WBL
	Bluewater/90 th	15.2	(3)	0.672	25.9	D	NBL	8.3	(3)	0.305	14.2	B	SBT
	4 – Implementation Year BUILD												
	98 th /Central	143.7	F	1.39	217.8	F	NBT	31.2	C	0.88	67.9	E	WBL
	98 th /Volcano	6.3	(3)	1.74	1155.2	F	WBL	3.9	(3)	1.007	406.1	F	WBL
	98 th /Bluewater	63.2	E	1.13	92.9	F	NBR	26.2	C	0.98	111.8	F	EBL
	98 th /I-40 South	0.3	(3)	0.100	30.9	D	EBL	0.9	(3)	0.411	197.9	F	EBL

	98 th /I-40 North	34.0	C	0.89	52.7	D	WBL	29.7	C	0.91	29.1	C	WBL
	Bluewater/90 th	15.6	(3)	0.687	27.2	D	EBL	8.4	(3)	0.316	14.6	B	SBT
	Site1/Volcano	3.2	(3)	0.014	9.8	A	SBL	1.5	(3)	0.019	9.9	A	SBL
	Site2/98 th	1.3	(3)	0.551	51.0	F	WBR	0.4	(3)	0.192	16.5	C	WBR
	Site3/98 th	7.6	(3)	2.016	1362.3	F	WBL	2.5	(3)	0.874	500.3	F	WBL
	Site4/Bluewater	4.2	(3)	0.211	11.1	B	NBL	1.5	(3)	0.019	9.9	A	SBL
Horizon Year (2035)	5 – Horizon NO-Build												
	98 th /Central	230.8	F	1.70	357.1	F	NBT	60.5	E	1.12	75.8	F	SBT
	98 th /Volcano	5.3	(3)	1.649	2305.8	F	WBL	7.4	(3)	2.27	1476.4	F	WBL
	98 th /Bluewater	154.9	F	1.49	244.6	F	NBR	32.1	C	1.02	119.8	F	EBL
	98 th /I-40 South	0.5	(3)	0.177	50.4	F	EBL	3.6	(3)	1.318	904	F	EBL
	98 th /I-40 North	33.6	C	0.90	52.5	D	WBL	31.8	C	0.93	28.5	C	WBL
	Bluewater/90 th	36.4	(3)	0.993	81.5	F	NBL	11.1	(3)	0.537	17.2	C	SBT
	6 – Horizon BUILD												
	98 th /Central	273.2	F	1.86	427.0	F	NBT	75.0	E	1.19	103.8	F	SBT
	98 th /Volcano	54.2	(3)	17.31	####	F	WBL	19.3	(3)	4.64	####	F	WBL
	98 th /Bluewater	158.0	F	1.51	251.3	F	NBR	30.2	C	1.03	124.7	F	EBL
	98 th /I-40 South	0.5	(3)	0.215	62.6	F	EBL	4.5	(3)	1.647	####	F	EBL
	98 th /I-40 North	33.7	C	0.91	52.5	D	WBL	33.5	C	0.94	29.0	C	WBL
	Bluewater/90 th	18.1	(3)	0.753	32.9	D	NBT	8.6	(3)	0.341	15.2	C	SBT
	Site1/Volcano	3.1	(3)	0.014	9.8	A	SBL	1.4	(3)	0.019	10.0	B	SBL
	Site2/98 th	3.7	(3)	1.026	189.4	F	WBR	0.4	(3)	0.269	22.8	C	WBR
	Site3/98 th	25.8	(3)	8.07	####	F	WBL	8.9	(3)	3.495	####	F	WBL
	Site4/Bluewater	4.1	(3)	0.213	11.1	B	NBL	3.3	(3)	0.184	11.2	B	NBL

*Notes:

1. Delay is measured in seconds/vehicle
2. V/C = volume-to-capacity ratio for traffic movement
3. Only critical movement LOS at unsignalized intersections is reported (#### exceeds 3 digits).

6.2 Queueing Summary

Queue length measurements are useful in evaluating traffic operations and for determination of turn lane storage requirements. As shown in the *HCM Guide*, “The 95th-percentile queue is defined to be the queue length (in vehicles) that has only a 5-percent probability of being exceeded during the analysis time period.” A procedure for calculating queues is provided in the HCM and computations are included in the LOS worksheets in Appendix D. A summary of queues is provided in Table 6 for key turning lane groups that could be impacted with site traffic in the implementation year.

Table 6: Calculated 95th Percentile Queue Lengths

Intersection	Movement	Available Storage ¹	Scenario 3 Queue ²		Scenario 4 Queue ²	
			AM	PM	AM	PM
Central	EBL	7 (165')	8.4*	5.6	9.3*	5.9
Central	SBL	4 (90')	2.1	3.2	2.4	3.6
Bluewater	NBR	--- ³	26.4	17.3	0.0	0.0
Bluewater	SBL	8 (200')	2.4	0.6	2.4	3.6
Bluewater	WBL	13 (330')	1.5	2.9	4.2	6.1
I40 North	NBL	4 (100')	2.0	3.7	2.1	4.2*

¹Storage length per number of vehicles at an average of 25' per vehicle (feet in parenthesis).

²Calculated 95th Percentile queue per HCM procedures, listed in number of vehicles.

³NBR is shared with 3rd NBT lane which transitions 175' south of Bluewater.

*Exceeds available storage.

Queues that may require mitigation were identified at the following locations:

1. Central Ave. EBL – existing calculated queues exceed available storage in the AM peak periods, with the increase of less than one vehicle per lane attributed to site development. Mitigation analysis will evaluate whether timing adjustments could improve this condition.
2. Bluewater Rd. NBR – this movement is part of the shared lane group for the existing northbound direction. Provision of a NBR lane would improve this operation, though the NBR queue would likely be blocked by northbound traffic positioning for the N-to-E ramp at I-40.
3. NBL at I-40 North Ramp – the adjusted baseline traffic plus site traffic would be within the storage limit plus transition area.

6.3 Assessment of Impacts

Conclusions drawn from the results of these capacity analyses include:

1. Heavy directional NBT flows at Central Ave. in the AM lead to deficient LOS that becomes progressively worse; SBT also fell below LOS D for the horizon build scenario.
2. 98th/Bluewater/Avalon may also be expected to fall below LOS D by the Implementation Year No-Build with additional delay for the Build scenario.
3. Several lane groups experience high delays with poor LOS and exceeding v/c ratio of 1.0.
4. The Bluewater/90th intersection did not fall below LOS D.
5. Right turns onto 98th St. from site driveway 2 experienced extremely high delays in the AM peak due to the high through volumes on 98th St.
6. Left turns onto 98th St. at Volcano and site driveway 3 experienced extremely high delays due to the high through volumes on 98th St.
7. Site driveway 1 on Volcano and driveway 4 on Bluewater showed satisfactory LOS.
8. The EBL movement at the I-40 South Ramp experiences high levels of delay given the amount of through traffic on 98th St.; the availability of a median refuge facilitates access (though this operation was not modeled).
9. The WBL movement at I-40 North Ramp is configured with a shared through/left-turn lane, and operated satisfactorily under all scenarios.

Because intersection LOS fell below acceptable levels for some scenarios, mitigation measures were evaluated to resolve operational deficiencies as described in Section 6.4 below.

6.4 Mitigation Analysis

Based upon the results summarized in Tables 5 and 6, additional scenarios were analyzed to evaluate mitigation measures that would address operational deficiencies identified in the Horizon Year. These scenarios are described below and summarized in Table 7 (see Appendix E for LOS worksheets).

1. Mitigation Scenario 1 (MIT1) – Signal Timing Optimization Plus. Signalized intersections along 98th St. are coordinated, though coordinated phase numbers differ between the City and NMDOT intersections. Signal timing and offset optimization was run for this scenario to evaluate whether the corridor operations could be improved. In addition, recommended mitigation measures from the referenced traffic studies were incorporated as follows.
 - a. Milagro and Westpointe studies recommended signal timing adjustments to improve operations.
 - b. Westpointe added the following recommendations:
 - i. Add a NB thru lane on 98th from south of Central to Bluewater;
 - ii. Add a SB right-turn lane on 98th at Central and right-turn overlap signal phase;
 - iii. Convert existing NB right-turn lane at Bluewater to a shared through/right-turn (T/R) lane.
 - c. Network cycle lengths of C = 150s for AM peak and C = 145/100s for PM peak were determined to be optimal for throughput on 98th from Central to Bluewater:
 - i. The I-40 North Ramp signal was set to Actuated-Uncoordinated mode;
 - ii. Additional adjustments to the east-west phases may be needed to improve LOS for the left turns.
 - d. This scenario improved signal operations above the Horizon Build as summarized in Table 7; however, Central and Bluewater/Avalon intersections were below LOS D.
2. Mitigation Scenario 2 (MIT2) – Add NBR at 98th/Bluewater. The existing third NB lane is a shared T/R lane and currently serves as a transitional through-lane for access to the N-E ramp at I-40.
 - a. The Westpointe study recommended conversion of the existing NB right-turn lane at Bluewater to a shared through/right-turn (T/R) lane.
 - b. Extension of this third through lane is essential to improve the operation of the corridor during the AM peak in particular.
 - c. Addition of a NBR lane would reduce the NBT and NBR delay, improving overall operations and yielding 95th percentile queues of 0.1 vehicles in the AM and 0.0 vehicles PM for the NBR.
 - d. Queue blocking by NBT traffic could impact the NBR during the most intense portion of the AM peak, but operations would benefit throughout the remainder of daily service.
 - e. Network cycle lengths of C = 160s for AM peak and C = 140/100s for PM peak were determined in Year 2035 to be optimal for throughput on 98th from Central to Bluewater:
 - i. The 98th/Bluewater/Avalon intersection shows higher delay than the Horizon Build due to a longer cycle length; however, the natural or equilibrium cycle is 150s for this intersection which more closely approximates the optimized timing plan.
 - ii. The I-40 North Ramp signal was set to Actuated-Uncoordinated mode;
 - iii. Additional adjustments to the east-west phases or lane modifications may be needed to improve LOS for the left turns.
 - f. Addition of the NBR helped improve signalized operations above the Horizon Build as summarized in Table 7.

Table 7: LOS Summary for Mitigation Scenarios

	AM Peak						PM Peak					
	Intersection		Max. (worst-case movement)				Intersection		Max. (worst-case movement)			
Intersection	Delay	LOS	V/C	Delay	LOS	Dir.	Delay	LOS	V/C	Delay	LOS	Dir.
Mitigation Scenario 1 (2035)												
98 th /Central	59.8	E	1.05	65.9	F	NBT	47.2	D	0.92	88.2	F	WBL
98 th /Bluewater	65.6	E	1.16	85.0	F	NBR	50.2	D	1.36	268.1	F	EBL
98 th /I-40 North	43.2	D	0.91	55.2	E	WBL	31.8	C	0.94	27.1	C	WBL
Mitigation Scenario 2 (2035)												
98 th /Central	54.8	D	1.02	59.8	F	NBT	33.7	C	0.93	88.5	F	WBL
98 th /Bluewater	38.1	D	1.07	38.8	F	NBT	53.4	D	1.42	294.5	F	EBL
98 th /I-40 North	46.1	D	0.91	58.9	E	WBL	31.8	C	0.94	27.1	C	WBL

7.0 SITE ACCESS REQUIREMENTS

As illustrated in the Proposed Site Scheme (Figure 5), four access points are proposed to provide ample circulation and queuing space on site for the drive-through businesses.

7.1 Site Drive 1

1. A 2-lane commercial access
2. Perpendicular to and aligned with the site driveway on the south side of Volcano Rd.

7.2 Site Drive 2

1. A 2-lane commercial right-in/right-out (RIRO) access.
2. Perpendicular to 98th St.

7.3 Site Drive 3

1. A 3-lane commercial access with one ingress lane and two egress lanes for left- and right-turns.
2. Perpendicular to and aligned with the commercial driveway on the west side of 98th St.

7.4 Site Drive 4

1. A 2-lane commercial access.
2. Perpendicular to and aligned with the site driveway on the north side of Bluewater Rd.
3. Curb returns should be designed to accommodate trucks per DPM TABLE 7.4.48, and possibly expanded to accommodate a WB-67 vehicle if appropriate.

7.5 General Driveway Requirements

1. The proposed driveways along 98th St. meet the spacing criteria of DPM TABLE 7.4.45 and TABLE 7.4.46.
2. Curb returns shall be provided as per DPM §7-4(B)(5)(i).
3. Dimensional criteria are as per DPM §7-4(B)(5)(ii) and §7-4(B)(5)(iii).

7.6 Off-Site Improvements

1. Extend the third NBT lane southward to the return at Volcano Rd.
2. The extension of the third NBT lane southward through Central Ave. should be accomplished through a future project as also recommended in the Westpointe study (see Section 9).
3. Provide a 6' buffered bike lane along the outside of the NBT lane.

4. Provide a NBR turn lane at 98th/Bluewater Rd. per the turn lane warrant criteria of COA DPM TABLE 7.4.67.
 - a. Mitigation Alternative 2 (NBR added) showed minimal queueing; however, NBT traffic queues will be extensive in the AM peak and partially block access to the NBR.
 - b. It is therefore recommended that this NBR turn lane be designed to accommodate the minimum deceleration requirement per DPM §7-4(l)(7)(iii)(d) with consideration of geometric or other constraints. Based on the proposed location of Site Driveway 3, this would be limited to an approximately 200' lane plus 115' transition; this should be modified as needed.
 - c. Truck turning templates should be accommodated on the receiving leg of Bluewater Rd.
 - d. Provide bike lane markings through the lane transition.
5. Provide a 6' sidewalk with buffer along the property frontage.
6. Modify existing traffic signal mastarm and appurtenances in the southeast quadrant of the intersection as needed to accommodate the NBR lane:
 - a. Some rerouting of electrical conduit plant will be required.
 - b. Install new or relocate existing pedestal poles for pedestrian signals to meet ADA requirements at the pedestrian ramps.
 - c. Existing mastarm may remain if it is set back beyond return radius.
 - d. Supplemental signing should be posted on the north side mastarm denoting access to I-40 via the outer NBT lane.
7. Provide a SBL turn lane to Site Driveway 3 within the existing median, approximately 100' in length plus transition; the transition may be accomplished as a "back-to-back" transition beginning at the existing NBL turn lane transition if necessary.
8. Provide complementary signing and/or pavement markings for the new turn lanes.

8.0 SUMMARY OF FINDINGS

Key findings of this analysis are summarized as follows:

1. For existing (baseline) conditions, Levels of service (LOS) at traffic signalized intersections along 98th St. are within the acceptable range though certain lane groups currently exceed capacity thresholds of delay or volume to capacity (v/c) limits.
2. Site-generated traffic is not expected to cause significant, adverse impacts to the adjacent roadway network, including the traffic signalized intersections along 98th St., but will incrementally increase delay.
3. The 98th St. corridor from Central Ave. to I-40 acts as a commuter route serving residential areas in southwest Albuquerque to other areas of the city.
4. This corridor has seen a consistent high growth trend which may continue indefinitely given the amount of vacant lands in the vicinity.
5. Sustained traffic growth in the region will exacerbate these conditions and necessitate improvements by Year 2025 including:
 - a. Expansion of 98th St. to a 6-lane arterial;
 - b. Traffic signal timing improvements to optimize throughput and traffic progression;
 - c. Intersection improvements to add turn lanes and/or extend queue storage.
6. Regional improvements will also be necessary to alleviate congestion on 98th St. in the near term. A review of the Transportation Improvement Program (TIP) prepared by MRCOG revealed at least two projects slated for implementation in the vicinity.

9.0 RECOMMENDATIONS & MITIGATION MEASURES

This analysis has demonstrated that the 98th St. corridor from Central Ave. to I-40 is experiencing rapid growth and is in need of near-term improvements. Significant detrimental traffic impacts associated with the proposed commercial development project are not expected to occur on the adjacent transportation system. The following recommendations are offered regarding on- and off-site access modifications.

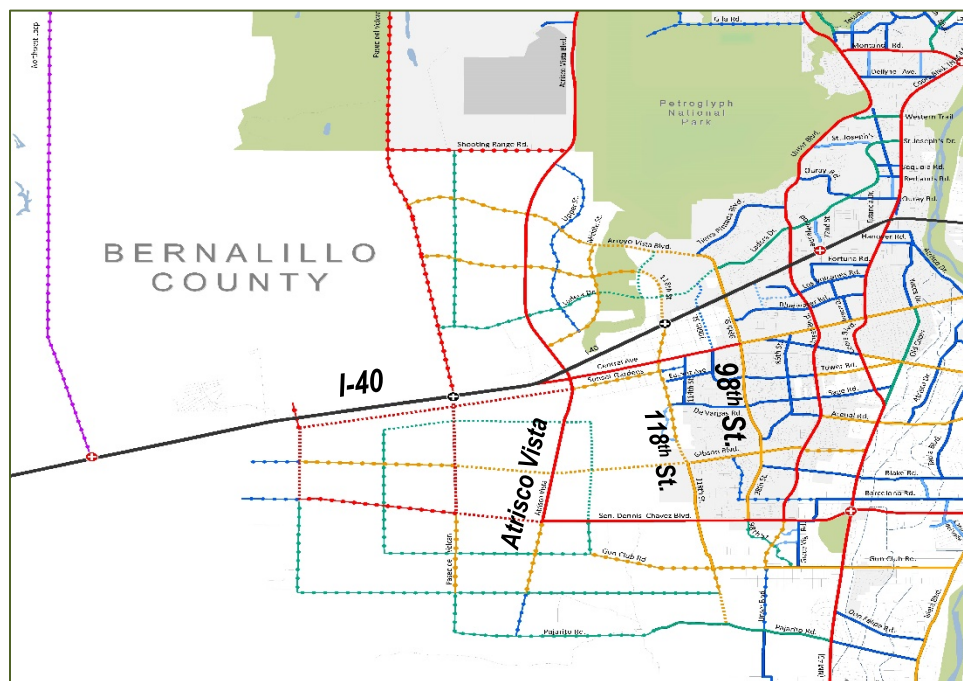
9.1 On-Site Access Roads

1. Four access driveways are proposed to provide ample circulation and queueing space on site for the drive-through businesses as illustrated in Figure 5 and detailed in Section 7.1 of this report.
2. These driveways will be designed in accordance with City of Albuquerque Development Process Manual (COA DPM) requirements.

9.2 Off-Site Roadway Improvements

1. Extension of the third northbound through (NBT) lane and buffered bike lane along the property frontage from Bluewater Rd to the Volcano Rd. return.
2. Addition of a northbound right-turn (NBR) lane at 98th/Bluewater Rd. and accommodation of turning trucks.
3. Installation of buffered sidewalk along the property frontage.
4. Provision of a southbound left-turn (SBL) lane on 98th St. at Site Driveway 3.
5. Widening of 98th St. to a 6-lane arterial roadway will be necessary in the near term to accommodate sustained growth in the region. The intersection is projected to exceed capacity by the Implementation Year 2025 based on background traffic growth and current signal timings. As recommended in the Westpointe Industrial Park traffic impact study (TIS) and as validated in this study, these improvements should be done under a separate project to include:
 - a. Extension of the third northbound through lane (NBT) southward through the Central Ave. intersection.
 - b. Addition of a SB right-turn lane on 98th at Central and right-turn overlap signal phase.
 - c. Based on the Horizon Year (2035) traffic projection, intersection approach traffic volumes were tabulated to calculate the percentage of site traffic as a proportion of the total (see Appendix F), yielding:
 - i. 5% in the AM peak hour
 - ii. 3% in the PM peak hour
 - d. A fair share contribution from the developer should be established based on these percentage as a contribution to the 98th/Central intersection improvements.
6. Other transportation improvements that have been identified in the TIP and illustrated in Figure 7 should be advanced to alleviate congestion along 98th St. and to provide enhanced mobility in the region, including:
 - a. 118th St. from Eucariz Ave. to I-40 (MPO #526.4 & 526.7) – shown as a “near term” project.
 - b. 118th St. Interchange at I-40 (MPO #526.7) – listed as a “late term” project.

Figure 7: Future Network Roadway Extensions



APPENDIX A

Traffic Scoping Requirements



Minutes

To: Distribution
From: Timothy D. Simmons, PE, PTOE
Date: February 24, 2021
Re: Scoping Meeting – Traffic Impact Study for 98th/Bluewater Commercial Development

A virtual meeting was held on this date to discuss the traffic study requirements for the proposed project located in the southwest quadrant of the 98th St./Bluewater Rd. intersection in Albuquerque, NM. This scoping meeting was held in accordance with the City of Albuquerque (COA) Development Process Manual (DPM). The following individuals participated:

- Matthew Grush, PE – COA Traffic Engineer
- Margaret Haynes, PE – NMDOT District 3 Assistant Traffic Engineer
- Brad Julian, PE – NMDOT Traffic Technical Support Engineer
- Ashley Klein – Red Sky Development, LLC
- Tim Simmons, PE, PTOE – Transportation and Traffic Engineer
- With reference to the previously emailed Traffic Scoping Form (TSF), Tim provided an overview of the project location, conceptual site plan, and proposed land uses consisting of retail space, a gas station with convenience market, and several fast-food restaurants with drive-through lanes.
- Proposed site land uses:
 - Land Use 820 Shopping Center (retail) may over-estimate trips, will be changed to Office which includes light retail.
 - Land Use 945 Gas Station with Convenience Market may have to be upgraded to Super Convenience Center (LU960) if the building size or number of pumps meet the definition.
 - Build-out period is estimated at 5 years for the implementation year; horizon year will be implementation plus 10 years.
 - Ashley noted that new version of the conceptual site plan is being developed.
- Study intersections will include:
 - 98th/Central Ave.
 - 98th/Bluewater Rd.
 - I-40 north & south ramp terminals.
 - Bluewater/90th St.
- Access considerations:
 - Proposed driveways look consistent with COA standards.
 - Driveways should align with existing opposing driveways on Volcano and Bluewater.
 - The median on Bluewater at 98th is established for left turn storage and should not be altered.
- Other issues:
 - Avalon Rd. west of 98th St. is in the jurisdiction of Bernalillo County; Tim will contact Julie Luna to coordinate their review.
 - A Maverick gas station is under construction on the north side of Bluewater Rd. Phase II of this development called Westpoint 40 will commence soon. Margaret will forward a copy of the traffic study to Tim for coordination.

- Peak period turning movement counts (TMCs) will be collected at the intersections listed above. Pre-COVID count data up to year 2018 may be available via the MRCOG interactive web site for use in adjusting the peak data.

END OF MEETING MINUTES

These meeting minutes represent a summary of the items discussed. Any corrections or revisions should be directed to the author within 5 business days, after which time they will be considered as final.

Prepared by:

February 25, 2021

Date:

Distribution: Attendees

APPENDIX B
Existing & Projected Traffic Data
-Traffic volumes
-Forecast Volumes
-Existing Signal Timings

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development

Turning Movement Count

Traffic Impact Analysis

File Name : 1_98th-Central

Site Code : 1

Start Date : 4/8/2021

Page No : 1

Groups Printed- Cars - Trucks

Start Time	98TH ST From North					CENTRAL AVE From East					98TH ST From South					CENTRAL AVE From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	11	86	17	0	114	18	25	25	0	68	4	279	45	0	328	42	35	8	0	85	595
07:15 AM	12	86	22	0	120	19	19	26	0	64	6	330	78	2	416	48	28	10	0	86	686
07:30 AM	9	90	28	0	127	18	29	31	0	78	5	386	67	0	458	57	46	5	0	108	771
07:45 AM	13	131	22	0	166	29	28	28	0	85	7	298	73	0	378	58	33	4	1	96	725
Total	45	393	89	0	527	84	101	110	0	295	22	1293	263	2	1580	205	142	27	1	375	2777
08:00 AM	10	107	27	0	144	22	34	38	0	94	7	281	45	0	333	46	26	4	0	76	647
08:15 AM	14	90	26	0	130	18	40	32	0	90	8	269	38	0	315	55	37	9	0	101	636
08:30 AM	19	118	30	0	167	22	26	33	0	81	7	253	51	1	312	54	29	7	0	90	650
08:45 AM	22	91	26	0	139	28	33	26	0	87	4	202	44	0	250	37	38	7	0	82	558
Total	65	406	109	0	580	90	133	129	0	352	26	1005	178	1	1210	192	130	27	0	349	2491
*** BREAK ***																					
04:00 PM	25	229	41	0	295	92	51	30	1	174	9	183	55	0	247	44	51	20	0	115	831
04:15 PM	28	215	45	0	288	73	68	24	0	165	7	172	63	0	242	54	52	20	0	126	821
04:30 PM	30	257	34	0	321	81	53	45	0	179	10	178	33	0	221	68	68	15	0	151	872
04:45 PM	27	272	39	1	339	96	87	48	0	231	6	186	67	0	259	45	70	14	0	129	958
Total	110	973	159	1	1243	342	259	147	1	749	32	719	218	0	969	211	241	69	0	521	3482
05:00 PM	27	269	50	0	346	67	75	30	0	172	7	215	65	0	287	44	50	27	0	121	926
05:15 PM	34	228	49	0	311	89	64	32	1	186	8	211	76	0	295	41	60	11	1	113	905
05:30 PM	20	254	63	0	337	76	71	33	0	180	8	169	58	0	235	59	33	10	0	102	854
05:45 PM	32	266	49	0	347	87	78	33	0	198	8	181	42	1	232	38	45	12	1	96	873
Total	113	1017	211	0	1341	319	288	128	1	736	31	776	241	1	1049	182	188	60	2	432	3558
Grand Total	333	2789	568	1	3691	835	781	514	2	2132	111	3793	900	4	4808	790	701	183	3	1677	12308
Apprch %	9	75.6	15.4	0		39.2	36.6	24.1	0.1		2.3	78.9	18.7	0.1		47.1	41.8	10.9	0.2		
Total %	2.7	22.7	4.6	0	30	6.8	6.3	4.2	0	17.3	0.9	30.8	7.3	0	39.1	6.4	5.7	1.5	0	13.6	
Cars	317	2777									3775										12039
% Cars	95.2	99.6	91.5	100	97.9	98.2	94.6	95.1	100	96.2	89.2	99.5	97.4	100	98.9	97.3	96.6	92.9	100	96.5	97.8
Trucks	16	12	48	0	76	15	42	25	0	82	12	18	23	0	53	21	24	13	0	58	269
% Trucks	4.8	0.4	8.5	0	2.1	1.8	5.4	4.9	0	3.8	10.8	0.5	2.6	0	1.1	2.7	3.4	7.1	0	3.5	2.2

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Turning Movement Count
Traffic Impact Analysis

File Name : 1_98th-Central
Site Code : 1
Start Date : 4/8/2021
Page No : 2

	98TH ST From North					CENTRAL AVE From East					98TH ST From South					CENTRAL AVE From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	12	86	22	0	120	19	19	26	0	64	6	330	78	2	416	48	28	10	0	86	686
07:30 AM	9	90	28	0	127	18	29	31	0	78	5	386	67	0	458	57	46	5	0	108	771
07:45 AM	13	131	22	0	166	29	28	28	0	85	7	298	73	0	378	58	33	4	1	96	725
08:00 AM	10	107	27	0	144	22	34	38	0	94	7	281	45	0	333	46	26	4	0	76	647
Total Volume	44	414	99	0	557	88	110	123	0	321	25	1295	263	2	1585	209	133	23	1	366	2829
% App. Total	7.9	74.3	17.8	0		27.4	34.3	38.3	0		1.6	81.7	16.6	0.1		57.1	36.3	6.3	0.3		
PHF	.846	.790	.884	.000	.839	.759	.809	.809	.000	.854	.893	.839	.843	.250	.865	.901	.723	.575	.250	.847	.917
Cars	36	408	90	0	534	82	98	114	0	294	24	1292									
% Cars	81.8	98.6	90.9	0	95.9	93.2	89.1	92.7	0	91.6	96.0	99.8	97.0	100	99.2	97.1	91.7	87.0	100	94.5	97.1
Trucks	8	6	9	0	23	6	12	9	0	27	1	3	8	0	12	6	11	3	0	20	82
% Trucks	18.2	1.4	9.1	0	4.1	6.8	10.9	7.3	0	8.4	4.0	0.2	3.0	0	0.8	2.9	8.3	13.0	0	5.5	2.9
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	30	257	34	0	321	81	53	45	0	179	10					68				151	
04:45 PM	27	272	39	1	339	96	87	48	0	231	6	186	67	0	259	45	70	14	0	129	958
05:00 PM	27	269	50	0	346	67	75	30	0	172	7	215	65	0	287	44	50	27	0	121	926
05:15 PM	34	228	49	0	311	89	64	32	1	186	8	211	76	0	295	41	60	11	1	113	905
Total Volume	118	1026	172	1	1317	333	279	155	1	768	31	790	241	0	1062	198	248	67	1	514	3661
% App. Total	9	77.9	13.1	0.1		43.4	36.3	20.2	0.1		2.9	74.4	22.7	0		38.5	48.2	13	0.2		
PHF	.868	.943	.860	.250	.952	.867	.802	.807	.250	.831	.775	.919	.793	.000	.900	.728	.886	.620	.250	.851	.955
Cars	116	1026	166	1	1309	331	273	152	1	757	28	787	238	0	1053	196	245	67	1	509	3628
% Cars	98.3	100.5	96.1	100	99.4	99.4	97.8	98.1	100	98.6	90.3	99.6	98.8	0	99.2	99.0	98.8	100	100	99.0	99.1
Trucks	2	0	6	0	8	2	6	3	0	11	3	3	3	0	9	2	3	0	0	5	33
% Trucks	1.7	0	3.5	0	0.6	0.6	2.2	1.9	0	1.4	9.7	0.4	1.2	0	0.8	1.0	1.2	0	0	1.0	0.9

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development

Turning Movement Count

Traffic Impact Analysis

File Name : 1_98th-Central

Site Code : 1

Start Date : 4/8/2021

Page No : 3

Groups Printed- Cars

	98TH ST From North					CENTRAL AVE From East					98TH ST From South					CENTRAL AVE From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	11	85	16	0	112	16	24	21	0	61	4	279	42	0	325	37	33	6	0	76	574
07:15 AM	10	84	20	0	114	18	19	24	0	61	6	330	78	2	416	48	26	7	0	81	672
07:30 AM	7	88	25	0	120	17	23	30	0	70	5	385	64	0	454	57	45	5	0	107	751
07:45 AM	12	131	20	0	163	29	26	24	0	79	7	297	71	0	375	53	27	4	1	85	702
Total	40	388	81	0	509	80	92	99	0	271	22	1291	255	2	1570	195	131	22	1	349	2699
08:00 AM	7	105	25	0	137	18	30	36	0	84	6	280	42	0	328	45	24	4	0	73	622
08:15 AM	14	89	21	0	124	17	33	32	0	82	5	266	37	0	308	53	34	8	0	95	609
08:30 AM	17	117	23	0	157	21	24	27	0	72	7	253	48	1	309	52	28	3	0	83	621
08:45 AM	20	89	17	0	126	27	29	26	0	82	1	198	44	0	243	37	38	6	0	81	532
Total	58	400	86	0	544	83	116	121	0	320	19	997	171	1	1188	187	124	21	0	332	2384

*** BREAK ***

04:00 PM	25	229	34	0	288	91	46	29	1	167	9	182	54	0	245	41	49	18	0	108	808
04:15 PM	27	214	42	0	283	73	63	24	0	160	5	168	61	0	234	54	50	20	0	124	801
04:30 PM	30	257	31	0	318	80	51	44	0	175	8	177	32	0	217	67	67	15	0	149	859
04:45 PM	26	272	39	1	338	96	85	47	0	228	6	186	67	0	259	45	69	14	0	128	953
Total	108	972	146	1	1227	340	245	144	1	730	28	713	214	0	955	207	235	67	0	509	3421
05:00 PM	26	269	48	0	343	66	73	29	0	168	7	214	63	0	284	43	49	27	0	119	914
05:15 PM	34	228	48	0	310	89	64	32	1	186	7	210	76	0	293	41	60	11	1	113	902
05:30 PM	19	254	63	0	336	76	71	31	0	178	8	169	57	0	234	59	33	10	0	102	850
05:45 PM	32	266	48	0	346	86	78	33	0	197	8	181	41	1	231	37	45	12	1	95	869
Total	111	1017	207	0	1335	317	286	125	1	729	30	774	237	1	1042	180	187	60	2	429	3535
Grand Total	317	2777	520	1	3615	820	739	489	2	2050	99	3775	877	4	4755	769	677	170	3	1619	12039
Apprch %	8.8	76.8	14.4	0		40	36	23.9	0.1		2.1	79.4	18.4	0.1		47.5	41.8	10.5	0.2		
Total %	2.6	23.1	4.3	0	30	6.8	6.1	4.1	0	17	0.8	31.4	7.3	0	39.5	6.4	5.6	1.4	0	13.4	

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development

Turning Movement Count

Traffic Impact Analysis

File Name : 1_98th-Central

Site Code : 1

Start Date : 4/8/2021

Page No : 4

	98TH ST From North					CENTRAL AVE From East					98TH ST From South					CENTRAL AVE From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	10	84	20	0	114	18	19	24	0	61	6	330	78	2	416	48	26	7	0	81	672
07:30 AM	7	88	25	0	120	17	23	30	0	70	5	385	64	0	454	57	45	5	0	107	751
07:45 AM	12	131	20	0	163	29	26	24	0	79	7	297	71	0	375	53	27	4	1	85	702
08:00 AM	7	105	25	0	137	18	30	36	0	84	6	280	42	0	328	45	24	4	0	73	622
Total Volume	36	408	90	0	534	82	98	114	0	294	24	1292	255	2	1573	203	122	20	1	346	2747
% App. Total	6.7	76.4	16.9	0		27.9	33.3	38.8	0		1.5	82.1	16.2	0.1		58.7	35.3	5.8	0.3		
PHF	.750	.779	.900	.000	.819	.707	.817	.792	.000	.875	.857	.839	.817	.250	.866	.890	.678	.714	.250	.808	.914

Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:30 PM

04:30 PM	30	257	31	0	318	80	51	44	0	175	8					67				149	
04:45 PM	26	272	39	1	338	96	85	47	0	228	6	186	67	0	259	45	69	14	0	128	953
05:00 PM	26	269	48	0	343	66	73	29	0	168	7	214	63	0	284	43	49	27	0	119	914
05:15 PM	34	228	48	0	310	89	64	32	1	186	7	210	76	0	293	41	60	11	1	113	902
Total Volume	116	1026	166	1	1309	331	273	152	1	757	28	787	238	0	1053	196	245	67	1	509	3628
% App. Total	8.9	78.4	12.7	0.1	310	43.7	36.1	20.1	0.1	186	2.7	74.7	22.6	0	293	38.5	48.1	13.2	0.2	113	902
PHF	.853	.943	.865	.250	.954	.862	.803	.809	.250	.830	.875	.919	.783	.000	.898	.731	.888	.620	.250	.854	.952

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development

Turning Movement Count

Traffic Impact Analysis

File Name : 1_98th-Central

Site Code : 1

Start Date : 4/8/2021

Page No : 5

Groups Printed- Trucks

	98TH ST From North					CENTRAL AVE From East					98TH ST From South					CENTRAL AVE From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	1	1	0	2	2	1	4	0	7	0	0	3	0	3	5	2	2	0	9	21
07:15 AM	2	2	2	0	6	1	0	2	0	3	0	0	0	0	0	0	2	3	0	5	14
07:30 AM	2	2	3	0	7	1	6	1	0	8	0	1	3	0	4	0	1	0	0	1	20
07:45 AM	1	0	2	0	3	0	2	4	0	6	0	1	2	0	3	5	6	0	0	11	23
Total	5	5	8	0	18	4	9	11	0	24	0	2	8	0	10	10	11	5	0	26	78
08:00 AM	3	2	2	0	7	4	4	2	0	10	1	1	3	0	5	1	2	0	0	3	25
08:15 AM	0	1	5	0	6	1	7	0	0	8	3	3	1	0	7	2	3	1	0	6	27
08:30 AM	2	1	7	0	10	1	2	6	0	9	0	0	3	0	3	2	1	4	0	7	29
08:45 AM	2	2	9	0	13	1	4	0	0	5	3	4	0	0	7	0	0	1	0	1	26
Total	7	6	23	0	36	7	17	8	0	32	7	8	7	0	22	5	6	6	0	17	107

*** BREAK ***

04:00 PM	0	0	7	0	7	1	5	1	0	7	0	1	1	0	2	3	2	2	0	7	23
04:15 PM	1	1	3	0	5	0	5	0	0	5	2	4	2	0	8	0	2	0	0	2	20
04:30 PM	0	0	3	0	3	1	2	1	0	4	2	1	1	0	4	1	1	0	0	2	13
04:45 PM	1	0	0	0	1	0	2	1	0	3	0	0	0	0	0	0	1	0	0	1	5
Total	2	1	13	0	16	2	14	3	0	19	4	6	4	0	14	4	6	2	0	12	61
05:00 PM	1	0	2	0	3	1	2	1	0	4	0	1	2	0	3	1	1	0	0	2	12
05:15 PM	0	0	1	0	1	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	3
05:30 PM	1	0	0	0	1	0	0	2	0	2	0	0	1	0	1	0	0	0	0	0	4
05:45 PM	0	0	1	0	1	1	0	0	0	1	0	0	1	0	1	1	0	0	0	1	4
Total	2	0	4	0	6	2	2	3	0	7	1	2	4	0	7	2	1	0	0	3	23
Grand Total	16	12	48	0	76	15	42	25	0	82	12	18	23	0	53	21	24	13	0	58	269
Apprch %	21.1	15.8	63.2	0		18.3	51.2	30.5	0		22.6	34	43.4	0		36.2	41.4	22.4	0		
Total %	5.9	4.5	17.8	0	28.3	5.6	15.6	9.3	0	30.5	4.5	6.7	8.6	0	19.7	7.8	8.9	4.8	0	21.6	

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development

Turning Movement Count

Traffic Impact Analysis

File Name : 1_98th-Central

Site Code : 1

Start Date : 4/8/2021

Page No : 6

	98TH ST From North					CENTRAL AVE From East					98TH ST From South					CENTRAL AVE From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	3	2	2	0	7	4	4	2	0	10	1	1	3	0	5	1	2	0	0	3	25
08:15 AM	0	1	5	0	6	1	7	0	0	8	3	3	1	0	7	2	3	1	0	6	27
08:30 AM	2	1	7	0	10	1	2	6	0	9	0	0	3	0	3	2	1	4	0	7	29
08:45 AM	2	2	9	0	13	1	4	0	0	5	3	4	0	0	7	0	0	1	0	1	26
Total Volume	7	6	23	0	36	7	17	8	0	32	7	8	7	0	22	5	6	6	0	17	107
% App. Total	19.4	16.7	63.9	0		21.9	53.1	25	0		31.8	36.4	31.8	0		29.4	35.3	35.3	0		
PHF	.583	.750	.639	.000	.692	.438	.607	.333	.000	.800	.583	.500	.583	.000	.786	.625	.500	.375	.000	.607	.922

Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	0	0	7		7	1	5	1		7						3	2	2		7	23
04:15 PM	1	1	3	0	5	0	5	0	0	5	2	4	2	0	8	0	2	0	0	2	20
04:30 PM	0	0	3	0	3	1	2	1	0	4	2	1	1	0	4	1	1	0	0	2	13
04:45 PM	1	0	0	0	1	0	2	1	0	3	0	0	0	0	0	0	1	0	0	1	5
Total Volume	2	1	13	0	16	2	14	3	0	19	4	6	4	0	14	4	6	2	0	12	61
% App. Total	12.5	6.2	81.2	0		10.5	73.7	15.8	0		28.6	42.9	28.6	0		33.3	50.0	16.7	0		
PHF	.500	.250	.464	.000	.571	.500	.700	.750	.000	.679	.500	.375	.500	.000	.438	.333	.750	.250	.000	.429	.663

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 2_98th-Volcano
Site Code : 2
Start Date : 4/8/2021
Page No : 1

Groups Printed- Cars - Trucks

	98TH From North					VOLCANO From East					98TH From South					VOLCANO From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	9	122	0	0	131	0	0	14	0	14	2	360	5	0	367	0	0	0	0	0	512
07:15 AM	10	132	2	0	144	0	0	9	0	9	1	419	2	0	422	0	0	0	0	0	575
07:30 AM	3	144	2	0	149	0	0	17	0	17	0	457	4	0	461	1	0	0	0	1	628
07:45 AM	3	163	1	1	168	3	0	14	0	17	0	393	10	0	403	0	0	1	0	1	589
Total	25	561	5	1	592	3	0	54	0	57	3	1629	21	0	1653	1	0	1	0	2	2304
08:00 AM	11	153	0	0	164	0	0	15	0	15	0	348	7	0	355	0	0	0	0	0	534
08:15 AM	5	132	2	0	139	1	0	17	0	18	1	333	4	0	338	1	0	0	0	1	496
08:30 AM	8	163	1	0	172	2	0	27	0	29	0	325	2	0	327	0	0	0	0	0	528
08:45 AM	15	149	1	0	165	1	0	13	0	14	0	266	1	0	267	1	1	0	0	2	448
Total	39	597	4	0	640	4	0	72	0	76	1	1272	14	0	1287	2	1	0	0	3	2006
*** BREAK ***																					
04:00 PM	18	338	1	0	357	2	0	18	0	20	0	224	7	0	231	0	0	1	0	1	609
04:15 PM	19	332	0	0	351	5	0	5	0	10	0	229	13	3	245	0	0	3	2	5	611
04:30 PM	21	353	0	0	374	4	0	18	0	22	0	248	5	2	255	0	0	0	1	1	652
04:45 PM	17	384	0	0	401	3	2	12	0	17	1	256	6	1	264	0	0	0	0	0	682
Total	75	1407	1	0	1483	14	2	53	0	69	1	957	31	6	995	0	0	4	3	7	2554
05:00 PM	23	343	0	0	366	3	0	20	0	23	0	237	10	0	247	0	0	0	0	0	636
05:15 PM	16	234	0	0	250	2	0	4	0	6	0	196	6	0	202	0	0	0	0	0	458
*** BREAK ***																					
Total	39	577	0	0	616	5	0	24	0	29	0	433	16	0	449	0	0	0	0	0	1094
*** BREAK ***																					
Grand Total	178	3142	10	1	3331	26	2	203	0	231	5	4291	82	6	4384	3	1	5	3	12	7958
Apprch %	5.3	94.3	0.3	0		11.3	0.9	87.9	0		0.1	97.9	1.9	0.1		25	8.3	41.7	25		
Total %	2.2	39.5	0.1	0	41.9	0.3	0	2.6	0	2.9	0.1	53.9	1	0.1	55.1	0	0	0.1	0	0.2	
Cars	170	3035	8	1	3214	26	2	193	0	221	4	4195	81	6	4286	2	0	5	3	10	7731
% Cars	95.5	96.6	80	100	96.5	100	100	95.1	0	95.7	80	97.8	98.8	100	97.8	66.7	0	100	100	83.3	97.1
Trucks	8	107	2	0	117	0	0	10	0	10	1	96	1	0	98	1	1	0	0	2	227
% Trucks	4.5	3.4	20	0	3.5	0	0	4.9	0	4.3	20	2.2	1.2	0	2.2	33.3	100	0	0	16.7	2.9

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 2_98th-Volcano
Site Code : 2
Start Date : 4/8/2021
Page No : 2

	98TH From North					VOLCANO From East					98TH From South					VOLCANO From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	10	132	2	0	144	0	0	9	0	9	1	419	2	0	422	0	0	0	0	0	575
07:30 AM	3	144	2	0	149	0	0	17	0	17	0	457	4	0	461	1	0	0	0	1	628
07:45 AM	3	163	1	1	168	3	0	14	0	17	0	393	10	0	403	0	0	1	0	1	589
08:00 AM	11	153	0	0	164	0	0	15	0	15	0	348	7	0	355	0	0	0	0	0	534
Total Volume	27	592	5	1	625	3	0	55	0	58	1	1617	23	0	1641	1	0	1	0	2	2326
% App. Total	4.3	94.7	0.8	0.2		5.2	0	94.8	0		0.1	98.5	1.4	0		50	0	50	0		
PHF	.614	.908	.625	.250	.930	.250	.000	.809	.000	.853	.250	.885	.575	.000	.890	.250	.000	.250	.000	.500	.926

4% 6% 20% 0 0 4% 0 2% 0 0 0 0

Peak Hour Analysis From 12:00 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:15 PM

04:15 PM	19	332	0	0	351	5	0	18	0	22	0	248	5	2	255	0	0	3	2	5	
04:30 PM	21	353	0	0	374	4	0	12	0	17	1	256	6	1	264	0	0	0	0	0	652
04:45 PM	17	384	0	0	401	3	2	12	0	17	1	256	6	1	264	0	0	0	0	0	682
05:00 PM	23	343	0	0	366	3	0	20	0	23	0	237	10	0	247	0	0	0	0	0	636
Total Volume	80	1412	0	0	1492	15	2	55	0	72	1	970	34	6	1011	0	0	3	3	6	2581
% App. Total	5.4	94.6	0	0		20.8	2.8	76.4	0		0.1	95.9	3.4	0.6		0	0	50	50		
PHF	.870	.919	.000	.000	.930	.750	.250	.688	.000	.783	.250	.947	.654	.500	.957	.000	.000	.250	.375	.300	.946

5% 1% 0

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 2_98th-Volcano
Site Code : 2
Start Date : 4/8/2021
Page No : 3

Groups Printed- Cars

	98TH From North					VOLCANO From East					98TH From South					VOLCANO From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	9	121	0	0	130	0	0	13	0	13	1	345	5	0	351	0	0	0	0	0	494
07:15 AM	9	125	2	0	136	0	0	9	0	9	1	410	2	0	413	0	0	0	0	0	558
07:30 AM	3	132	2	0	137	0	0	16	0	16	0	452	4	0	456	1	0	0	0	1	610
07:45 AM	2	155	0	1	158	3	0	14	0	17	0	383	10	0	393	0	0	1	0	1	569
Total	23	533	4	1	561	3	0	52	0	55	2	1590	21	0	1613	1	0	1	0	2	2231
08:00 AM	11	147	0	0	158	0	0	15	0	15	0	338	7	0	345	0	0	0	0	0	518
08:15 AM	5	120	2	0	127	1	0	16	0	17	1	327	4	0	332	1	0	0	0	1	477
08:30 AM	7	146	1	0	154	2	0	22	0	24	0	316	2	0	318	0	0	0	0	0	496
08:45 AM	15	134	0	0	149	1	0	12	0	13	0	261	1	0	262	0	0	0	0	0	424
Total	38	547	3	0	588	4	0	65	0	69	1	1242	14	0	1257	1	0	0	0	1	1915
*** BREAK ***																					
04:00 PM	17	331	1	0	349	2	0	17	0	19	0	214	7	0	221	0	0	1	0	1	590
04:15 PM	19	325	0	0	344	5	0	5	0	10	0	224	13	3	240	0	0	3	2	5	599
04:30 PM	18	345	0	0	363	4	0	18	0	22	0	243	5	2	250	0	0	0	1	1	636
04:45 PM	17	383	0	0	400	3	2	12	0	17	1	252	6	1	260	0	0	0	0	0	677
Total	71	1384	1	0	1456	14	2	52	0	68	1	933	31	6	971	0	0	4	3	7	2502
05:00 PM	22	339	0	0	361	3	0	20	0	23	0	235	9	0	244	0	0	0	0	0	628
05:15 PM	16	232	0	0	248	2	0	4	0	6	0	195	6	0	201	0	0	0	0	0	455
*** BREAK ***																					
Total	38	571	0	0	609	5	0	24	0	29	0	430	15	0	445	0	0	0	0	0	1083
*** BREAK ***																					
Grand Total	170	3035	8	1	3214	26	2	193	0	221	4	4195	81	6	4286	2	0	5	3	10	7731
Apprch %	5.3	94.4	0.2	0		11.8	0.9	87.3	0		0.1	97.9	1.9	0.1		20	0	50	30		
Total %	2.2	39.3	0.1	0	41.6	0.3	0	2.5	0	2.9	0.1	54.3	1	0.1	55.4	0	0	0.1	0	0.1	

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 2_98th-Volcano
Site Code : 2
Start Date : 4/8/2021
Page No : 4

	98TH From North					VOLCANO From East					98TH From South					VOLCANO From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	9	125	2	0	136	0	0	9	0	9	1	410	2	0	413	0	0	0	0	0	558
07:30 AM	3	132	2	0	137	0	0	16	0	16	0	452	4	0	456	1	0	0	0	1	610
07:45 AM	2	155	0	1	158	3	0	14	0	17	0	383	10	0	393	0	0	1	0	1	569
08:00 AM	11	147	0	0	158	0	0	15	0	15	0	338	7	0	345	0	0	0	0	0	518
Total Volume	25	559	4	1	589	3	0	54	0	57	1	1583	23	0	1607	1	0	1	0	2	2255
% App. Total	4.2	94.9	0.7	0.2		5.3	0	94.7	0		0.1	98.5	1.4	0		50	0	50	0		
PHF	.568	.902	.500	.250	.932	.250	.000	.844	.000	.838	.250	.876	.575	.000	.881	.250	.000	.250	.000	.500	.924

Peak Hour Analysis From 12:00 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:15 PM

04:15 PM	19	325	0	0	344	5						13	3				3	2	5		
04:30 PM	18	345	0	0	363	4	0	18	0	22	0	243	5	2	250	0	0	0	1	1	636
04:45 PM	17	383	0	0	400	3	2	12	0	17	1	252	6	1	260	0	0	0	0	0	677
05:00 PM	22	339	0	0	361	3	0	20	0	23	0	235	9	0	244	0	0	0	0	0	628
Total Volume	76	1392	0	0	1468	15	2	55	0	72	1	954	33	6	994	0	0	3	3	6	2540
% App. Total	5.2	94.8	0	0		20.8	2.8	76.4	0		0.1	96	3.3	0.6		0	0	50	50		
PHF	.864	.909	.000	.000	.918	.750	.250	.688	.000	.783	.250	.946	.635	.500	.956	.000	.000	.250	.375	.300	.938

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 2_98th-Volcano
Site Code : 2
Start Date : 4/8/2021
Page No : 5

Groups Printed- Trucks

	98TH From North					VOLCANO From East					98TH From South					VOLCANO From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	1	0	0	1	0	0	1	0	1	1	15	0	0	16	0	0	0	0	0	18
07:15 AM	1	7	0	0	8	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	17
07:30 AM	0	12	0	0	12	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	18
07:45 AM	1	8	1	0	10	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	20
Total	2	28	1	0	31	0	0	2	0	2	1	39	0	0	40	0	0	0	0	0	73
08:00 AM	0	6	0	0	6	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	16
08:15 AM	0	12	0	0	12	0	0	1	0	1	0	6	0	0	6	0	0	0	0	0	19
08:30 AM	1	17	0	0	18	0	0	5	0	5	0	9	0	0	9	0	0	0	0	0	32
08:45 AM	0	15	1	0	16	0	0	1	0	1	0	5	0	0	5	1	1	0	0	2	24
Total	1	50	1	0	52	0	0	7	0	7	0	30	0	0	30	1	1	0	0	2	91
*** BREAK ***																					
04:00 PM	1	7	0	0	8	0	0	1	0	1	0	10	0	0	10	0	0	0	0	0	19
04:15 PM	0	7	0	0	7	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	12
04:30 PM	3	8	0	0	11	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	16
04:45 PM	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	5
Total	4	23	0	0	27	0	0	1	0	1	0	24	0	0	24	0	0	0	0	0	52
05:00 PM	1	4	0	0	5	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	8
05:15 PM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
*** BREAK ***																					
Total	1	6	0	0	7	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	11
*** BREAK ***																					
Grand Total	8	107	2	0	117	0	0	10	0	10	1	96	1	0	98	1	1	0	0	2	227
Apprch %	6.8	91.5	1.7	0		0	0	100	0		1	98	1	0		50	50	0	0		
Total %	3.5	47.1	0.9	0	51.5	0	0	4.4	0	4.4	0.4	42.3	0.4	0	43.2	0.4	0.4	0	0	0.9	

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 2_98th-Volcano
Site Code : 2
Start Date : 4/8/2021
Page No : 6

	98TH From North					VOLCANO From East					98TH From South					VOLCANO From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	6	0	0	6	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	16
08:15 AM	0	12	0	0	12	0	0	1	0	1	0	6	0	0	6	0	0	0	0	0	19
08:30 AM	1	17	0	0	18	0	0	5	0	5	0	9	0	0	9	0	0	0	0	0	32
08:45 AM	0	15	1	0	16	0	0	1	0	1	0	5	0	0	5	1	1	0	0	2	24
Total Volume	1	50	1	0	52	0	0	7	0	7	0	30	0	0	30	1	1	0	0	2	91
% App. Total	1.9	96.2	1.9	0		0	0	100	0		0	100	0	0		50	50	0	0		
PHF	.250	.735	.250	.000	.722	.000	.000	.350	.000	.350	.000	.750	.000	.000	.750	.250	.250	.000	.000	.250	.711

Peak Hour Analysis From 12:00 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	1	7	0	0	8	0	0	1	0	1	0	10	0	0	10	0	0	0	0	0	19
04:15 PM	0	7	0	0	7	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	12
04:30 PM	3	8	0	0	11	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	16
04:45 PM	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	5
Total Volume	4	23	0	0	27	0	0	1	0	1	0	24	0	0	24	0	0	0	0	0	52
% App. Total	14.8	85.2	0	0		0	0	100	0		0	100	0	0		0	0	0	0		
PHF	.333	.719	.000	.000	.614	.000	.000	.250	.000	.250	.000	.600	.000	.000	.600	.000	.000	.000	.000	.000	.684

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 3_98th-Bluewater
Site Code : 3
Start Date : 4/7/2021
Page No : 1

Groups Printed- Cars - Trucks

	98TH From North					BLUEWATER AVALON From East					98TH From South					BLUEWATER AVALON From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	4	127	20	0	151	2	2	21	0	25	3	349	18	0	370	31	1	5	0	37	583
07:15 AM	3	125	22	0	150	8	0	13	0	21	3	378	12	0	393	28	1	3	0	32	596
07:30 AM	6	140	18	0	164	6	1	19	0	26	1	294	11	0	306	26	1	8	0	35	531
07:45 AM	5	146	22	0	173	4	2	18	1	25	3	262	8	0	273	29	1	6	0	36	507
Total	18	538	82	0	638	20	5	71	1	97	10	1283	49	0	1342	114	4	22	0	140	2217
08:00 AM	8	120	25	0	153	8	3	7	0	18	4	246	8	0	258	32	3	7	0	42	471
08:15 AM	4	103	29	0	136	9	3	20	0	32	3	282	19	0	304	28	0	6	0	34	506
08:30 AM	14	136	26	1	177	10	2	16	0	28	6	347	6	0	359	34	4	8	0	46	610
08:45 AM	8	161	28	0	197	8	0	21	0	29	5	285	10	0	300	26	2	3	0	31	557
Total	34	520	108	1	663	35	8	64	0	107	18	1160	43	0	1221	120	9	24	0	153	2144
*** BREAK ***																					
04:00 PM	11	315	59	0	385	14	3	11	0	28	10	215	15	1	241	27	3	15	1	46	700
04:15 PM	12	315	74	0	401	13	0	14	0	27	5	242	11	1	259	44	8	19	0	71	758
04:30 PM	12	317	50	0	379	16	4	16	0	36	8	258	14	0	280	39	4	14	0	57	752
04:45 PM	6	321	53	0	380	12	5	15	2	34	7	263	19	0	289	30	5	14	0	49	752
Total	41	1268	236	0	1545	55	12	56	2	125	30	978	59	2	1069	140	20	62	1	223	2962
05:00 PM	9	338	54	0	401	14	0	12	0	26	6	218	17	0	241	28	5	11	0	44	712
05:15 PM	16	332	47	0	395	19	1	16	1	37	9	228	26	1	264	37	6	20	0	63	759
05:30 PM	10	336	39	0	385	11	0	11	0	22	5	224	18	0	247	25	3	17	0	45	699
05:45 PM	7	316	31	0	354	16	7	10	0	33	10	228	25	0	263	20	2	14	0	36	686
Total	42	1322	171	0	1535	60	8	49	1	118	30	898	86	1	1015	110	16	62	0	188	2856
*** BREAK ***																					
Grand Total	135	3648	597	1	4381	170	33	240	4	447	88	4319	237	3	4647	484	49	170	1	704	10179
Apprch %	3.1	83.3	13.6	0		38	7.4	53.7	0.9		1.9	92.9	5.1	0.1		68.8	7	24.1	0.1		
Total %	1.3	35.8	5.9	0	43	1.7	0.3	2.4	0	4.4	0.9	42.4	2.3	0	45.7	4.8	0.5	1.7	0	6.9	
Cars	122	3554	369	1	4046	163	27	218	4	412	76	4240	230	3	4549	264	39	161	1	465	9472
% Cars	90.4	97.4	61.8	100	92.4	95.9	81.8	90.8	100	92.2	86.4	98.2	97	100	97.9	54.5	79.6	94.7	100	66.1	93.1
Trucks	13	94	228	0	335	7	6	22	0	35	12	79	7	0	98	220	10	9	0	239	707
% Trucks	9.6	2.6	38.2	0	7.6	4.1	18.2	9.2	0	7.8	13.6	1.8	3	0	2.1	45.5	20.4	5.3	0	33.9	6.9

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 3_98th-Bluewater
Site Code : 3
Start Date : 4/7/2021
Page No : 2

	98TH From North					BLUEWATER AVALON From East					98TH From South					BLUEWATER AVALON From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	4	127	20	0	151	2	2	21	0	25	3	349	18	0	370	31	1	5	0	37	583
07:15 AM	3	125	22	0	150	8	0	13	0	21	3	378	12	0	393	28	1	3	0	32	596
07:30 AM	6	140	18	0	164	6	1	19	0	26	1	294	11	0	306	26	1	8	0	35	531
07:45 AM	5	146	22	0	173	4	2	18	1	25	3	262	8	0	273	29	1	6	0	36	507
Total Volume	18	538	82	0	638	20	5	71	1	97	10	1283	49	0	1342	114	4	22	0	140	2217
% App. Total	2.8	84.3	12.9	0		20.6	5.2	73.2	1		0.7	95.6	3.7	0		81.4	2.9	15.7	0		
PHF	.750	.921	.932	.000	.922	.625	.625	.845	.250	.933	.833	.849	.681	.000	.854	.919	1.00	.688	.000	.946	.930

Peak Hour Analysis From 12:00 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:30 PM

04:30 PM	12	317	50	0	379	16	4	16			7	263	19	0	289	39					
04:45 PM	6	321	53	0	380	12	5	15	2	34	6	218	17	0	241	30	5	14	0	49	752
05:00 PM	9	338	54	0	401	14	0	12	0	26	6	218	17	0	241	28	5	11	0	44	712
05:15 PM	16	332	47	0	395	19	1	16	1	37	9	228	26	1	264	37	6	20	0	63	759
Total Volume	43	1308	204	0	1555	61	10	59	3	133	30	967	76	1	1074	134	20	59	0	213	2975
% App. Total	2.8	84.1	13.1	0		45.9	7.5	44.4	2.3		2.8	90	7.1	0.1		62.9	9.4	27.7	0		
PHF	.672	.967	.944	.000	.969	.803	.500	.922	.375	.899	.833	.919	.731	.250	.929	.859	.833	.738	.000	.845	.980

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 3_98th-Bluewater
Site Code : 3
Start Date : 4/7/2021
Page No : 3

Groups Printed- Cars

	98TH From North					BLUEWATER AVALON From East					98TH From South					BLUEWATER AVALON From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	4	125	12	0	141	2	2	17	0	21	3	338	17	0	358	15	1	5	0	21	541
07:15 AM	3	120	9	0	132	8	0	11	0	19	3	373	12	0	388	16	1	3	0	20	559
07:30 AM	6	135	9	0	150	6	1	19	0	26	1	289	11	0	301	10	1	6	0	17	494
07:45 AM	3	140	8	0	151	3	1	17	1	22	3	260	7	0	270	15	1	4	0	20	463
Total	16	520	38	0	574	19	4	64	1	88	10	1260	47	0	1317	56	4	18	0	78	2057
08:00 AM	6	109	12	0	127	7	3	7	0	17	4	242	7	0	253	13	2	6	0	21	418
08:15 AM	1	92	15	0	108	8	3	16	0	27	1	274	18	0	293	8	0	6	0	14	442
08:30 AM	14	125	16	1	156	9	1	15	0	25	5	337	6	0	348	15	3	7	0	25	554
08:45 AM	7	149	4	0	160	8	0	16	0	24	4	278	10	0	292	7	2	3	0	12	488
Total	28	475	47	1	551	32	7	54	0	93	14	1131	41	0	1186	43	7	22	0	72	1902
*** BREAK ***																					
04:00 PM	10	306	44	0	360	14	2	10	0	26	9	209	14	1	233	18	3	15	1	37	656
04:15 PM	11	309	58	0	378	13	0	13	0	26	5	231	11	1	248	27	6	17	0	50	702
04:30 PM	11	313	36	0	360	16	4	15	0	35	5	253	14	0	272	28	3	14	0	45	712
04:45 PM	6	318	35	0	359	9	3	14	2	28	6	262	18	0	286	20	5	14	0	39	712
Total	38	1246	173	0	1457	52	9	52	2	115	25	955	57	2	1039	93	17	60	1	171	2782
05:00 PM	8	334	39	0	381	14	0	12	0	26	6	217	16	0	239	18	4	11	0	33	679
05:15 PM	16	329	35	0	380	19	1	16	1	37	7	227	26	1	261	23	4	20	0	47	725
05:30 PM	9	335	18	0	362	11	0	10	0	21	4	223	18	0	245	16	2	17	0	35	663
05:45 PM	7	315	19	0	341	16	6	10	0	32	10	227	25	0	262	15	1	13	0	29	664
Total	40	1313	111	0	1464	60	7	48	1	116	27	894	85	1	1007	72	11	61	0	144	2731
*** BREAK ***																					
Grand Total	122	3554	369	1	4046	163	27	218	4	412	76	4240	230	3	4549	264	39	161	1	465	9472
Apprch %	3	87.8	9.1	0		39.6	6.6	52.9	1		1.7	93.2	5.1	0.1		56.8	8.4	34.6	0.2		
Total %	1.3	37.5	3.9	0	42.7	1.7	0.3	2.3	0	4.3	0.8	44.8	2.4	0	48	2.8	0.4	1.7	0	4.9	

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 3_98th-Bluewater
Site Code : 3
Start Date : 4/7/2021
Page No : 4

	98TH From North					BLUEWATER AVALON From East					98TH From South					BLUEWATER AVALON From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	4	125	12	0	141	2	2	17	0	21	3	338	17	0	358	15	1	5	0	21	541
07:15 AM	3	120	9	0	132	8	0	11	0	19	3	373	12	0	388	16	1	3	0	20	559
07:30 AM	6	135	9	0	150	6	1	19	0	26	1	289	11	0	301	10	1	6	0	17	494
07:45 AM	3	140	8	0	151	3	1	17	1	22	3	260	7	0	270	15	1	4	0	20	463
Total Volume	16	520	38	0	574	19	4	64	1	88	10	1260	47	0	1317	56	4	18	0	78	2057
% App. Total	2.8	90.6	6.6	0		21.6	4.5	72.7	1.1		0.8	95.7	3.6	0		71.8	5.1	23.1	0		
PHF	.667	.929	.792	.000	.950	.594	.500	.842	.250	.846	.833	.845	.691	.000	.849	.875	1.00	.750	.000	.929	.920

Peak Hour Analysis From 12:00 PM to 06:00 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:30 PM

04:30 PM	11	313	36	0	360	16	4				6	262	18	0	286	28					
04:45 PM	6	318	35	0	359	9	3	14	2	28	6	217	16	0	239	20	5	14	0	39	712
05:00 PM	8	334	39	0	381	14	0	12	0	26	6	217	16	0	239	18	4	11	0	33	679
05:15 PM	16	329	35	0	380	19	1	16	1	37	7	227	26	1	261	23	4	20	0	47	725
Total Volume	41	1294	145	0	1480	58	8	57	3	126	24	959	74	1	1058	89	16	59	0	164	2828
% App. Total	2.8	87.4	9.8	0		46	6.3	45.2	2.4		2.3	90.6	7	0.1		54.3	9.8	36	0		
PHF	.641	.969	.929	.000	.971	.763	.500	.891	.375	.851	.857	.915	.712	.250	.925	.795	.800	.738	.000	.872	.975

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 3_98th-Bluewater
Site Code : 3
Start Date : 4/7/2021
Page No : 5

Groups Printed- Trucks

Start Time	98TH From North					BLUEWATER AVALON From East					98TH From South					BLUEWATER AVALON From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	0	2	8	0	10	0	0	4	0	4	0	11	1	0	12	16	0	0	0	16	42
07:15 AM	0	5	13	0	18	0	0	2	0	2	0	5	0	0	5	12	0	0	0	12	37
07:30 AM	0	5	9	0	14	0	0	0	0	0	0	5	0	0	5	16	0	2	0	18	37
07:45 AM	2	6	14	0	22	1	1	1	0	3	0	2	1	0	3	14	0	2	0	16	44
Total	2	18	44	0	64	1	1	7	0	9	0	23	2	0	25	58	0	4	0	62	160
08:00 AM	2	11	13	0	26	1	0	0	0	1	0	4	1	0	5	19	1	1	0	21	53
08:15 AM	3	11	14	0	28	1	0	4	0	5	2	8	1	0	11	20	0	0	0	20	64
08:30 AM	0	11	10	0	21	1	1	1	0	3	1	10	0	0	11	19	1	1	0	21	56
08:45 AM	1	12	24	0	37	0	0	5	0	5	1	7	0	0	8	19	0	0	0	19	69
Total	6	45	61	0	112	3	1	10	0	14	4	29	2	0	35	77	2	2	0	81	242

*** BREAK ***

04:00 PM	1	9	15	0	25	0	1	1	0	2	1	6	1	0	8	9	0	0	0	9	44
04:15 PM	1	6	16	0	23	0	0	1	0	1	0	11	0	0	11	17	2	2	0	21	56
04:30 PM	1	4	14	0	19	0	0	1	0	1	3	5	0	0	8	11	1	0	0	12	40
04:45 PM	0	3	18	0	21	3	2	1	0	6	1	1	1	0	3	10	0	0	0	10	40
Total	3	22	63	0	88	3	3	4	0	10	5	23	2	0	30	47	3	2	0	52	180
05:00 PM	1	4	15	0	20	0	0	0	0	0	0	1	1	0	2	10	1	0	0	11	33
05:15 PM	0	3	12	0	15	0	0	0	0	0	2	1	0	0	3	14	2	0	0	16	34
05:30 PM	1	1	21	0	23	0	0	1	0	1	1	1	0	0	2	9	1	0	0	10	36
05:45 PM	0	1	12	0	13	0	1	0	0	1	0	1	0	0	1	5	1	1	0	7	22
Total	2	9	60	0	71	0	1	1	0	2	3	4	1	0	8	38	5	1	0	44	125

*** BREAK ***

Grand Total	13	94	228	0	335	7	6	22	0	35	12	79	7	0	98	220	10	9	0	239	707
Apprch %	3.9	28.1	68.1	0		20	17.1	62.9	0		12.2	80.6	7.1	0		92.1	4.2	3.8	0		
Total %	1.8	13.3	32.2	0	47.4	1	0.8	3.1	0	5	1.7	11.2	1	0	13.9	31.1	1.4	1.3	0	33.8	

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 3_98th-Bluewater
Site Code : 3
Start Date : 4/7/2021
Page No : 6

	98TH From North					BLUEWATER AVALON From East					98TH From South					BLUEWATER AVALON From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	2	11	13	0	26	1	0	0	0	1	0	4	1	0	5	19	1	1	0	21	53
08:15 AM	3	11	14	0	28	1	0	4	0	5	2	8	1	0	11	20	0	0	0	20	64
08:30 AM	0	11	10	0	21	1	1	1	0	3	1	10	0	0	11	19	1	1	0	21	56
08:45 AM	1	12	24	0	37	0	0	5	0	5	1	7	0	0	8	19	0	0	0	19	69
Total Volume	6	45	61	0	112	3	1	10	0	14	4	29	2	0	35	77	2	2	0	81	242
% App. Total	5.4	40.2	54.5	0		21.4	7.1	71.4	0		11.4	82.9	5.7	0		95.1	2.5	2.5	0		
PHF	.500	.938	.635	.000	.757	.750	.250	.500	.000	.700	.500	.725	.500	.000	.795	.963	.500	.500	.000	.964	.877

Peak Hour Analysis From 12:00 PM to 06:00 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	1	9			25			1					1								
04:15 PM	1	6	16	0	23	0	0	1	0	1	0	11	0	0	11	17	2	2	0	21	56
04:30 PM	1	4	14	0	19	0	0	1	0	1	3	5	0	0	8	11	1	0	0	12	40
04:45 PM	0	3	18	0	21	3	2	1	0	6	1	1	1	0	3	10	0	0	0	10	40
Total Volume	3	22	63	0	88	3	3	4	0	10	5	23	2	0	30	47	3	2	0	52	180
% App. Total	3.4	25	71.6	0		30	30	40	0		16.7	76.7	6.7	0		90.4	5.8	3.8	0		
PHF	.750	.611	.875	.000	.880	.250	.375	1.00	.000	.417	.417	.523	.500	.000	.682	.691	.375	.250	.000	.619	.804

Civil Transformations Inc.

2929 Coors Blvd. NW, Suite 309

Albuquerque, NM 87120

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 4_98th I40SOUTH
Site Code : 4
Start Date : 4/7/2021
Page No : 1

Groups Printed- Cars - Trucks

Start Time	98TH From North					I40 SOUTH RAMP From East					98TH From South					I40 SOUTH RAMP From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	0	149	48	0	197	0	0	0	0	0	0	51	328	0	379	0	0	13	0	13	589
07:15 AM	0	142	56	0	198	0	0	0	0	0	0	69	300	0	369	1	0	10	0	11	578
07:30 AM	0	162	74	0	236	0	0	0	0	0	0	53	295	0	348	5	0	15	0	20	604
07:45 AM	0	152	59	0	211	0	0	0	0	0	0	58	242	0	300	4	0	15	0	19	530
Total	0	605	237	0	842	0	0	0	0	0	0	231	1165	0	1396	10	0	53	0	63	2301
08:00 AM	0	139	37	0	176	0	0	0	0	0	0	75	201	0	276	2	0	21	0	23	475
08:15 AM	0	119	37	0	156	0	0	0	0	0	0	112	252	0	364	7	0	20	0	27	547
08:30 AM	0	151	55	0	206	0	0	0	0	0	0	82	286	0	368	15	0	11	0	26	600
08:45 AM	0	169	46	0	215	0	0	0	0	0	0	56	237	0	293	2	0	15	0	17	525
Total	0	578	175	0	753	0	0	0	0	0	0	325	976	0	1301	26	0	67	0	93	2147
*** BREAK ***																					
04:00 PM	0	368	56	0	424	0	0	0	0	0	0	58	187	0	245	1	0	19	0	20	689
04:15 PM	0	391	44	0	435	0	0	0	0	0	0	61	218	0	279	1	0	14	0	15	729
04:30 PM	0	354	28	0	382	0	0	0	0	0	0	95	214	0	309	2	0	21	0	23	714
04:45 PM	0	326	30	0	356	0	0	0	0	0	0	86	190	0	276	3	0	24	0	27	659
Total	0	1439	158	0	1597	0	0	0	0	0	0	300	809	0	1109	7	0	78	0	85	2791
05:00 PM	0	366	22	0	388	0	0	0	0	0	0	80	179	0	259	3	0	19	0	22	669
05:15 PM	0	394	23	0	417	0	0	0	0	0	0	93	202	0	295	6	0	13	0	19	731
05:30 PM	0	358	25	1	384	0	0	0	0	0	0	89	170	0	259	3	0	16	0	19	662
05:45 PM	0	347	16	0	363	0	0	0	0	0	0	70	174	0	244	6	0	15	0	21	628
Total	0	1465	86	1	1552	0	0	0	0	0	0	332	725	0	1057	18	0	63	0	81	2690
Grand Total	0	4087	656	1	4744	0	0	0	0	0	0	1188	3675	0	4863	61	0	261	0	322	9929
Apprch %	0	86.2	13.8	0		0	0	0	0		0	24.4	75.6	0		18.9	0	81.1	0		
Total %	0	41.2	6.6	0	47.8	0	0	0	0	0	0	12	37	0	49	0.6	0	2.6	0	3.2	
Cars	0	3845	649	1	4495	0	0	0	0	0	0	1068	3493	0	4561	57	0	151	0	208	9264
% Cars	0	94.1	98.9	100	94.8	0	0	0	0	0	0	89.9	95	0	93.8	93.4	0	57.9	0	64.6	93.3
Trucks	0	242	7	0	249	0	0	0	0	0	0	120	182	0	302	4	0	110	0	114	665
% Trucks	0	5.9	1.1	0	5.2	0	0	0	0	0	0	10.1	5	0	6.2	6.6	0	42.1	0	35.4	6.7

Civil Transformations Inc.

2929 Coors Blvd. NW, Suite 309

Albuquerque, NM 87120

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 4_98th I40SOUTH
Site Code : 4
Start Date : 4/7/2021
Page No : 2

	98TH From North					I40 SOUTH RAMPS From East					98TH From South					I40 SOUTH RAMPS From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	149	48	0	197	0	0	0	0	0	0	51	328	0	379	0	0	13	0	13	589
07:15 AM	0	142	56	0	198	0	0	0	0	0	0	69	300	0	369	1	0	10	0	11	578
07:30 AM	0	162	74	0	236	0	0	0	0	0	0	53	295	0	348	5	0	15	0	20	604
07:45 AM	0	152	59	0	211	0	0	0	0	0	0	58	242	0	300	4	0	15	0	19	530
Total Volume	0	605	237	0	842	0	0	0	0	0	0	231	1165	0	1396	10	0	53	0	63	2301
% App. Total	0	71.9	28.1	0		0	0	0	0		0	16.5	83.5	0		15.9	0	84.1	0		
PHF	.000	.934	.801	.000	.892	.000	.000	.000	.000	.000	.000	.837	.888	.000	.921	.500	.000	.883	.000	.788	.952

Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	0	368	56	0	424	0	0	0	0	0	0	58	187	0	245	1	0	19	0	20	689
04:15 PM	0	391	44	0	435	0	0	0	0	0	0	61	218	0	279	1	0	14	0	15	729
04:30 PM	0	354	28	0	382	0	0	0	0	0	0	95	214	0	309	2	0	21	0	23	714
04:45 PM	0	326	30	0	356	0	0	0	0	0	0	86	190	0	276	3	0	24	0	27	659
Total Volume	0	1439	158	0	1597	0	0	0	0	0	0	300	809	0	1109	7	0	78	0	85	2791
% App. Total	0	90.1	9.9	0		0	0	0	0		0	27.1	72.9	0		8.2	0	91.8	0		
PHF	.000	.920	.705	.000	.918	.000	.000	.000	.000	.000	.000	.789	.928	.000	.897	.583	.000	.813	.000	.787	.957

Civil Transformations Inc.

2929 Coors Blvd. NW, Suite 309

Albuquerque, NM 87120

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 4_98th I40SOUTH
Site Code : 4
Start Date : 4/7/2021
Page No : 3

Groups Printed- Cars

Start Time	98TH From North					I40 SOUTH RAMPS From East					98TH From South					I40 SOUTH RAMPS From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	0	142	48	0	190	0	0	0	0	0	0	45	301	0	346	0	0	6	0	6	542
07:15 AM	0	130	56	0	186	0	0	0	0	0	0	64	289	0	353	1	0	6	0	7	546
07:30 AM	0	146	73	0	219	0	0	0	0	0	0	46	277	0	323	5	0	12	0	17	559
07:45 AM	0	141	59	0	200	0	0	0	0	0	0	55	229	0	284	4	0	5	0	9	493
Total	0	559	236	0	795	0	0	0	0	0	0	210	1096	0	1306	10	0	29	0	39	2140
08:00 AM	0	120	37	0	157	0	0	0	0	0	0	63	188	0	251	2	0	11	0	13	421
08:15 AM	0	102	36	0	138	0	0	0	0	0	0	96	244	0	340	7	0	13	0	20	498
08:30 AM	0	131	53	0	184	0	0	0	0	0	0	67	278	0	345	12	0	8	0	20	549
08:45 AM	0	142	46	0	188	0	0	0	0	0	0	44	224	0	268	1	0	4	0	5	461
Total	0	495	172	0	667	0	0	0	0	0	0	270	934	0	1204	22	0	36	0	58	1929
*** BREAK ***																					
04:00 PM	0	349	54	0	403	0	0	0	0	0	0	54	177	0	231	1	0	12	0	13	647
04:15 PM	0	369	44	0	413	0	0	0	0	0	0	55	195	0	250	1	0	9	0	10	673
04:30 PM	0	342	28	0	370	0	0	0	0	0	0	87	205	0	292	2	0	16	0	18	680
04:45 PM	0	312	30	0	342	0	0	0	0	0	0	79	185	0	264	3	0	14	0	17	623
Total	0	1372	156	0	1528	0	0	0	0	0	0	275	762	0	1037	7	0	51	0	58	2623
05:00 PM	0	355	22	0	377	0	0	0	0	0	0	73	175	0	248	3	0	10	0	13	638
05:15 PM	0	381	23	0	404	0	0	0	0	0	0	87	193	0	280	6	0	11	0	17	701
05:30 PM	0	342	24	1	367	0	0	0	0	0	0	85	165	0	250	3	0	7	0	10	627
05:45 PM	0	341	16	0	357	0	0	0	0	0	0	68	168	0	236	6	0	7	0	13	606
Total	0	1419	85	1	1505	0	0	0	0	0	0	313	701	0	1014	18	0	35	0	53	2572
Grand Total	0	3845	649	1	4495	0	0	0	0	0	0	1068	3493	0	4561	57	0	151	0	208	9264
Apprch %	0	85.5	14.4	0		0	0	0	0	0	0	23.4	76.6	0		27.4	0	72.6	0		
Total %	0	41.5	7	0	48.5	0	0	0	0	0	0	11.5	37.7	0	49.2	0.6	0	1.6	0	2.2	

Civil Transformations Inc.

2929 Coors Blvd. NW, Suite 309

Albuquerque, NM 87120

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 4_98th I40SOUTH
Site Code : 4
Start Date : 4/7/2021
Page No : 4

	98TH From North					I40 SOUTH RAMPS From East					98TH From South					I40 SOUTH RAMPS From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	142	48	0	190	0	0	0	0	0	0	45	301	0	346	0	0	6	0	6	542
07:15 AM	0	130	56	0	186	0	0	0	0	0	0	64	289	0	353	1	0	6	0	7	546
07:30 AM	0	146	73	0	219	0	0	0	0	0	0	46	277	0	323	5	0	12	0	17	559
07:45 AM	0	141	59	0	200	0	0	0	0	0	0	55	229	0	284	4	0	5	0	9	493
Total Volume	0	559	236	0	795	0	0	0	0	0	0	210	1096	0	1306	10	0	29	0	39	2140
% App. Total	0	70.3	29.7	0		0	0	0	0		0	16.1	83.9	0		25.6	0	74.4	0		
PHF	.000	.957	.808	.000	.908	.000	.000	.000	.000	.000	.000	.820	.910	.000	.925	.500	.000	.604	.000	.574	.957

Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:30 PM

04:30 PM	0	342	28	0	370	0	0	0	0	0	0	87	205	0	292	2	0	16	0	18	680
04:45 PM	0	312	30	0	342	0	0	0	0	0	0	79	185	0	264	3	0	14	0	17	623
05:00 PM	0	355	22	0	377	0	0	0	0	0	0	73	175	0	248	3	0	10	0	13	638
05:15 PM	0	381	23	0	404	0	0	0	0	0	0	87	193	0	280	6	0	11	0	17	701
Total Volume	0	1390	103	0	1493	0	0	0	0	0	0	326	758	0	1084	14	0	51	0	65	2642
% App. Total	0	93.1	6.9	0		0	0	0	0		0	30.1	69.9	0		21.5	0	78.5	0		
PHF	.000	.912	.858	.000	.924	.000	.000	.000	.000	.000	.000	.937	.924	.000	.928	.583	.000	.797	.000	.903	.942

Civil Transformations Inc.

2929 Coors Blvd. NW, Suite 309

Albuquerque, NM 87120

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 4_98th I40SOUTH
Site Code : 4
Start Date : 4/7/2021
Page No : 5

Groups Printed- Trucks

Start Time	98TH From North					I40 SOUTH RAMPS From East					98TH From South					I40 SOUTH RAMPS From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	0	7	0	0	7	0	0	0	0	0	0	6	27	0	33	0	0	7	0	7	47
07:15 AM	0	12	0	0	12	0	0	0	0	0	0	5	11	0	16	0	0	4	0	4	32
07:30 AM	0	16	1	0	17	0	0	0	0	0	0	7	18	0	25	0	0	3	0	3	45
07:45 AM	0	11	0	0	11	0	0	0	0	0	0	3	13	0	16	0	0	10	0	10	37
Total	0	46	1	0	47	0	0	0	0	0	0	21	69	0	90	0	0	24	0	24	161
08:00 AM	0	19	0	0	19	0	0	0	0	0	0	12	13	0	25	0	0	10	0	10	54
08:15 AM	0	17	1	0	18	0	0	0	0	0	0	16	8	0	24	0	0	7	0	7	49
08:30 AM	0	20	2	0	22	0	0	0	0	0	0	15	8	0	23	3	0	3	0	6	51
08:45 AM	0	27	0	0	27	0	0	0	0	0	0	12	13	0	25	1	0	11	0	12	64
Total	0	83	3	0	86	0	0	0	0	0	0	55	42	0	97	4	0	31	0	35	218
*** BREAK ***																					
04:00 PM	0	19	2	0	21	0	0	0	0	0	0	4	10	0	14	0	0	7	0	7	42
04:15 PM	0	22	0	0	22	0	0	0	0	0	0	6	23	0	29	0	0	5	0	5	56
04:30 PM	0	12	0	0	12	0	0	0	0	0	0	8	9	0	17	0	0	5	0	5	34
04:45 PM	0	14	0	0	14	0	0	0	0	0	0	7	5	0	12	0	0	10	0	10	36
Total	0	67	2	0	69	0	0	0	0	0	0	25	47	0	72	0	0	27	0	27	168
05:00 PM	0	11	0	0	11	0	0	0	0	0	0	7	4	0	11	0	0	9	0	9	31
05:15 PM	0	13	0	0	13	0	0	0	0	0	0	6	9	0	15	0	0	2	0	2	30
05:30 PM	0	16	1	0	17	0	0	0	0	0	0	4	5	0	9	0	0	9	0	9	35
05:45 PM	0	6	0	0	6	0	0	0	0	0	0	2	6	0	8	0	0	8	0	8	22
Total	0	46	1	0	47	0	0	0	0	0	0	19	24	0	43	0	0	28	0	28	118
Grand Total	0	242	7	0	249	0	0	0	0	0	0	120	182	0	302	4	0	110	0	114	665
Apprch %	0	97.2	2.8	0		0	0	0	0		0	39.7	60.3	0		3.5	0	96.5	0		
Total %	0	36.4	1.1	0	37.4	0	0	0	0	0	0	18	27.4	0	45.4	0.6	0	16.5	0	17.1	

Civil Transformations Inc.

2929 Coors Blvd. NW, Suite 309

Albuquerque, NM 87120

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 4_98th I40SOUTH
Site Code : 4
Start Date : 4/7/2021
Page No : 6

	98TH From North					I40 SOUTH RAMPS From East					98TH From South					I40 SOUTH RAMPS From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	19	0	0	19	0	0	0	0	0	0	12	13	0	25	0	0	10	0	10	54
08:15 AM	0	17	1	0	18	0	0	0	0	0	0	16	8	0	24	0	0	7	0	7	49
08:30 AM	0	20	2	0	22	0	0	0	0	0	0	15	8	0	23	3	0	3	0	6	51
08:45 AM	0	27	0	0	27	0	0	0	0	0	0	12	13	0	25	1	0	11	0	12	64
Total Volume	0	83	3	0	86	0	0	0	0	0	0	55	42	0	97	4	0	31	0	35	218
% App. Total	0	96.5	3.5	0		0	0	0	0		0	56.7	43.3	0		11.4	0	88.6	0		
PHF	.000	.769	.375	.000	.796	.000	.000	.000	.000	.000	.000	.859	.808	.000	.970	.333	.000	.705	.000	.729	.852

Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	0	19	2	0	21	0	0	0	0	0	0	4	10	0	14	0	0	7	0	7	42
04:15 PM	0	22	0	0	22	0	0	0	0	0	0	6	23	0	29	0	0	5	0	5	56
04:30 PM	0	12	0	0	12	0	0	0	0	0	0	8	9	0	17	0	0	5	0	5	34
04:45 PM	0	14	0	0	14	0	0	0	0	0	0	7	5	0	12	0	0	10	0	10	36
Total Volume	0	67	2	0	69	0	0	0	0	0	0	25	47	0	72	0	0	27	0	27	168
% App. Total	0	97.1	2.9	0		0	0	0	0		0	34.7	65.3	0		0	0	100	0		
PHF	.000	.761	.250	.000	.784	.000	.000	.000	.000	.000	.000	.781	.511	.000	.621	.000	.000	.675	.000	.675	.750

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 5_98th I40NORTH
Site Code : 5
Start Date : 4/7/2021
Page No : 1

Groups Printed- Cars - Trucks																					
	98TH From North					I40 NORTH RAMPS From East					98TH From South					I40 NORTH RAMPS From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	74	4	0	78	102	1	21	0	124	13	37	0	0	50	0	0	0	0	0	252
07:15 AM	0	85	4	0	89	115	0	24	0	139	11	55	0	0	66	0	0	0	0	0	294
07:30 AM	0	97	6	0	103	127	0	32	0	159	12	46	0	0	58	0	0	0	0	0	320
07:45 AM	0	85	5	0	90	128	0	30	0	158	10	51	0	0	61	0	0	0	0	0	309
Total	0	341	19	0	360	472	1	107	0	580	46	189	0	0	235	0	0	0	0	0	1175
08:00 AM	0	54	3	0	57	124	3	34	0	161	17	57	0	0	74	0	0	0	0	0	292
08:15 AM	0	68	9	0	77	107	1	45	0	153	21	78	0	0	99	0	0	0	0	0	329
08:30 AM	0	102	6	0	108	113	0	30	0	143	19	84	0	0	103	0	0	0	0	0	354
08:45 AM	0	112	8	0	120	122	1	25	0	148	15	47	0	0	62	0	0	0	0	0	330
Total	0	336	26	0	362	466	5	134	0	605	72	266	0	0	338	0	0	0	0	0	1305
*** BREAK ***																					
04:00 PM	0	84	7	0	91	319	0	46	0	365	19	44	0	0	63	0	0	0	0	0	519
04:15 PM	0	94	4	0	98	350	3	55	0	408	15	53	0	0	68	0	0	0	0	0	574
04:30 PM	0	68	3	0	71	310	2	55	0	367	30	63	0	0	93	0	0	0	0	0	531
04:45 PM	0	64	6	0	70	302	0	64	0	366	29	61	0	0	90	0	0	0	0	0	526
Total	0	310	20	0	330	1281	5	220	0	1506	93	221	0	0	314	0	0	0	0	0	2150
05:00 PM	0	87	7	0	94	330	1	57	0	388	17	57	0	0	74	0	0	0	0	0	556
05:15 PM	0	73	7	0	80	355	0	69	0	424	23	69	0	0	92	0	0	0	0	0	596
05:30 PM	0	62	8	1	71	302	0	79	1	382	21	61	0	1	83	0	0	0	0	0	536
05:45 PM	0	62	4	0	66	294	1	60	0	355	14	61	0	0	75	0	0	0	0	0	496
Total	0	284	26	1	311	1281	2	265	1	1549	75	248	0	1	324	0	0	0	0	0	2184
*** BREAK ***																					
Grand Total	0	1271	91	1	1363	3500	13	726	1	4240	286	924	0	1	1211	0	0	0	0	0	6814
Apprch %	0	93.3	6.7	0.1		82.5	0.3	17.1	0		23.6	76.3	0	0.1		0	0	0	0		
Total %	0	18.7	1.3	0	20	51.4	0.2	10.7	0	62.2	4.2	13.6	0	0	17.8	0	0	0	0	0	
Cars	0	1242	90	1	1333	3282	10	713	1	4006	190	888	0	1	1079	0	0	0	0	0	6418
% Cars	0	97.7	98.9	100	97.8	93.8	76.9	98.2	100	94.5	66.4	96.1	0	100	89.1	0	0	0	0	0	94.2
Trucks	0	29	1	0	30	218	3	13	0	234	96	36	0	0	132	0	0	0	0	0	396
% Trucks	0	2.3	1.1	0	2.2	6.2	23.1	1.8	0	5.5	33.6	3.9	0	0	10.9	0	0	0	0	0	5.8

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 5_98th I40NORTH
Site Code : 5
Start Date : 4/7/2021
Page No : 2

	98TH From North					I40 NORTH RAMPS From East					98TH From South					I40 NORTH RAMPS From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	54	3	0	57	124	3	34	0	161	17	57	0	0	74	0	0	0	0	0	292
08:15 AM	0	68	9	0	77	107	1	45	0	153	21	78	0	0	99	0	0	0	0	0	329
08:30 AM	0	102	6	0	108	113	0	30	0	143	19	84	0	0	103	0	0	0	0	0	354
08:45 AM	0	112	8	0	120	122	1	25	0	148	15	47	0	0	62	0	0	0	0	0	330
Total Volume	0	336	26	0	362	466	5	134	0	605	72	266	0	0	338	0	0	0	0	0	1305
% App. Total	0	92.8	7.2	0		77	0.8	22.1	0		21.3	78.7	0	0		0	0	0	0		
PHF	.000	.750	.722	.000	.754	.940	.417	.744	.000	.939	.857	.792	.000	.000	.820	.000	.000	.000	.000	.000	.922

Peak Hour Analysis From 12:00 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:45 PM

04:45 PM	0	64	6	0	70	302	0	64	0	366	29					0	0	0	0	0	556
05:00 PM	0	87	7	0	94	330	1	57	0	388	17	57	0	0	74	0	0	0	0	0	556
05:15 PM	0	73	7	0	80	355	0	69	0	424	23	69	0	0	92	0	0	0	0	0	596
05:30 PM	0	62	8	1	71	302	0	79	1	382	21	61	0	1	83	0	0	0	0	0	536
Total Volume	0	286	28	1	315	1289	1	269	1	1560	90	248	0	1	339	0	0	0	0	0	2214
% App. Total	0	90.8	8.9	0.3		82.6	0.1	17.2	0.1		26.5	73.2	0	0.3		0	0	0	0		
PHF	.000	.822	.875	.250	.838	.908	.250	.851	.250	.920	.776	.899	.000	.250	.921	.000	.000	.000	.000	.000	.929

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 5_98th I40NORTH
Site Code : 5
Start Date : 4/7/2021
Page No : 3

Groups Printed- Cars

Start Time	98TH From North					I40 NORTH RAMPS From East					98TH From South					I40 NORTH RAMPS From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	0	72	4	0	76	100	1	19	0	120	7	35	0	0	42	0	0	0	0	0	238
07:15 AM	0	84	4	0	88	102	0	21	0	123	8	49	0	0	57	0	0	0	0	0	268
07:30 AM	0	97	6	0	103	113	0	32	0	145	5	44	0	0	49	0	0	0	0	0	297
07:45 AM	0	83	5	0	88	121	0	30	0	151	8	49	0	0	57	0	0	0	0	0	296
Total	0	336	19	0	355	436	1	102	0	539	28	177	0	0	205	0	0	0	0	0	1099
08:00 AM	0	52	3	0	55	107	1	33	0	141	6	55	0	0	61	0	0	0	0	0	257
08:15 AM	0	66	9	0	75	88	1	42	0	131	11	76	0	0	87	0	0	0	0	0	293
08:30 AM	0	94	6	0	100	96	0	29	0	125	7	74	0	0	81	0	0	0	0	0	306
08:45 AM	0	108	8	0	116	97	0	23	0	120	8	43	0	0	51	0	0	0	0	0	287
Total	0	320	26	0	346	388	2	127	0	517	32	248	0	0	280	0	0	0	0	0	1143
*** BREAK ***																					
04:00 PM	0	82	6	0	88	299	0	46	0	345	15	43	0	0	58	0	0	0	0	0	491
04:15 PM	0	91	4	0	95	334	3	55	0	392	12	50	0	0	62	0	0	0	0	0	549
04:30 PM	0	68	3	0	71	298	2	55	0	355	22	62	0	0	84	0	0	0	0	0	510
04:45 PM	0	64	6	0	70	290	0	63	0	353	23	61	0	0	84	0	0	0	0	0	507
Total	0	305	19	0	324	1221	5	219	0	1445	72	216	0	0	288	0	0	0	0	0	2057
05:00 PM	0	87	7	0	94	318	1	57	0	376	11	56	0	0	67	0	0	0	0	0	537
05:15 PM	0	72	7	0	79	342	0	69	0	411	18	69	0	0	87	0	0	0	0	0	577
05:30 PM	0	60	8	1	69	289	0	79	1	369	17	61	0	1	79	0	0	0	0	0	517
05:45 PM	0	62	4	0	66	288	1	60	0	349	12	61	0	0	73	0	0	0	0	0	488
Total	0	281	26	1	308	1237	2	265	1	1505	58	247	0	1	306	0	0	0	0	0	2119
*** BREAK ***																					
Grand Total	0	1242	90	1	1333	3282	10	713	1	4006	190	888	0	1	1079	0	0	0	0	0	6418
Apprch %	0	93.2	6.8	0.1		81.9	0.2	17.8	0		17.6	82.3	0	0.1		0	0	0	0		
Total %	0	19.4	1.4	0	20.8	51.1	0.2	11.1	0	62.4	3	13.8	0	0	16.8	0	0	0	0	0	

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 5_98th I40NORTH
Site Code : 5
Start Date : 4/7/2021
Page No : 4

	98TH From North					I40 NORTH RAMPS From East					98TH From South					I40 NORTH RAMPS From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	83	5	0	88	121	0	30	0	151	8	49	0	0	57	0	0	0	0	0	296
08:00 AM	0	52	3	0	55	107	1	33	0	141	6	55	0	0	61	0	0	0	0	0	257
08:15 AM	0	66	9	0	75	88	1	42	0	131	11	76	0	0	87	0	0	0	0	0	293
08:30 AM	0	94	6	0	100	96	0	29	0	125	7	74	0	0	81	0	0	0	0	0	306
Total Volume	0	295	23	0	318	412	2	134	0	548	32	254	0	0	286	0	0	0	0	0	1152
% App. Total	0	92.8	7.2	0		75.2	0.4	24.5	0		11.2	88.8	0	0		0	0	0	0		
PHF	.000	.785	.639	.000	.795	.851	.500	.798	.000	.907	.727	.836	.000	.000	.822	.000	.000	.000	.000	.000	.941

Peak Hour Analysis From 12:00 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:45 PM

04:45 PM	0	64	6	0	70	290	0	63	0	353	23					0	0	0	0	0	
05:00 PM	0	87	7	0	94	318	1	57	0	376	11	56	0	0	67	0	0	0	0	0	537
05:15 PM	0	72	7	0	79	342	0	69	0	411	18	69	0	0	87	0	0	0	0	0	577
05:30 PM	0	60	8	1	69	289	0	79	1	369	17	61	0	1	79	0	0	0	0	0	517
Total Volume	0	283	28	1	312	1239	1	268	1	1509	69	247	0	1	317	0	0	0	0	0	2138
% App. Total	0	90.7	9	0.3		82.1	0.1	17.8	0.1		21.8	77.9	0	0.3		0	0	0	0		
PHF	.000	.813	.875	.250	.830	.906	.250	.848	.250	.918	.750	.895	.000	.250	.911	.000	.000	.000	.000	.000	.926

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 5_98th I40NORTH
Site Code : 5
Start Date : 4/7/2021
Page No : 5

Groups Printed- Trucks

Start Time	98TH From North					I40 NORTH RAMPS From East					98TH From South					I40 NORTH RAMPS From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	0	2	0	0	2	2	0	2	0	4	6	2	0	0	8	0	0	0	0	0	14
07:15 AM	0	1	0	0	1	13	0	3	0	16	3	6	0	0	9	0	0	0	0	0	26
07:30 AM	0	0	0	0	0	14	0	0	0	14	7	2	0	0	9	0	0	0	0	0	23
07:45 AM	0	2	0	0	2	7	0	0	0	7	2	2	0	0	4	0	0	0	0	0	13
Total	0	5	0	0	5	36	0	5	0	41	18	12	0	0	30	0	0	0	0	0	76
08:00 AM	0	2	0	0	2	17	2	1	0	20	11	2	0	0	13	0	0	0	0	0	35
08:15 AM	0	2	0	0	2	19	0	3	0	22	10	2	0	0	12	0	0	0	0	0	36
08:30 AM	0	8	0	0	8	17	0	1	0	18	12	10	0	0	22	0	0	0	0	0	48
08:45 AM	0	4	0	0	4	25	1	2	0	28	7	4	0	0	11	0	0	0	0	0	43
Total	0	16	0	0	16	78	3	7	0	88	40	18	0	0	58	0	0	0	0	0	162

*** BREAK ***

04:00 PM	0	2	1	0	3	20	0	0	0	20	4	1	0	0	5	0	0	0	0	0	28
04:15 PM	0	3	0	0	3	16	0	0	0	16	3	3	0	0	6	0	0	0	0	0	25
04:30 PM	0	0	0	0	0	12	0	0	0	12	8	1	0	0	9	0	0	0	0	0	21
04:45 PM	0	0	0	0	0	12	0	1	0	13	6	0	0	0	6	0	0	0	0	0	19
Total	0	5	1	0	6	60	0	1	0	61	21	5	0	0	26	0	0	0	0	0	93
05:00 PM	0	0	0	0	0	12	0	0	0	12	6	1	0	0	7	0	0	0	0	0	19
05:15 PM	0	1	0	0	1	13	0	0	0	13	5	0	0	0	5	0	0	0	0	0	19
05:30 PM	0	2	0	0	2	13	0	0	0	13	4	0	0	0	4	0	0	0	0	0	19
05:45 PM	0	0	0	0	0	6	0	0	0	6	2	0	0	0	2	0	0	0	0	0	8
Total	0	3	0	0	3	44	0	0	0	44	17	1	0	0	18	0	0	0	0	0	65

*** BREAK ***

Grand Total	0	29	1	0	30	218	3	13	0	234	96	36	0	0	132	0	0	0	0	0	396
Apprch %	0	96.7	3.3	0		93.2	1.3	5.6	0		72.7	27.3	0	0		0	0	0	0	0	
Total %	0	7.3	0.3	0	7.6	55.1	0.8	3.3	0	59.1	24.2	9.1	0	0	33.3	0	0	0	0	0	

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development
Traffic Impact Analysis
Turning Movement Count

File Name : 5_98th I40NORTH
Site Code : 5
Start Date : 4/7/2021
Page No : 6

	98TH From North					I40 NORTH RAMPS From East					98TH From South					I40 NORTH RAMPS From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	2	0	0	2	17	2	1	0	20	11	2	0	0	13	0	0	0	0	0	35
08:15 AM	0	2	0	0	2	19	0	3	0	22	10	2	0	0	12	0	0	0	0	0	36
08:30 AM	0	8	0	0	8	17	0	1	0	18	12	10	0	0	22	0	0	0	0	0	48
08:45 AM	0	4	0	0	4	25	1	2	0	28	7	4	0	0	11	0	0	0	0	0	43
Total Volume	0	16	0	0	16	78	3	7	0	88	40	18	0	0	58	0	0	0	0	0	162
% App. Total	0	100	0	0		88.6	3.4	8	0		69	31	0	0		0	0	0	0		
PHF	.000	.500	.000	.000	.500	.780	.375	.583	.000	.786	.833	.450	.000	.000	.659	.000	.000	.000	.000	.000	.844

Peak Hour Analysis From 12:00 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	0	2	1	3	20	16	0	0	0	16	3	3	0	0	6	0	0	0	0	0	28
04:15 PM	0	3	0	0	3	16	0	0	0	16	8	1	0	0	9	0	0	0	0	0	25
04:30 PM	0	0	0	0	0	12	0	0	0	12	8	1	0	0	9	0	0	0	0	0	21
04:45 PM	0	0	0	0	0	12	0	1	0	13	6	0	0	0	6	0	0	0	0	0	19
Total Volume	0	5	1	0	6	60	0	1	0	61	21	5	0	0	26	0	0	0	0	0	93
% App. Total	0	83.3	16.7	0		98.4	0	1.6	0		80.8	19.2	0	0		0	0	0	0		
PHF	.000	.417	.250	.000	.500	.750	.000	.250	.000	.763	.656	.417	.000	.000	.722	.000	.000	.000	.000	.000	.830

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development

Traffic Impact Analysis

Turning Movement Count

File Name : 6_Bluewater-90th-AM

Site Code : 6

Start Date : 4/7/2021

Page No : 1

Groups Printed- Cars - Trucks

Start Time	90TH From North					BLUEWATER From East					90TH From South					BLUEWATER From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	1	7	1	0	9	3	1	0	0	4	3	24	5	0	32	2	9	3	0	14	59
07:15 AM	2	12	6	0	20	5	1	2	0	8	2	38	8	0	48	10	4	2	0	16	92
07:30 AM	2	16	3	0	21	8	3	7	1	19	3	31	16	0	50	5	7	2	0	14	104
07:45 AM	2	5	4	0	11	27	6	4	2	39	3	31	37	0	71	8	7	0	0	15	136
Total	7	40	14	0	61	43	11	13	3	70	11	124	66	0	201	25	27	7	0	59	391
08:00 AM	2	8	5	0	15	26	9	6	2	43	0	24	28	0	52	6	15	1	0	22	132
08:15 AM	2	10	12	0	24	6	3	2	1	12	2	14	14	0	30	1	9	1	0	11	77
08:30 AM	0	6	7	0	13	7	5	2	0	14	2	11	4	0	17	5	7	4	0	16	60
08:45 AM	2	3	1	0	6	4	7	2	0	13	3	11	2	0	16	5	11	1	0	17	52
Total	6	27	25	0	58	43	24	12	3	82	7	60	48	0	115	17	42	7	0	66	321
*** BREAK ***																					
04:00 PM	2	25	11	1	39	13	8	3	0	24	2	4	4	0	10	6	11	6	0	23	96
04:15 PM	2	26	9	0	37	14	11	3	0	28	2	13	5	0	20	8	8	4	0	20	105
04:30 PM	1	56	5	1	63	10	6	2	0	18	1	13	6	0	20	2	8	7	1	18	119
04:45 PM	0	27	10	0	37	6	7	3	0	16	2	10	6	0	18	6	11	4	0	21	92
Total	5	134	35	2	176	43	32	11	0	86	7	40	21	0	68	22	38	21	1	82	412
05:00 PM	1	24	6	0	31	9	13	6	0	28	2	14	7	0	23	8	7	5	0	20	102
05:15 PM	2	23	11	0	36	14	17	6	0	37	2	12	5	0	19	9	15	11	0	35	127
05:30 PM	1	34	7	0	42	23	2	6	0	31	1	8	10	0	19	11	13	2	0	26	118
05:45 PM	1	22	7	0	30	11	16	1	0	28	4	14	2	0	20	10	10	2	0	22	100
Total	5	103	31	0	139	57	48	19	0	124	9	48	24	0	81	38	45	20	0	103	447
*** BREAK ***																					
Grand Total	23	304	105	2	434	186	115	55	6	362	34	272	159	0	465	102	152	55	1	310	1571
Apprch %	5.3	70	24.2	0.5		51.4	31.8	15.2	1.7		7.3	58.5	34.2	0		32.9	49	17.7	0.3		
Total %	1.5	19.4	6.7	0.1	27.6	11.8	7.3	3.5	0.4	23	2.2	17.3	10.1	0	29.6	6.5	9.7	3.5	0.1	19.7	
Cars	21	299	96	2	418	184	112	54	6	356	33	267	153	0	453	96	151	54	1	302	1529
% Cars	91.3	98.4	91.4	100	96.3	98.9	97.4	98.2	100	98.3	97.1	98.2	96.2	0	97.4	94.1	99.3	98.2	100	97.4	97.3
Trucks	2	5	9	0	16	2	3	1	0	6	1	5	6	0	12	6	1	1	0	8	42
% Trucks	8.7	1.6	8.6	0	3.7	1.1	2.6	1.8	0	1.7	2.9	1.8	3.8	0	2.6	5.9	0.7	1.8	0	2.6	2.7

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development

Traffic Impact Analysis

Turning Movement Count

File Name : 6_Bluewater-90th-AM

Site Code : 6

Start Date : 4/7/2021

Page No : 2

Start Time	90TH From North					BLUEWATER From East					90TH From South					BLUEWATER From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:15 AM

07:15 AM	2	12	6	0	20	5	1	2	0	8	2	38	8	0	48	10	4	2	0	16	92
07:30 AM	2	16	3	0	21	8	3	7	1	19	3	31	16	0	50	5	7	2	0	14	104
07:45 AM	2	5	4	0	11	27	6	4	2	39	3	31	37	0	71	8	7	0	0	15	136
08:00 AM	2	8	5	0	15	26	9	6	2	43	0	24	28	0	52	6	15	1	0	22	132
Total Volume	8	41	18	0	67	66	19	19	5	109	8	124	89	0	221	29	33	5	0	67	464
% App. Total	11.9	61.2	26.9	0		60.6	17.4	17.4	4.6		3.6	56.1	40.3	0		43.3	49.3	7.5	0		
PHF	1.00	.641	.750	.000	.798	.611	.528	.679	.625	.634	.667	.816	.601	.000	.778	.725	.550	.625	.000	.761	.853
Cars	7	39	14	0	60	65	18	18	5	106	8	121	86	0	215	27	33	5	0	65	446
% Cars	87.5	95.1	77.8	0	89.6	98.5	94.7	94.7	100	97.2	100	97.6	96.6	0	97.3	93.1	100	100	0	97.0	96.1
Trucks	1	2	4	0	7	1	1	1	0	3	0	3	3	0	6	2	0	0	0	2	18
% Trucks	12.5	4.9	22.2	0	10.4	1.5	5.3	5.3	0	2.8	0	2.4	3.4	0	2.7	6.9	0	0	0	3.0	3.9

Peak Hour Analysis From 12:00 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 05:00 PM

05:00 PM	1	24	6	0	31	9	13	6				14			23						
05:15 PM	2	23	11	0	36	14	17	6	0	37	2	12	5	0	19	9	15	11	0	35	127
05:30 PM	1	34	7	0	42	23	2	6	0	31	1	8	10	0	19	11	13	2	0	26	118
05:45 PM	1	22	7	0	30	11	16	1	0	28	4	14	2	0	20	10	10	2	0	22	100
Total Volume	5	103	31	0	139	57	48	19	0	124	9	48	24	0	81	38	45	20	0	103	447
% App. Total	3.6	74.	22.	0		46	38.	15.	0		11.	59.	29.	0		36.	43.	19.	0		
		1	3				7	3			1	3	6			9	7	4			
PHF	.62	.75	.70	.00	.827	.62	.70	.79	.00	.838	.56	.85	.60	.00	.880	.86	.75	.45	.00	.736	.880
	5	7	5	0		0	6	2	0		3	7	0	0		4	0	5	0		
Cars	5	103	31	0	139	56	47	19	0	122	9	48	24	0	81	35	44	20	0	99	441
% Cars	100	100	100	0	100	98.	97.	100	0	98.4	100	100	100	0	100	92.	97.	100	0	96.1	98.7
						2	9									1	8				
Trucks	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	3	1	0	0	4	6
% Trucks	0	0	0	0	0	1.8	2.1	0	0	1.6	0	0	0	0	0	7.9	2.2	0	0	3.9	1.3

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development

Traffic Impact Analysis

Turning Movement Count

File Name : 6_Bluewater-90th-AM

Site Code : 6

Start Date : 4/7/2021

Page No : 3

Groups Printed- Cars

Start Time	90TH From North					BLUEWATER From East					90TH From South					BLUEWATER From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	1	7	1	0	9	3	1	0	0	4	2	24	3	0	29	2	9	3	0	14	56
07:15 AM	1	12	6	0	19	5	1	2	0	8	2	38	7	0	47	10	4	2	0	16	90
07:30 AM	2	16	3	0	21	8	3	7	1	19	3	30	16	0	49	5	7	2	0	14	103
07:45 AM	2	5	2	0	9	26	5	3	2	36	3	29	35	0	67	7	7	0	0	14	126
Total	6	40	12	0	58	42	10	12	3	67	10	121	61	0	192	24	27	7	0	58	375
08:00 AM	2	6	3	0	11	26	9	6	2	43	0	24	28	0	52	5	15	1	0	21	127
08:15 AM	1	10	10	0	21	6	3	2	1	12	2	13	13	0	28	1	9	1	0	11	72
08:30 AM	0	5	5	0	10	7	5	2	0	14	2	11	4	0	17	5	7	3	0	15	56
08:45 AM	2	3	1	0	6	4	7	2	0	13	3	11	2	0	16	5	11	1	0	17	52
Total	5	24	19	0	48	43	24	12	3	82	7	59	47	0	113	16	42	6	0	64	307

*** BREAK ***

04:00 PM	2	25	11	1	39	13	8	3	0	24	2	4	4	0	10	6	11	6	0	23	96
04:15 PM	2	25	9	0	36	14	11	3	0	28	2	12	5	0	19	8	8	4	0	20	103
04:30 PM	1	55	5	1	62	10	6	2	0	18	1	13	6	0	20	2	8	7	1	18	118
04:45 PM	0	27	9	0	36	6	6	3	0	15	2	10	6	0	18	5	11	4	0	20	89
Total	5	132	34	2	173	43	31	11	0	85	7	39	21	0	67	21	38	21	1	81	406
05:00 PM	1	24	6	0	31	9	13	6	0	28	2	14	7	0	23	7	6	5	0	18	100
05:15 PM	2	23	11	0	36	13	17	6	0	36	2	12	5	0	19	8	15	11	0	34	125
05:30 PM	1	34	7	0	42	23	2	6	0	31	1	8	10	0	19	10	13	2	0	25	117
05:45 PM	1	22	7	0	30	11	15	1	0	27	4	14	2	0	20	10	10	2	0	22	99
Total	5	103	31	0	139	56	47	19	0	122	9	48	24	0	81	35	44	20	0	99	441

*** BREAK ***

Grand Total	21	299	96	2	418	184	112	54	6	356	33	267	153	0	453	96	151	54	1	302	1529
Apprch %	5	71.5	23	0.5		51.7	31.5	15.2	1.7		7.3	58.9	33.8	0		31.8	50	17.9	0.3		
Total %	1.4	19.6	6.3	0.1	27.3	12	7.3	3.5	0.4	23.3	2.2	17.5	10	0	29.6	6.3	9.9	3.5	0.1	19.8	

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development

Traffic Impact Analysis

Turning Movement Count

File Name : 6_Bluewater-90th-AM

Site Code : 6

Start Date : 4/7/2021

Page No : 4

	90TH From North					BLUEWATER From East					90TH From South					BLUEWATER From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	1	12	6	0	19	5	1	2	0	8	2	38	7	0	47	10	4	2	0	16	90
07:30 AM	2	16	3	0	21	8	3	7	1	19	3	30	16	0	49	5	7	2	0	14	103
07:45 AM	2	5	2	0	9	26	5	3	2	36	3	29	35	0	67	7	7	0	0	14	126
08:00 AM	2	6	3	0	11	26	9	6	2	43	0	24	28	0	52	5	15	1	0	21	127
Total Volume	7	39	14	0	60	65	18	18	5	106	8	121	86	0	215	27	33	5	0	65	446
% App. Total	11.7	65	23.3	0		61.3	17	17	4.7		3.7	56.3	40	0		41.5	50.8	7.7	0		
PHF	.875	.609	.583	.000	.714	.625	.500	.643	.625	.616	.667	.796	.614	.000	.802	.675	.550	.625	.000	.774	.878

Peak Hour Analysis From 12:00 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 05:00 PM

05:00 PM	1	24	6	0	31	9	13	6				14			23						
05:15 PM	2	23	11	0	36	13	17	6	0	36	2	12	5	0	19	8	15	11	0	34	125
05:30 PM	1	34	7	0	42	23	2	6	0	31	1	8	10	0	19	10	13	2	0	25	117
05:45 PM	1	22	7	0	30	11	15	1	0	27	4	14	2	0	20	10	10	2	0	22	99
Total Volume	5	103	31	0	139	56	47	19	0	122	9	48	24	0	81	35	44	20	0	99	441
% App. Total	3.6	74.	22.	0		45.	38.	15.	0		11.	59.	29.	0		35.	44.	20.	0		
		1	3			9	5	6			1	3	6			4	4	2			
PHF	.62	.75	.70	.00	.827	.60	.69	.79	.00	.847	.56	.85	.60	.00	.880	.87	.73	.45	.00	.728	.882
	5	7	5	0		9	1	2	0		3	7	0	0		5	3	5	0		

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development

Traffic Impact Analysis

Turning Movement Count

File Name : 6_Bluewater-90th-AM

Site Code : 6

Start Date : 4/7/2021

Page No : 5

Groups Printed- Trucks

	90TH From North					BLUEWATER From East					90TH From South					BLUEWATER From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	2	0	3	0	0	0	0	0	3
07:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
07:45 AM	0	0	2	0	2	1	1	1	0	3	0	2	2	0	4	1	0	0	0	1	10
Total	1	0	2	0	3	1	1	1	0	3	1	3	5	0	9	1	0	0	0	1	16
08:00 AM	0	2	2	0	4	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	5
08:15 AM	1	0	2	0	3	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	5
08:30 AM	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4
*** BREAK ***																					
Total	1	3	6	0	10	0	0	0	0	0	0	1	1	0	2	1	0	1	0	2	14
*** BREAK ***																					
04:15 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
04:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	3
Total	0	2	1	0	3	0	1	0	0	1	0	1	0	0	1	1	0	0	0	1	6
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2
05:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
05:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	3	1	0	0	4	6
*** BREAK ***																					
Grand Total	2	5	9	0	16	2	3	1	0	6	1	5	6	0	12	6	1	1	0	8	42
Apprch %	12.5	31.2	56.2	0		33.3	50	16.7	0		8.3	41.7	50	0		75	12.5	12.5	0		
Total %	4.8	11.9	21.4	0	38.1	4.8	7.1	2.4	0	14.3	2.4	11.9	14.3	0	28.6	14.3	2.4	2.4	0	19	

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309

Albuquerque, NM 87120 (505) 508-3374

Transforming Infrastructure Needs into Sustainable Solutions

98th & Bluewater Commercial Development

Traffic Impact Analysis

Turning Movement Count

File Name : 6_Bluewater-90th-AM

Site Code : 6

Start Date : 4/7/2021

Page No : 6

	90TH From North					BLUEWATER From East					90TH From South					BLUEWATER From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	2	0	2	1	1	1	0	3	0	2	2	0	4	1	0	0	0	1	10
08:00 AM	0	2	2	0	4	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	5
08:15 AM	1	0	2	0	3	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	5
08:30 AM	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4
Total Volume	1	3	8	0	12	1	1	1	0	3	0	3	3	0	6	2	0	1	0	3	24
% App. Total	8.3	25	66.7	0		33.3	33.3	33.3	0		0	50	50	0		66.7	0	33.3	0		
PHF	.250	.375	1.00	.000	.750	.250	.250	.250	.000	.250	.000	.375	.375	.000	.375	.500	.000	.250	.000	.750	.600

Peak Hour Analysis From 12:00 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:15 PM

04:15 PM	0	1			1							1			1						
04:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	3
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2
Total Volume	0	2	1	0	3	0	1	0	0	1	0	1	0	0	1	2	1	0	0	3	8
% App. Total	0	66.7	33.3	0		0	100	0	0		0	100	0	0		66.7	33.3	0	0		
PHF	.00	.50	.25	.00	.750	.00	.25	.00	.00	.250	.00	.25	.00	.00	.250	.50	.25	.00	.00	.375	.667
	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		

Observed Counts (TAQA)_98th-Bluewater

COGID	Route	FuncClass	FromLocation	StartDate	Capac_NB	Capac_SB	Capac_EB	Capac_WB	Daily_Vol	DayVol_NB	DayVol_SB	DayVol_EB	DayVol_WB	DDS	AM_Time	AMHr_Vol	AMDir_Split	AM_Vol_NB	AM_Vol_SB	AM_Vol_EB	AM_Vol_WB	PM_Time	PMHr_Vol	PMDir_Split	PM_Vol_NB	PM_Vol_SB	PM_Vol_EB	PM_Vol_WB	VC_AM_NB	VC_AM_SB	VC_AM_EB	VC_AM_WB	VC_PM_NB	VC_PM_SB	VC_PM_EB	VC_PM_WB
24348	I-40 WBD	Urban Interstate	98TH OFF RAMP - UNSER ON RAMP	2015-03-0	0	0	0	5500	29480	0	0	0	29480	1	815	1357	1	0	0	0	1357	1645	2524	1	0	0	0	2524	0	0	0	0.25	0	0	0	0.46
24392	I-40 EBD	Urban Interstate	98TH ON RAMP 2 - UNSER OFF RAMP	2015-03-0	0	0	5500	0	26437	0	0	26437	0	1	630	2345	1	0	0	2345	0	1500	1654	1	0	0	1654	0	0	0	0.43	0	0	0	0.3	0
24442	ARROYO VISTA	Urban Minor Arterial	NORTH OF I-40 NORTH RAMPS	2018-12-0	1630	1630	0	0	10723	5949	4774	0	0	0.55	745	1241	0.66	813	428	0	0	1515	1045	0.59	611	434	0	0	0.5	0.26	0	0	0.38	0.27	0	0
24443	ARROYO VISTA	Urban Minor Arterial	NORTH OF I-40 WBD OFF RAMP	2018-09-1	1630	2520	0	0	8461	3911	4550	0	0	0.54	645	1063	0.53	501	562	0	0	1515	766	0.53	364	402	0	0	0.31	0.22	0	0	0.22	0.16	0	0
24444	98TH STREET	Urban Principal Arterial	NORTH OF I-40 S. RAMPS	2017-06-0	2000	2000	0	0	23340	4490	18850	0	0	0.81	730	1232	0.73	331	901	0	0	1730	2080	0.83	363	1717	0	0	0.17	0.45	0	0	0.18	0.86	0	0
24446	98TH STREET	Urban Principal Arterial	NORTH OF I-40 EBD ON RAMP	2018-03-0	2000	2000	0	0	24726	5548	19178	0	0	0.78	700	1726	0.6	686	1040	0	0	1530	2271	0.82	404	1867	0	0	0.34	0.52	0	0	0.2	0.93	0	0
24676	I-40 WBD	Urban Interstate	98TH ON RAMP - 98TH OFF RAMP	2019-05-1	0	0	0	3660	19417	0	0	0	19417	1	930	1252	1	0	0	0	1252	1715	1300	1	0	0	0	1300	0	0	0	0.34	0	0	0	0.35
24824	I-40 EBD	Urban Interstate	98TH ON RAMP 1 - 98TH ON RAMP 2	1992-05-0	0	0	3660	0	11287	0	0	11287	0	1	730	880	1	0	0	880	0	1700	824	1	0	0	824	0	0	0	0.24	0	0	0	0.22	0
24992	I-40 EBD	Urban Interstate	98TH OFF RAMP - 98TH ON RAMP 1	2019-05-1	0	0	3660	0	21252	0	0	21252	0	1	845	1204	1	0	0	1204	0	1815	1700	1	0	0	1700	0	0	0	0.33	0	0	0	0.46	0
25728	CENTRAL	Urban Principal Arterial	WEST OF BRIDGE	2016-04-0	0	0	2000	2000	18799	0	0	8794	10005	0.53	700	1378	0.62	0	0	860	518	1600	1533	0.57	0	0	656	877	0	0	0.43	0.26	0	0	0.33	0.44
25764	98TH STREET	Urban Principal Arterial	SOUTH OF I-40 S. RAMPS	2019-09-1	2000	2000	0	0	39463	20586	18877	0	0	0.52	645	3039	0.71	2145	894	0	0	1615	3062	0.61	1195	1867	0	0	1.07	0.45	0	0	0.6	0.93	0	0
26293	CENTRAL	Urban Principal Arterial	EAST OF 114TH ST.	2019-11-1	0	0	2000	2000	8739	0	0	4196	4543	0.52	645	668	0.65	0	0	434	234	1630	845	0.58	0	0	359	486	0	0	0.22	0.12	0	0	0.18	0.24
26532	98TH STREET	Urban Principal Arterial	SOUTH OF CENTRAL	2017-08-1	2000	2000	0	0	30258	16208	14050	0	0	0.54	645	2193	0.79	1735	458	0	0	1700	2358	0.61	912	1446	0	0	0.87	0.23	0	0	0.46	0.72	0	0

Traffic Count Data Sheet

Year Counts Taken:

2019

E-W Street:

Central Ave.

Signalized

Speed Limit (Central Ave.)=

55 MPH

N-S Street:

98th St.

Speed Limit (98th St.)=

45 MPH

2/7/19

Begin Time	End Time	Eastbound (Central Ave.)			Westbound (Central Ave.)			Northbound (98th St.)			Southbound (98th St.)		
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
7:00 AM	7:15 AM	98	44	0	0	29	26	32	0	3	365	46	0
7:15 AM	7:30 AM	124	67	6	0	21	27	53	0	4	410	35	0
7:30 AM	7:45 AM	96	60	7	0	28	27	76	0	0	381	30	0
7:45 AM	8:00 AM	88	61	5	0	34	38	34	0	7	395	53	1
8:00 AM	8:15 AM	72	42	3	0	38	39	46	0	4	292	49	1
8:15 AM	8:30 AM	46	33	7	0	45	46	39	0	4	297	34	1
8:30 AM	8:45 AM	48	28	5	0	34	44	44	0	5	299	38	1
8:45 AM	9:00 AM	22	24	1	0	11	19	24	0	4	145	22	0
AM Peak Hour Volumes		406	232	18	0	112	118	195	0	14	1551	164	1
% of Total Traffic		11.9%	6.8%	0.5%		3.3%	3.5%	5.7%		0.4%	45.4%	4.8%	
% Directional			19.2%				12.4%				50.6%		
AM Peak Hour Factor			0.83				0.81				0.95		
									Intersection				0.91

Begin Time	End Time	Eastbound (Central Ave.)			Westbound (Central Ave.)			Northbound (98th St.)			Southbound (98th St.)		
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
4:00 PM	4:15 PM	43	55	8	0	57	40	31	1	9	207	39	0
4:15 PM	4:30 PM	54	37	13	0	79	54	29	0	8	173	39	0
4:30 PM	4:45 PM	43	40	6	0	58	49	36	0	9	199	41	0
4:45 PM	5:00 PM	44	49	8	0	70	52	39	4	8	202	35	0
5:00 PM	5:15 PM	52	55	11	2	71	57	42	0	14	189	31	1
5:15 PM	5:30 PM	46	57	14	0	75	54	36	0	9	174	26	0
5:30 PM	5:45 PM	36	28	3	1	48	56	42	0	4	200	33	0
5:45 PM	6:00 PM	18	16	3	0	19	22	8	0	1	73	11	0
PM Peak Hour Volumes		184	181	35	0	264	195	135	5	34	781	154	0
% of Total Traffic		5.2%	5.1%	1.0%		7.4%	5.5%	3.8%		1.0%	22.0%	4.3%	
% Directional			11.3%				16.8%				27.3%		
PM Peak Hour Factor			0.94				0.92				0.95		
									Intersection				0.98

Traffic Count Data Sheet

Year Counts Taken: **2019** E-W Street: **I-40 S. Ramp** Speed Limit (I-40 S. Ramp)= **30** MPH
 N-S Street: **98th St.** Speed Limit (98th St.)= **45** MPH
2/7/19

Signalized

Begin Time	End Time	Eastbound (I-40 S. Ramp)			Westbound (I-40 S. Ramp)			Northbound (98th St.)			Southbound (98th St.)		
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
7:00 AM	7:15 AM	5	0	0	0	0	0	0	0	0	174	0	0
7:15 AM	7:30 AM	7	0	0	0	0	0	0	0	0	193	0	0
7:30 AM	7:45 AM	5	0	0	0	0	0	0	0	0	159	0	0
7:45 AM	8:00 AM	3	0	0	0	0	0	0	0	0	179	0	0
8:00 AM	8:15 AM	5	0	0	0	0	0	0	0	0	136	0	0
8:15 AM	8:30 AM	7	0	0	0	0	0	0	0	0	159	0	0
8:30 AM	8:45 AM	18	0	0	0	0	0	0	0	0	177	0	0
8:45 AM	9:00 AM	4	0	0	0	0	0	0	0	0	186	0	0
AM Peak Hour Volumes		20	0	0	0	0	0	0	0	0	705	0	0
% of Total Traffic		1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	56.0%	0.0%	0.0%
% Directional		1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	56.0%	0.0%	0.0%
AM Peak Hour Factor		0.71			Intersection 0.86			0.73			0.91		

Begin Time	End Time	Eastbound (I-40 S. Ramp)			Westbound (I-40 S. Ramp)			Northbound (98th St.)			Southbound (98th St.)		
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
4:00 PM	4:15 PM	3	0	0	0	0	0	0	0	0	497	0	0
4:15 PM	4:30 PM	5	0	0	0	0	0	0	0	0	461	0	0
4:30 PM	4:45 PM	8	0	0	0	0	0	0	0	0	454	0	0
4:45 PM	5:00 PM	9	0	0	0	0	0	0	0	0	411	0	0
5:00 PM	5:15 PM	4	0	0	0	0	0	0	0	0	431	0	0
5:15 PM	5:30 PM	12	0	0	0	0	0	0	0	0	418	0	0
5:30 PM	5:45 PM	9	0	0	0	0	0	0	0	0	422	0	0
5:45 PM	6:00 PM	5	0	0	0	0	0	0	0	0	428	0	0
PM Peak Hour Volumes		25	0	0	0	0	0	0	1	0	1823	0	0
% of Total Traffic		1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	84.4%	0.0%	0.0%
% Directional		1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	84.4%	0.0%	0.0%
PM Peak Hour Factor		0.69			Intersection 0.92			0.87			0.92		

	#DIV/0!	Intersection	
PM Peak Hour Factor	0.94	0.94	0.61

NMDOT - Data Management Bureau Traffic Monitoring Program **14599 Weekly Volume Report - Mon 09/16/2019 - Sun 09/22/2019**

Location ID: 14599 **98th at I-40**
Located On: FL-4005-P
Direction: 2-WAY
Community:
AADT: 36216

Type: SPOT
Period: Mon 09/16/2019 - Sun 09/22/2019

Start Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Avg
12:00 AM	344	330						337
1:00 AM	230	250						240
2:00 AM	202	239						221
3:00 AM	258	271						265
4:00 AM	485	444						465
5:00 AM	1087	1079						1083
6:00 AM	2223	2328						2276
7:00 AM	2880	2881						2881
8:00 AM	2480	2509						2495
9:00 AM	1912	1881						1897
10:00 AM	1703	1682						1693
11:00 AM	1717	1653						1685
12:00 PM	1921	1765						1843
1:00 PM	2002	1960						1981
2:00 PM	2365	2237						2301
3:00 PM	2723	2759						2741
4:00 PM	2992	3019						3006
5:00 PM	2773	3012						2893
6:00 PM	2332	2679						2506
7:00 PM	1939	2278						2109
8:00 PM	1642	1829						1736
9:00 PM	1094	1464						1279
10:00 PM	802	1050						926
11:00 PM	553	667						610
Total	38659	40266	0	0	0	0	0	
24HrTotal		38659	40266					39463
AM Pk Hr	7:00	7:00						
AM Peak	2880	2881						2881
PM Pk Hr	4:00	4:00						
PM Peak	2992	3019						3006
% Peak Hr	7.74%	7.50%						7.50%
% Peak Hr		7.74%	7.50%					7.62%

NMDOT - Data Management Bureau Traffic Monitoring Program **14599_POS Weekly Volume Report - Mon 09/16/2019 - Sun 09/22/2019**

Location ID: 14599_POS
Located On: FL-4005-P
Direction: POS
Community:
AADT: 18895

Type: SPOT
Period: Mon 09/16/2019 - Sun 09/22/2019

Start Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Avg
12:00 AM	137	113						125
1:00 AM	102	97						100
2:00 AM	103	106						105
3:00 AM	157	176						167
4:00 AM	365	343						354
5:00 AM	856	866						861
6:00 AM	1722	1773						1748
7:00 AM	1973	1981						1977
8:00 AM	1560	1607						1584
9:00 AM	1162	1159						1161
10:00 AM	989	988						989
11:00 AM	950	915						933
12:00 PM	984	901						943
1:00 PM	1026	1014						1020
2:00 PM	1209	1149						1179
3:00 PM	1262	1186						1224
4:00 PM	1238	1155						1197
5:00 PM	1075	1244						1160
6:00 PM	1019	1140						1080
7:00 PM	847	980						914
8:00 PM	588	785						687
9:00 PM	414	608						511
10:00 PM	281	392						337
11:00 PM	219	255						237
Total	20238	20933	0	0	0	0	0	
24HrTotal		20238	20933					20586
AM Pk Hr	7:00	7:00						
AM Peak	1973	1981						1977
PM Pk Hr	3:00	5:00						
PM Peak	1262	1244						1253
% Peak Hr	9.75%	9.46%						9.50%
% Peak Hr		9.75%	9.46%					9.61%

NMDOT - Data Management Bureau Traffic Monitoring Program

14599_NEG Weekly Volume Report - Mon 09/16/2019 - Sun 09/22/2019

Location ID: 14599_NEG
Located On: FL-4005-P
Direction: NEG
Community:
AADT: 17322

Type: SPOT
Period: Mon 09/16/2019 - Sun 09/22/2019

Start Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Avg	
12:00 AM	207	217						212	
1:00 AM	128	153						141	
2:00 AM	99	133						116	
3:00 AM	101	95						98	
4:00 AM	120	101						111	
5:00 AM	231	213						222	
6:00 AM	501	555						528	
7:00 AM	907	900						904	
8:00 AM	920	902						911	
9:00 AM	750	722						736	
10:00 AM	714	694						704	
11:00 AM	767	738						753	
12:00 PM	937	864						901	
1:00 PM	976	946						961	
2:00 PM	1156	1088						1122	
3:00 PM	1461	1573						1517	
4:00 PM	1754	1864						1809	
5:00 PM	1698	1768						1733	
6:00 PM	1313	1539						1426	
7:00 PM	1092	1298						1195	
8:00 PM	1054	1044						1049	
9:00 PM	680	856						768	
10:00 PM	521	658						590	
11:00 PM	334	412						373	
Total	18421	19333	0	0	0	0	0		
24HrTotal	18421		19333						18877
AM Pk Hr	8:00		8:00						
AM Peak	920		902						911
PM Pk Hr	4:00		4:00						
PM Peak	1754		1864						1809
% Peak Hr	9.52%		9.64%						10.00%
% Peak Hr		9.52%	9.64%						9.58%

NMDOT - Data Management Bureau Traffic Monitoring Program **10151 Weekly Volume Report - Mon 09/16/2019 - Sun 09/22/2019**

Location ID: 10151 ***I-40 EB OFF RAMP***
Located On: IX-40-P-153.0-A
Direction: 1-WAY
Community:
AADT: 1743

Type: SPOT
Period: Mon 09/16/2019 - Sun 09/22/2019

Start Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Avg	
12:00 AM	33	34						34	
1:00 AM	28	38						33	
2:00 AM	22	11						17	
3:00 AM	29	23						26	
4:00 AM	31	30						31	
5:00 AM	29	41						35	
6:00 AM	40	51						46	
7:00 AM	69	62						66	
8:00 AM	129	88						109	
9:00 AM	97	94						96	
10:00 AM	98	89						94	
11:00 AM	74	73						74	
12:00 PM	89	111						100	
1:00 PM	96	109						103	
2:00 PM	98	98						98	
3:00 PM	133	131						132	
4:00 PM	93	117						105	
5:00 PM	109	137						123	
6:00 PM	77	112						95	
7:00 PM	51	101						76	
8:00 PM	73	95						84	
9:00 PM	51	65						58	
10:00 PM	55	87						71	
11:00 PM	26	73						50	
Total	1630	1870	0	0	0	0	0		
24HrTotal	1630		1870						1750
AM Pk Hr	8:00		9:00						
AM Peak	129		94						112
PM Pk Hr	3:00		5:00						
PM Peak	133		137						135
% Peak Hr	8.16%		7.33%						7.50%
% Peak Hr		8.16%	7.33%						7.74%

NMDOT - Data Management Bureau Traffic Monitoring Program **10368 Weekly Volume Report - Mon 05/13/2019 - Sun 05/19/2019**

Location ID: 10368 ***I-40 EB ON1 (S-E Loop)***
Located On: IX-40-P-153.0-G
Direction: 1-WAY
Community:
AADT: 1887

Type: SPOT
Period: Mon 05/13/2019 - Sun 05/19/2019

Start Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Avg	
12:00 AM	7	6						7	
1:00 AM	1	1						1	
2:00 AM	2	3						3	
3:00 AM	10	10						10	
4:00 AM	21	19						20	
5:00 AM	89	82						86	
6:00 AM	242	252						247	
7:00 AM	299	313						306	
8:00 AM	192	202						197	
9:00 AM	101	111						106	
10:00 AM	76	95						86	
11:00 AM	82	64						73	
12:00 PM	93	76						85	
1:00 PM	80	89						85	
2:00 PM	82	106						94	
3:00 PM	86	85						86	
4:00 PM	84	109						97	
5:00 PM	83	96						90	
6:00 PM	60	79						70	
7:00 PM	105	90						98	
8:00 PM	36	42						39	
9:00 PM	94	70						82	
10:00 PM	14	33						24	
11:00 PM	6	9						8	
Total	1945	2042	0	0	0	0	0		
24HrTotal	1945		2042						1994
AM Pk Hr	7:00		7:00						
AM Peak	299		313						306
PM Pk Hr	7:00		4:00						
PM Peak	105		109						107
% Peak Hr	15.37%		15.33%						15.00%
% Peak Hr		15.37%	15.33%						15.35%

NMDOT - Data Management Bureau Traffic Monitoring Program **10434 Weekly Volume Report - Mon 05/13/2019 - Sun 05/19/2019**

Location ID: 10434 ***I-40 EB ON2 (N-E Ramp)***
Located On: IX-40-P-153.0-H
Direction: 1-WAY
Community:
AADT: 14816

Type: SPOT
Period: Mon 05/13/2019 - Sun 05/19/2019

Start Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Avg
12:00 AM	122	72						97
1:00 AM	69	64						67
2:00 AM	59	60						60
3:00 AM	170	162						166
4:00 AM	275	283						279
5:00 AM	744	812						778
6:00 AM	1500	1537						1519
7:00 AM	1623	1610						1617
8:00 AM	1214	1251						1233
9:00 AM	910	921						916
10:00 AM	751	748						750
11:00 AM	817	713						765
12:00 PM	869	756						813
1:00 PM	934	768						851
2:00 PM	834	948						891
3:00 PM	767	861						814
4:00 PM	740	740						740
5:00 PM	754	819						787
6:00 PM	673	690						682
7:00 PM	531	580						556
8:00 PM	449	416						433
9:00 PM	364	404						384
10:00 PM	241	292						267
11:00 PM	189	177						183
Total	15599	15684	0	0	0	0	0	
24HrTotal		15599	15684					15642
AM Pk Hr	7:00	7:00						
AM Peak	1623	1610						1617
PM Pk Hr	1:00	2:00						
PM Peak	934	948						941
% Peak Hr	10.40%	10.27%						10.00%
% Peak Hr		10.40%	10.27%					10.33%

NMDOT - Data Management Bureau Traffic Monitoring Program **10817 Weekly Volume Report - Mon 05/13/2019 - Sun 05/19/2019**

Location ID: 10817 ***I-40 WB ON (S-E + N-W)***
Located On: IX-40-P-153.0-T
Direction: 1-WAY
Community:
AADT: 1969

Type: SPOT
Period: Mon 05/13/2019 - Sun 05/19/2019

Start Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Avg
12:00 AM	34	29						32
1:00 AM	40	20						30
2:00 AM	10	21						16
3:00 AM	45	25						35
4:00 AM	49	21						35
5:00 AM	64	47						56
6:00 AM	92	75						84
7:00 AM	111	126						119
8:00 AM	94	126						110
9:00 AM	118	110						114
10:00 AM	122	97						110
11:00 AM	123	126						125
12:00 PM	138	116						127
1:00 PM	113	126						120
2:00 PM	101	112						107
3:00 PM	132	133						133
4:00 PM	130	154						142
5:00 PM	115	142						129
6:00 PM	95	123						109
7:00 PM	94	78						86
8:00 PM	63	99						81
9:00 PM	46	66						56
10:00 PM	60	101						81
11:00 PM	40	58						49
Total	2029	2131	0	0	0	0	0	
24HrTotal	2029	2131						2080
AM Pk Hr	11:00	7:00						
AM Peak	123	126						125
PM Pk Hr	12:00	4:00						
PM Peak	138	154						146
% Peak Hr	6.80%	7.23%						7.00%
% Peak Hr	6.80%	7.23%						7.01%

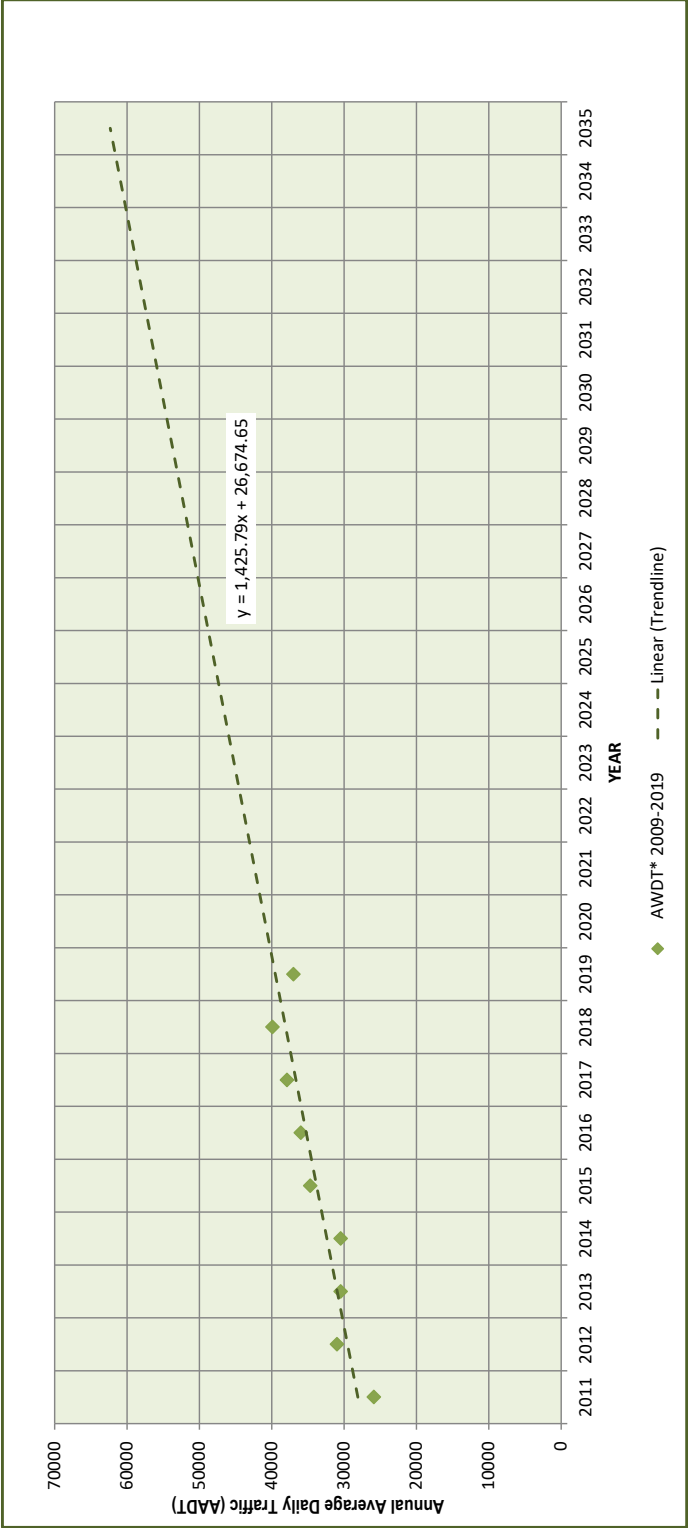
NMDOT - Data Management Bureau Traffic Monitoring Program **10592 Weekly Volume Report - Mon 05/13/2019 - Sun 05/19/2019**

Location ID: 10592 ***I-40 WB OFF (W-S + W-N)***
Located On: IX-40-P-153.0-N
Direction: 1-WAY
Community:
AADT: 18015

Type: SPOT
Period: Mon 05/13/2019 - Sun 05/19/2019

Start Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Avg
12:00 AM	233	213						223
1:00 AM	154	100						127
2:00 AM	74	96						85
3:00 AM	79	43						61
4:00 AM	80	77						79
5:00 AM	160	164						162
6:00 AM	389	384						387
7:00 AM	582	595						589
8:00 AM	616	632						624
9:00 AM	632	652						642
10:00 AM	722	612						667
11:00 AM	753	811						782
12:00 PM	955	919						937
1:00 PM	915	1036						976
2:00 PM	1210	1305						1258
3:00 PM	1765	1746						1756
4:00 PM	2165	2342						2254
5:00 PM	2208	2275						2242
6:00 PM	1695	1568						1632
7:00 PM	1406	1269						1338
8:00 PM	890	938						914
9:00 PM	493	550						522
10:00 PM	464	429						447
11:00 PM	313	329						321
Total	18953	19085	0	0	0	0	0	
24HrTotal		18953	19085					19019
AM Pk Hr	11:00	11:00						
AM Peak	753	811						782
PM Pk Hr	5:00	4:00						
PM Peak	2208	2342						2275
% Peak Hr	11.65%	12.27%						12.00%
% Peak Hr		11.65%	12.27%					11.96%

PROJECT: 98th & Bluewater TIS
Background Traffic Projection - 98th St. from Central to Avalon



YEAR	AWDT* 2009-2019	TRENDLINE
2009	26621	25249
2010	26222	26675
2011	25881	28100
2012	30989	29526
2013	30493	30952
2014	30493	32378
2015	34670	33804
2016	35987	35229
2017	37900	36655
2018	39900	38081
2019	37000	39507
2020		40933
2021		42358
2022		43784
2023		45210
2024		46636
2025		48062
2026		49487
2027		50913
2028		52339
2029		53765
2030		55190
2031		56616
2032		58042
2033		59468
2034		60894
2035		62319

$G_1 = 3.35\%$ 2009-2019 AADT compounded annual rate
 $G_2 = 4.58\%$ 2009-2019 Trendline compounded annual rate
 $G_3 = 1.02\%$ 2010-2035 UNM/BBER population projection for Bernalillo County

Use 3% / year traffic growth rate for 98th St.
 $GF_4 = 1.13$ Growth Factor to Year 2025
 $GF_{14} = 1.51$ Growth Factor to Year 2035

Comments:
High growth rate may not be sustainable over forecast period; limited developable land S. of Central Ave., but more developable land is available W. of 98th St.

*Source(s):
2009-2016 = MRCOG Transportation Analysis and Querying Application (TAQA) via www.taqa.mrcog-nm.gov/taqa/
2007-2019 = "MRCOG Traffic Flows for the Greater Albuquerque Area" (98th St., COGID #25764)

PROJECT: 98th & Bluewater TIS
Background Traffic Projection - Central Ave. East of 98th St.

YEAR	AWDT* 2009- 2019	TRENDLINE
2009	14725	14262
2010	14504	14537
2011	14200	14812
2012	13959	15087
2013	15439	15363
2014	15439	15638
2015	15825	15913
2016	17328	16189
2017	18300	16464
2018	19000	16739
2019	13300	17015
2020		17290
2021		17565
2022		17840
2023		18116
2024		18391
2025		18666
2026		18942
2027		19217
2028		19492
2029		19768
2030		20043
2031		20318
2032		20593
2033		20869
2034		21144
2035		21419

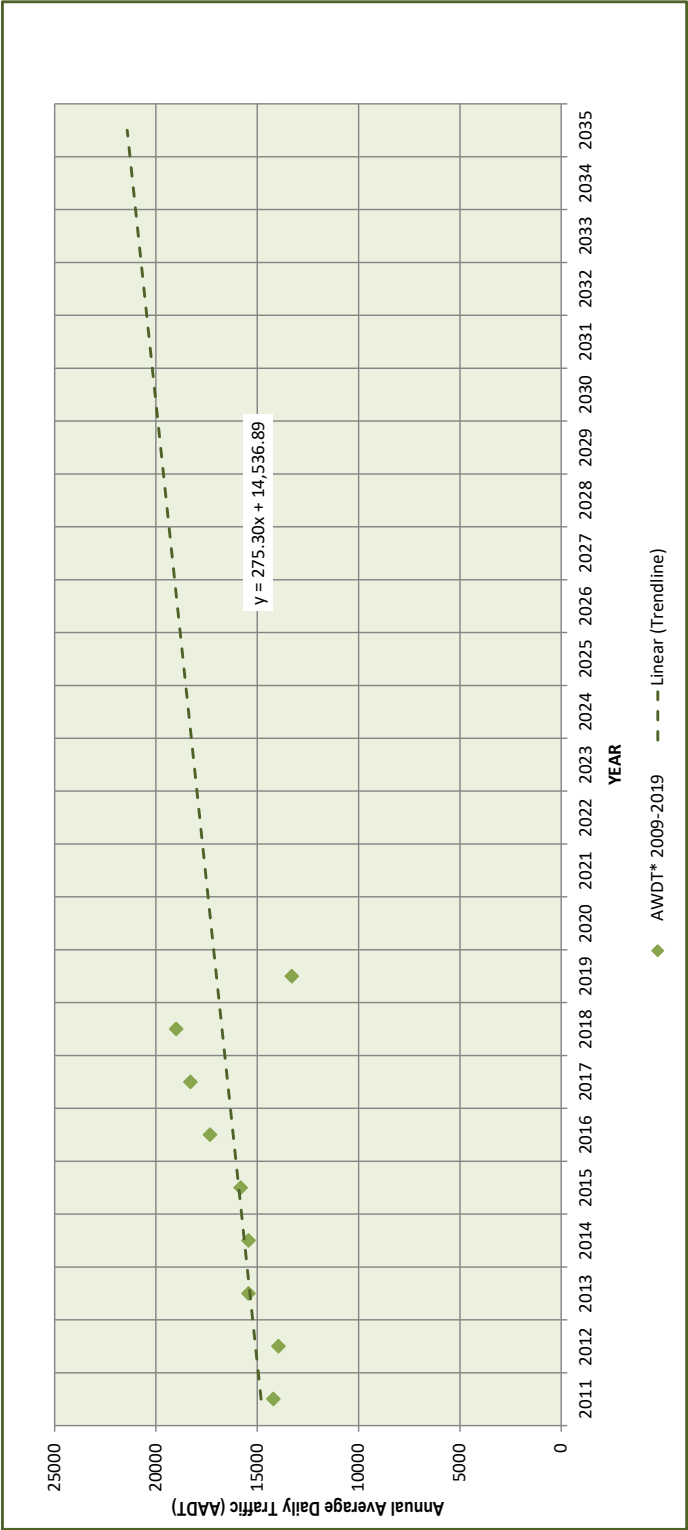
	growth
	rate

- G₁ = -1.01% 2009-2019 AADT compounded annual rate
- G₂ = 1.78% 2009-2019 Trendline compounded annual rate
- G₃ = 1.02% 2010-2035 UNM/BBER population projection for Bernalillo County

Use 1% / year traffic growth rate for Central Ave. GF₂= 1.04 Growth Factor to Year 2025
GF₁₄= 1.15 Growth Factor to Year 2035

Comments: Low-moderate growth; developable land available along Central Ave. and Bridge Blvd.

*Source(s):
2009-2016 = MRCOG Transportation Analysis and Querying Application (TAQA) via www.taqa.mrcog-nm.gov/taqa/
2007-2019 = "MRCOG Traffic Flows for the Greater Albuquerque Area" (98th St., COGID #25764)



PROJECT: 98th & Bluewater TIS
Background Traffic Projection - Bluewater West of Unser

YEAR	AWDT* 2009- 2019	TRENDLINE
2009	3187	2500
2010	4660	3208
2011	4599	3915
2012	4521	4623
2013	4406	5331
2014	4406	6039
2015	4516	6747
2016	7333	7455
2017	7700	8162
2018	8100	8870
2019	13000	9578
2020		10286
2021		10994
2022		11702
2023		12409
2024		13117
2025		13825
2026		14533
2027		15241
2028		15949
2029		16656
2030		17364
2031		18072
2032		18780
2033		19488
2034		20196
2035		20903

growth rate
981.30
981.30

- $G_1 = 15.09\%$ 2009-2019 AADT compounded annual rate
 $G_2 = 14.38\%$ 2009-2019 Trendline compounded annual rate
 $G_3 = 1.02\%$ 2010-2035 UNM/BBER population projection for Bernalillo County

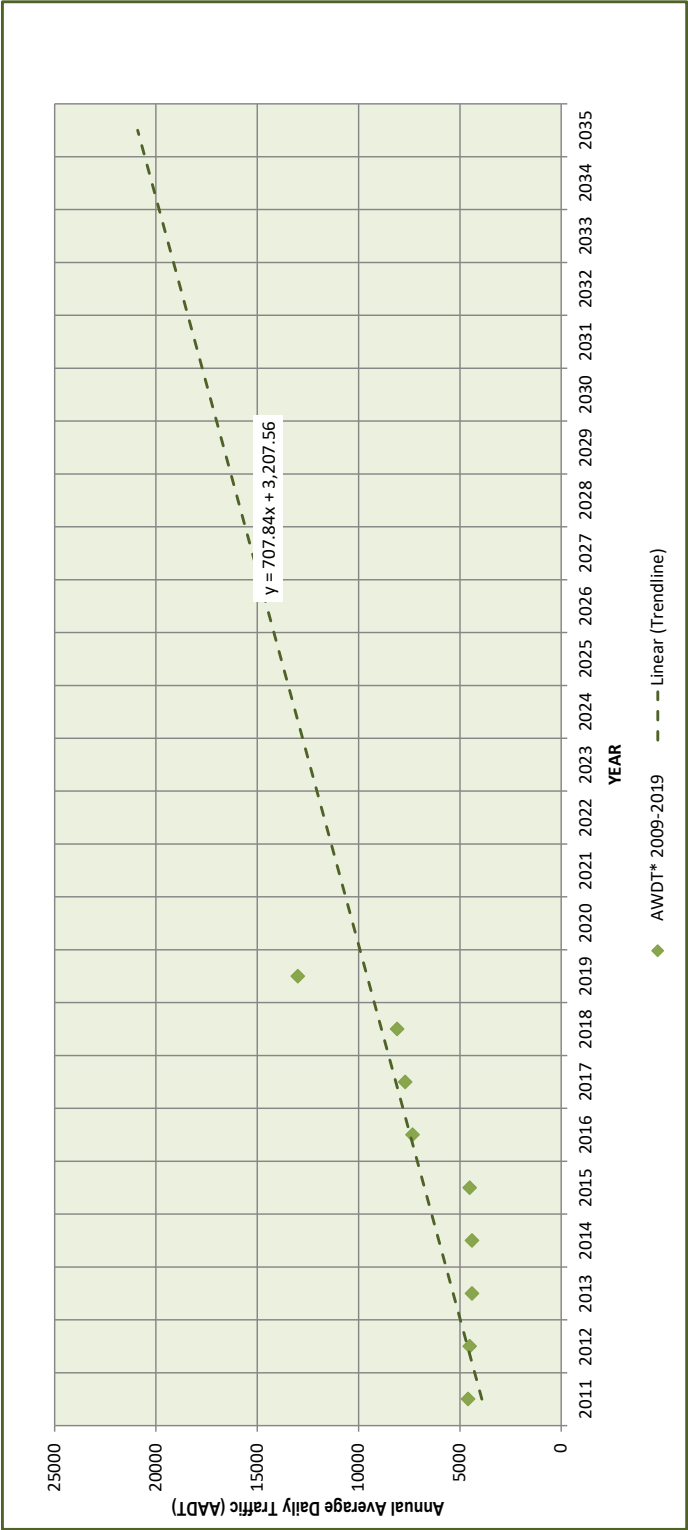
Use 0.5% / year traffic growth rate for Bluewater S $GF_4 = 1.02$ Growth Factor to Year 2025
 $GF_{14} = 1.07$ Growth Factor to Year 2035

Comments:

Mostly built-out; add estimated trips from Westpointe TIS to account for growth.

*Source(s):

2009-2016 = MRCOG Transportation Analysis and Querying Application (TAQA) via www.taqa.mrcog-nm.gov/taqa/
2007-2019 = "MRCOG Traffic Flows for the Greater Albuquerque Area"
(Bluewater St., COGID #24714)



PROJECT: 98th & Bluewater TIS
Background Traffic Projection - I40 EB Off Ramp

YEAR	AADT* 2011- 2020	TRENDLINE
2009		
2010		
2011	1406	1679
2012	1381	1665
2013	1996	1650
2014	2015	1635
2015	2063	1621
2016	1315	1606
2017	1339	1592
2018	1358	1577
2019	1743	1563
2020	1520	1548
2021		1533
2022		1519
2023		1504
2024		1490
2025		1475
2026		1460
2027		1446
2028		1431
2029		1417
2030		1402
2031		1388
2032		1373
2033		1358
2034		1344
2035		1329

$G_1 = 0.87\%$ 2009-2019 AADT compounded annual rate
 $G_2 = -0.90\%$ 2009-2019 Trendline compounded annual rate
 $G_3 = 1.02\%$ 2010-2035 UNM/BBER population projection for Bernalillo County

$GF_4 = 1.04$ Growth Factor to Year 2025
 $GF_{14} = 1.15$ Growth Factor to Year 2035

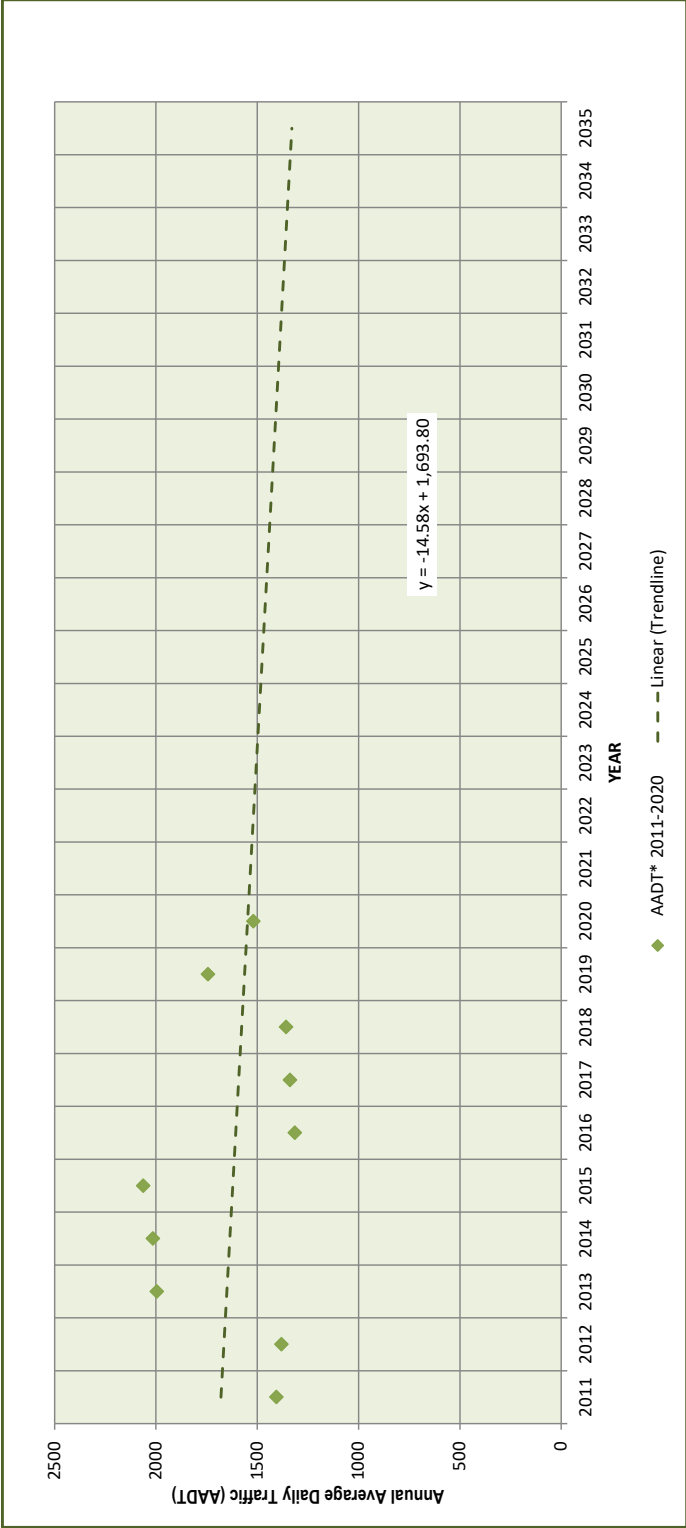
Use 1% / year traffic growth rate for I40 EB Off

Comments:

Growth potential N. of I40, W. of 98th.

*Source:

2011-2020 = NMDOT Traffic Monitoring Program: "AADT and AADT Trucks by Year"
accessed via <https://nmdot.public.ms2soft.com/tcds/tsearch.asp?loc=nmdot>
(LRS ID IX40P153.0A, Location ID #10151)



PROJECT: 98th & Bluewater TIS
Background Traffic Projection - I40 EB1 ON Ramp (S-E Loop)

YEAR	AADT* 2011- 2020	TRENDLINE
2009		
2010		
2011	1277	1462
2012	1255	1536
2013	1865	1611
2014	1883	1685
2015	1928	1759
2016	1712	1834
2017	2030	1908
2018	2087	1982
2019	2069	2057
2020	1859	2131
2021		2206
2022		2280
2023		2354
2024		2429
2025		2503
2026		2577
2027		2652
2028		2726
2029		2800
2030		2875
2031		2949
2032		3024
2033		3098
2034		3172
2035		3247

	582	1785	growth
	64.67	74.37	rate

$G_1 = 4.26\%$ 2009-2019 AADT compounded annual rate
 $G_2 = 4.28\%$ 2009-2019 Trendline compounded annual rate
 $G_3 = 1.02\%$ 2010-2035 UNM/BBER population projection for Bernalillo County

Use 4% / year traffic growth rate for I40 EB1 ON

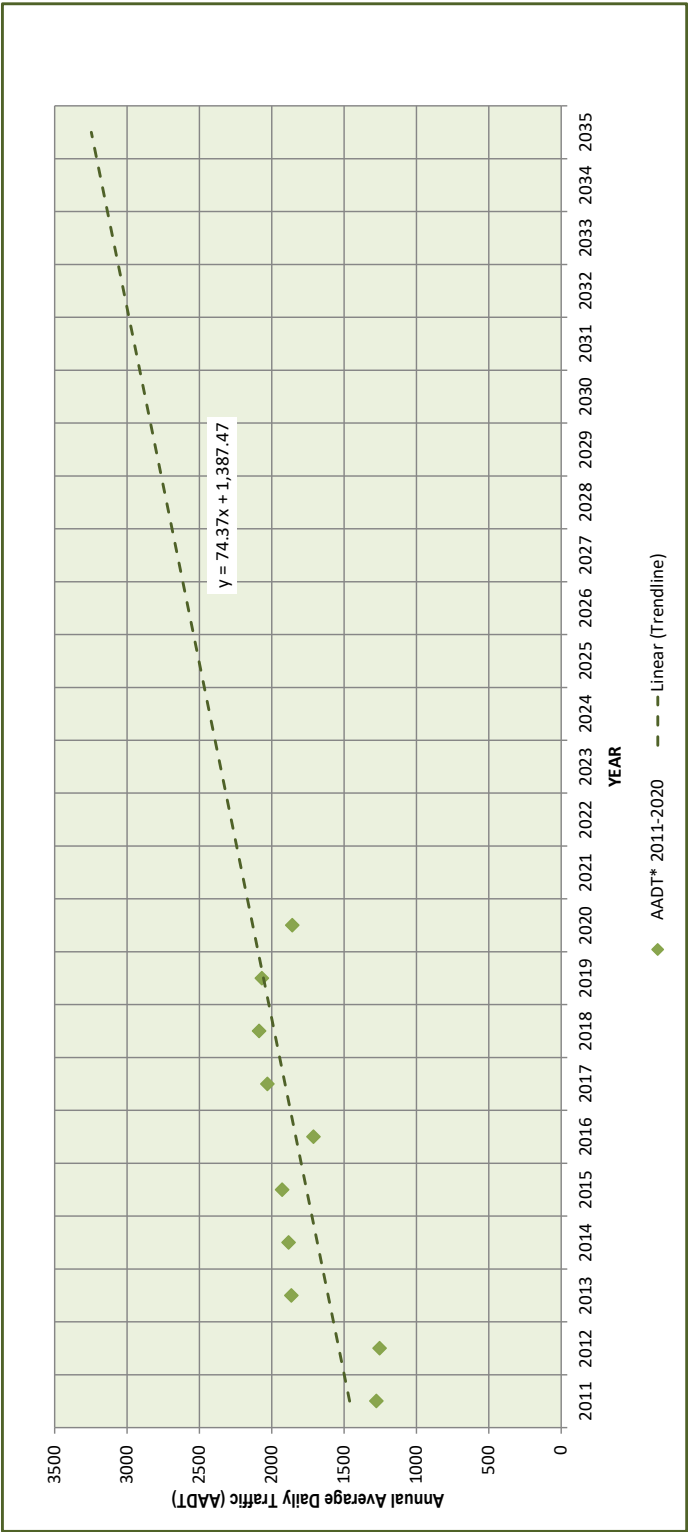
$GF_4 = 1.17$ Growth Factor to Year 2025
 $GF_{14} = 1.73$ Growth Factor to Year 2035

Comments:

High growth + developable land north of I40.

*Source:

2011-2020 = NMDOT Traffic Monitoring Program: "AADT and AADT Trucks by Year"
accessed via <https://nmdot.public.ms2soft.com/tcdfs/tsearch.asp?loc=nmdot>
(LRS ID IX40P153.0G, Location ID #10368)



PROJECT: 98th & Bluewater TIS
Background Traffic Projection - I40 EB2 ON Ramp (N-E)

YEAR	AADT* 2011- 2020	TRENDLINE
2009		
2010		
2011	12896	12481
2012	12669	12605
2013	12472	12729
2014	12593	12852
2015	12892	12976
2016	12825	13100
2017	13056	13223
2018	13239	13347
2019	14816	13471
2020	12920	13594
2021		13718
2022		13842
2023		13965
2024		14089
2025		14212
2026		14336
2027		14460
2028		14583
2029		14707
2030		14831
2031		14954
2032		15078
2033		15202
2034		15325
2035		15449

	24	2968	growth
	2.67	123.65	rate

$G_1 = 0.02\%$ 2009-2019 AADT compounded annual rate
 $G_2 = 0.95\%$ 2009-2019 Trendline compounded annual rate
 $G_3 = 1.02\%$ 2010-2035 UNM/BBER population projection for Bernalillo County

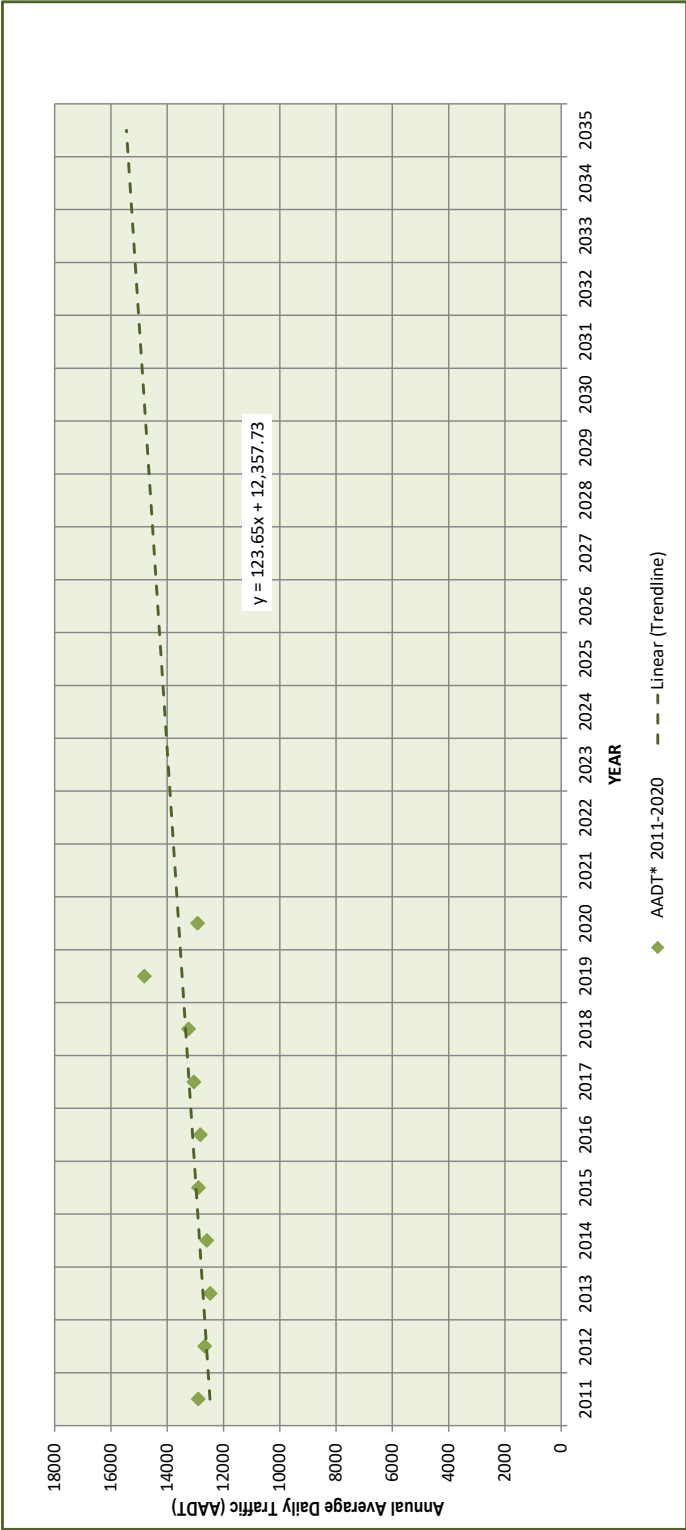
Use 1% / year traffic growth rate for I40 EB2 ON $GF_4 = 1.04$ Growth Factor to Year 2025
 $GF_{14} = 1.15$ Growth Factor to Year 2035

Comments:

Limited developable land S. of Central Ave., but more developable land available W. of 98th St.

*Source:

2011-2020 = NMDOT Traffic Monitoring Program: "AADT and AADT Trucks by Year"
accessed via <https://nmdot.public.ms2soft.com/tcds/tsearch.asp?loc=nmdot>
(LRS ID IX40P153.0H, Location ID #10434)



PROJECT: 98th & Bluewater TIS
Background Traffic Projection - I40 WB2 ON Ramp (N-W + S-W)

YEAR	AADT* 2011- 2020	TRENDLINE
2009		
2010		
2011	1638	1877
2012	1609	1873
2013	2141	1869
2014	2162	1865
2015	2213	1861
2016	1686	1857
2017	1716	1853
2018	1740	1849
2019	1969	1846
2020	1717	1842
2021		1838
2022		1834
2023		1830
2024		1826
2025		1822
2026		1818
2027		1815
2028		1811
2029		1807
2030		1803
2031		1799
2032		1795
2033		1791
2034		1787
2035		1784

$G_1 = 0.52\%$ 2009-2019 AADT compounded annual rate
 $G_2 = -0.21\%$ 2009-2019 Trendline compounded annual rate
 $G_3 = 1.02\%$ 2010-2035 UNM/BBER population projection for Bernalillo County

$G_{F_4} = 1.04$ Growth Factor to Year 2025
 $G_{F_{14}} = 1.15$ Growth Factor to Year 2035

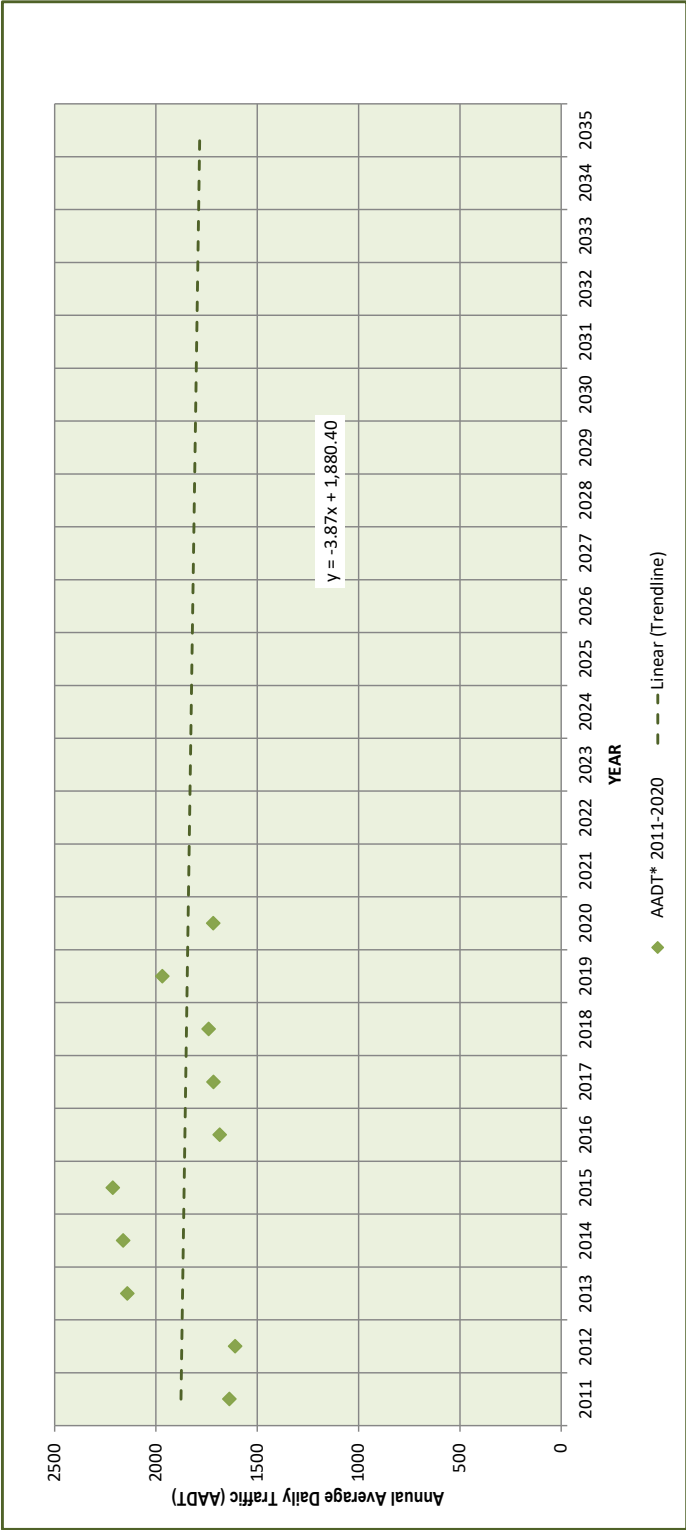
Use 1% / year traffic growth rate for I40 WB ON

Comments:

Developable land available north of I40, new employers at Atrisco Vista.

*Source:

2011-2020 = NMDOT Traffic Monitoring Program: "AADT and AADT Trucks by Year"
accessed via <https://nmdot.public.ms2soft.com/tcdfs/tsearch.asp?loc=nmdot>
(LRS ID IX40P153.0T, Location ID #10817)



PROJECT: 98th & Bluewater TIS
Background Traffic Projection - I40 WB Off Ramp

YEAR	AADT* 2011- 2020	TRENDLINE
2009		
2010		
2011	14438	14150
2012	14184	14398
2013	14798	14646
2014	14942	14894
2015	15297	15142
2016	14842	15389
2017	15109	15637
2018	15321	15885
2019	18015	16133
2020	15709	16381
2021		16629
2022		16877
2023		17125
2024		17373
2025		17621
2026		17869
2027		18117
2028		18365
2029		18613
2030		18861
2031		19109
2032		19357
2033		19605
2034		19853
2035		20101

$G_1 = 0.94\%$ 2009-2019 AADT compounded annual rate
 $G_2 = 1.64\%$ 2009-2019 Trendline compounded annual rate
 $G_3 = 1.02\%$ 2010-2035 UNM/BBER population projection for Bernalillo County

$GF_4 = 1.06$ Growth Factor to Year 2025
 $GF_{14} = 1.23$ Growth Factor to Year 2035

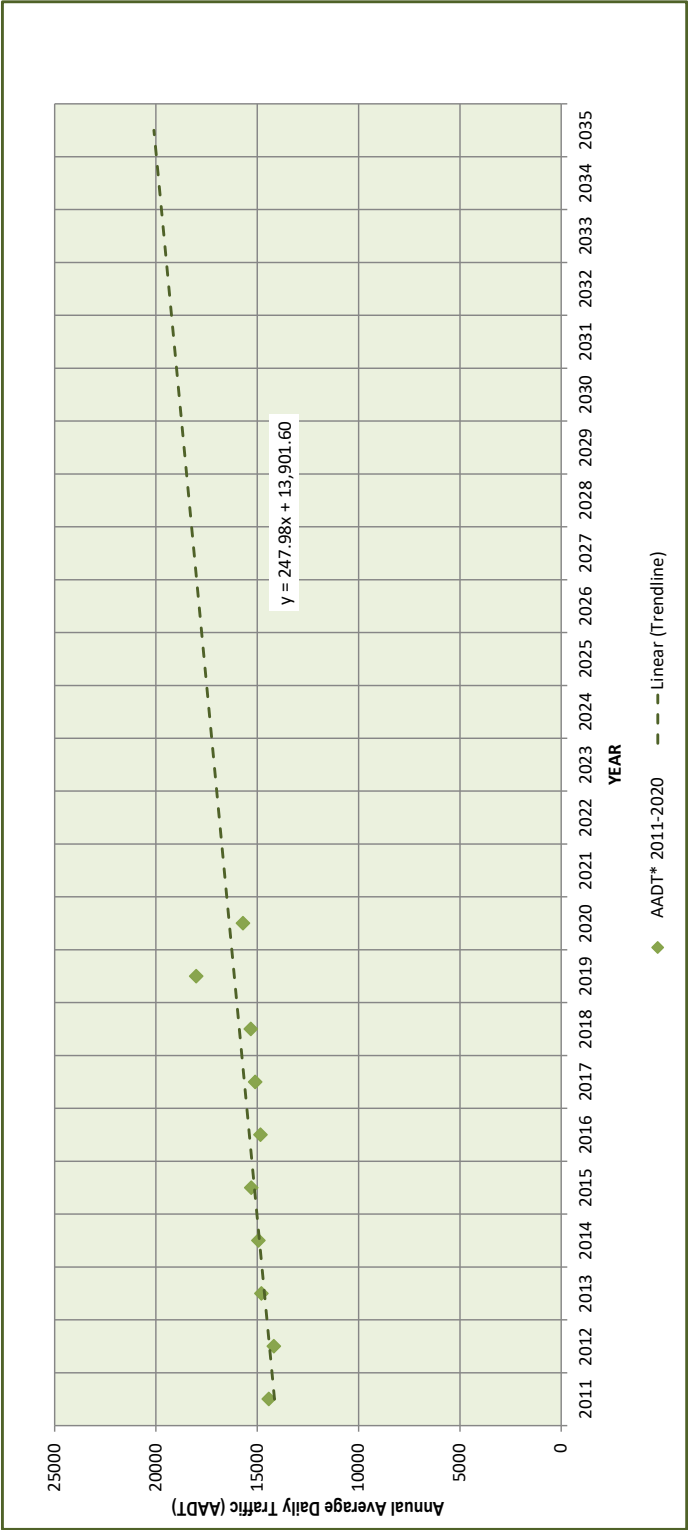
Use 1.5% / year traffic growth rate for I40 WB Off

Comments:

Growth potential N. of I40, W. of 98th.

*Source:

2011-2020 = NMDOT Traffic Monitoring Program: "AADT and AADT Trucks by Year"
accessed via <https://nmdot.public.ms2soft.com/tcdfs/tsearch.asp?loc=nmdot>
(LRS ID IX40P153.0N, Location ID #10592)



Intersection No.: 369

Centrac

1

Intersection Name: CENTRAL - 98TH

Revision Date 3/21/2018

Timing Data

Phase I.D.:	1	2	3	4	5	6	7	8
Phase Dir.:	W-S	EB	S-E	NB	E-N	WB	N-W	SB
Min Grn	3	16	3	16	3	16	3	16
Walk:	0	7	0	7	0	7	0	7
Ped Clr:	0	20	0	23	0	20	0	22
Veh Ext:	1.5	3.0	1.5	2.0	1.5	3.0	1.5	2.0
Veh Ext2:	1.5	3.0	1.5	2.0	1.5	3.0	1.5	2.0
Max 1:	18	28	16	42	16	28	16	42
Max 2:	28	24	16	48	25	24	16	48
Max 3:								
Yellow:	3.5	6.0	3.5	4.5	3.5	6.0	3.5	4.5
Red Clr	1.0	1.0	1.0	1.5	1.0	1.0	1.0	1.5

Recall Data

Locking Memory:							
Vehicle Recall:							
Ped Recall:							
Recall To Max:		X		X		X	X

Flash Mode: ALL RED

Start Up Mode: ALL RED

Time: 8 SEC.

First Phases: 4 & 8

Start In: GREEN

Overlap Phases:

Overlap	Par Ph	Grn	Yel	Red
A				
B				
C				
D				

- NOTES:
1. Timings copied from controller, 12/27/89.
 2. At this time there is no detection.
 3. Controller to P cab and Eagle EPAC 300 Controller, 3/14/89.
 4. Wiring problem with Ped Buttons repaired, 12/28/89.
 5. Added 1 sec. all red for both phases, 12/28/89, lowered phase 4 max green to 24 sec., 12/28/89.
 6. Revised clearance intervals, 12/28/90.
 7. Changed from a 2 phase to 4 phase intersection. Changed flash mode start up to

ALL RED, and start in green, 4/3/98.
8. Phases 3 and 7 were added due to upgrades on 98th from Central to Sage, 9/6/02.
9. Phases 1 and 5 were added in order to make intersection 8 phase, 11/5/02.
10. Timing sheet updated, MAX II time start at 6:30 - 8:30 am Phase 2 & 6 changed to 24 sec. Phases 4 & 8 changed to 42 sec., 11/12/03.
11. TOD Step 1 start at 6:30 am MAX II 2,4,6,8. Step 2 start 8:45 am off Step 3 start at 3:00 pm MAX II 1,2,4,6,8 Step 4 start at 6:30 pm MAX II off 12/9/08.
12. Clearance intervals updated to NMDOT standard by BB, 10/3/13.
13. No longer need step 11. No TOD needed.
14. Timing sheet revised to new version of timing sheet, 8/29/16.
15. New Coordination Patterns implemented 10-2016, Lee Engineering.
16. New Day Plan and MAX2 implemented 12-27-2016, Lee Engineering.
17. Changed start up phases to North and South. 3/21/18 A.F.
18. Found typo. A.F. 9/14/20

ASC3 COORDINATION PLAN DATA

369 - Central Ave & 98th St

COORDINATOR OPTIONS (MM 3-1)

MANUAL PATTERN	AUTO	ECPI COORD	YES
SYSTEM SOURCE	SYS	SYSTEM FORMAT	PTN
SPLITS IN	PERCENT	OFFSET IN	PERCENT
TRANSITION	SMOOTH	MAX SELECT	MAXINH
DWELL/ADD TIME	0	ENABLE MAN SYNC	NO
DLY COORD WK-LZ	NO	FORCE OFF	FLOAT
OFFSET REF	LEAD	CAL USE PED TM	NO
PED RECALL	NO	PED RESERVE	YES
LOCAL ZERO OVRD	NO	FO ADD INI GRN	NO
RE-SYNC COUNT	0	MULTISYNC	NO

COORDINATION PATTERN 21 (MM 3-2)

USE SPLIT PATTERN	21	SPLIT SUM	100%	AM
TS2 (PAT-OFF)	0-1			
CYCLE	130	STD (COS)	111	
OFFSET VAL	30%	39.00		
ACTUATED COORD	YES	TIMING PLAN	0	
ACT WALK REST	NO	SEQUENCE	0	
PHASE RESRVCE	NO	ACTION PLAN	0	
MAX SELECT	MAX2	FORCE OFF	FLOAT	

PHASE	1	2	3	4	5	6	7	8
DIRECTION	W-S	EB	S-E	NB	E-N	WB	N-W	SB
SPLITS	12	31	9	48	17	26	9	48
	15.6	40.3	11.7	62.4	22.1	33.8	11.7	62.4

PHASE	1	2	3	4	5	6	7	8
COORD PHASE				X				X
VEH RECALL								
MAX RECALL		X		X		X		X

COORDINATION PATTERN 23

USE SPLIT PATTERN	23	SPLIT SUM	100%
TS2 (PAT-OFF)	0-3		
CYCLE	110s	STD (COS)	131
OFFSET VAL	22%		
ACTUATED COORD	YES	TIMING PLAN	0
ACT WALK REST	NO	SEQUENCE	0
PHASE RESRVCE	NO	ACTION PLAN	0

PHASE	1	2	3	4	5	6	7	8
DIRECTION	W-S	EB	S-E	NB	E-N	WB	N-W	SB
SPLITS	21	31	12	36	15	37	12	36

PHASE	1	2	3	4	5	6	7	8
COORD PHASE				X				X
VEH RECALL								
MAX RECALL		X		X		X		X

ASC3 COORDINATION PLAN DATA

COORDINATION PATTERN 25

USE SPLIT PATTERN	25	SPLIT SUM	100%	PM
TS2 (PAT-OFF)	0-5			
CYCLE	110	STD (COS)	151	
OFFSET VAL	18%	19.80		
ACTUATED COORD	YES	TIMING PLAN	0	
ACT WALK REST	NO	SEQUENCE	0	
PHASE RESRVCE	NO	ACTION PLAN	0	

PHASE	1	2	3	4	5	6	7	8
DIRECTION	W-S	EB	S-E	NB	E-N	WB	N-W	SB
SPLITS	16	31	12	41	16	31	12	41
	17.6	34.1	13.2	45.1	17.6	34.1	13.2	45.1
PHASE	1	2	3	4	5	6	7	8
COORD PHASE				X				X
VEH RECALL								
MAX RECALL		X		X		X		X

CLOCK / CALENDAR DATA (MM 5-1)

CURRENT DATE	CURRENT DOW	CURRENT TOD
ENA ACTION PLAN	0	
SYNC REF TIME	03:30	SYNC REF REF TIME
TIME FROM GMT	+00	DAY LIGHT SAVE NO
TIME RESET INPUT SET TIME		3:30:00

ACTION PLAN 21 (MM 5-2)

PATTERN	21	SYS OVERRIDE	NO
TIMING PLAN	0	SEQUENCE	0
VEHICLE DETECTOR PLAN	0.00	DET LOG	NONE
FLASH	--	RED REST	NO
VEH DET DIAG PLN	0	PED DET DIAG PLN	0
DIMMING ENABLE	NO		

ACTION PLAN 23

PATTERN	23	SYS OVERRIDE	NO
TIMING PLAN	0	SEQUENCE	0
VEHICLE DETECTOR PLAN	0.00	DET LOG	NONE
FLASH	--	RED REST	NO
VEH DET DIAG PLN	0	PED DET DIAG PLN	0
DIMMING ENABLE	NO		

ACTION PLAN 25

PATTERN	25	SYS OVERRIDE	NO
TIMING PLAN	0	SEQUENCE	0
VEHICLE DETECTOR PLAN	0.00	DET LOG	NONE
FLASH	--	RED REST	NO
VEH DET DIAG PLN	0	PED DET DIAG PLN	0
DIMMING ENABLE	NO		

ASC3 COORDINATION PLAN DATA

ACTION PLAN 100

PATTERN	254	SYS OVERRIDE	NO
TIMING PLAN	0	SEQUENCE	0
VEHICLE DETECTOR PLAN	0.00	DET LOG	NONE
FLASH	--	RED REST	NO
VEH DET DIAG PLN	0	PED DET DIAG PLN	0
DIMMING ENABLE	NO		

DAY PLAN/EVENT 1 (MM 5-3)

EVENT	ACTION PLAN	START TIME
1	23	10:00
2	100	19:00
3	0	00:00

DAY PLAN/EVENT 2

EVENT	ACTION PLAN	START TIME
1	21	6:00
2	23	9:00
3	25	14:30
4	23	19:00
5	100	22:00
6	0	00:00
7	0	00:00

AM

PM

DAY PLAN/EVENT 3

EVENT	ACTION PLAN	START TIME
1	23	8:00
2	100	21:00
3	0	00:00

SCHEDULE NUMBER 1 (MM 5-4)

SCHEDULE NUMBER	1											
DAY PLAN NO	1											
CLEAR ALL FIELDS												
SELECT ALL MONTHS												
DOW DOM												
MONTH	J	F	M	A	M	J	J	A	S	O	N	D
	X	X	X	X	X	X	X	X	X	X	X	X
DAY(DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
	X	.	.	.	.	.	.					
DAY(DOM)	1	2	3	4	5	6	7	8	9	10	11	
	X	X	X	X	X	X	X	X	X	X	X	
	12	13	14	15	16	17	18	19	20	21	22	
	X	X	X	X	X	X	X	X	X	X	X	
	23	24	25	26	27	28	29	30	31			
	X	X	X	X	X	X	X	X	X			

ASC3 COORDINATION PLAN DATA

SCHEDULE NUMBER 2												
SCHEDULE NUMBER	2											
DAY PLAN NO	2		CLEAR ALL FIELDS									
SELECT ALL MONTHS				DOW				DOM				
MONTH	J	F	M	A	M	J	J	A	S	O	N	D
	X	X	X	X	X	X	X	X	X	X	X	X
DAY(DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
	.	X	X	X	X	X	.					
DAY(DOM)	1	2	3	4	5	6	7	8	9	10	11	
	X	X	X	X	X	X	X	X	X	X	X	
	12	13	14	15	16	17	18	19	20	21	22	
	X	X	X	X	X	X	X	X	X	X	X	
	23	24	25	26	27	28	29	30	31			
	X	X	X	X	X	X	X	X	X			

SCHEDULE NUMBER 3												
SCHEDULE NUMBER	3											
DAY PLAN NO	3		CLEAR ALL FIELDS									
SELECT ALL MONTHS				DOW				DOM				
MONTH	J	F	M	A	M	J	J	A	S	O	N	D
	X	X	X	X	X	X	X	X	X	X	X	X
DAY(DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
	.	.	.	.	.	.	X					
DAY(DOM)	1	2	3	4	5	6	7	8	9	10	11	
	X	X	X	X	X	X	X	X	X	X	X	
	12	13	14	15	16	17	18	19	20	21	22	
	X	X	X	X	X	X	X	X	X	X	X	
	23	24	25	26	27	28	29	30	31			
	X	X	X	X	X	X	X	X	X			

NOTES:

- | |
|---|
| 1. Coord sheet created for ASC3 by BB, 11/1/13. |
| 2. Coordination sheet updated to ASC3 form 11/4/2013. |
| 3. New Coordination Patterns implemented 10-2016, Lee Engineering. |
| 4. New Day Plan and Pattern 21 (Max Select - Max2 & Float) implemented 12-27-2016, Lee Engineering. |

Intersection No.: 305

CENTRAC

1

Intersection Name: AVALON - 98TH

Revision Date 11/20/2020

Timing Data

Phase I.D.:	1	2	3	4	5	6	7	8
Phase Dir.:	W-S	EB	S-E	NB	E-N	WB	N-W	SB
Min Grn	3	10	3	20	3	10	3	20
Walk:		7		7		7		7
Ped Clr:		32		25		35		28
Veh Ext:	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Veh Ext2:								
Max 1:	20	30	20	40	20	30	20	40
Max 2:								
Max 3:								
Yellow:	3.0	3.0	3.0	4.5	3.0	3.0	3.0	4.5
Red Clr	0.5	2.0	0.5	1.5	0.5	2.0	0.5	1.5

Recall Data

Locking Memory:							
Vehicle Recall:							
Ped Recall:							
Recall To Max:				X			X

Flash Mode: ALL RED

Start Up Mode: ALL RED

Time: 8 SEC.

First Phases: 4 & 8

Start In: GREEN

Overlap Phases:

NOTES: 1. Timings provided by Lee Engineering following intersection modifications
11/20/2020

ASC3 COORDINATION PLAN DATA

305 - 98th St & Avalon Rd

COORDINATOR OPTIONS (MM 3-1)

MANUAL PATTERN	AUTO	ECPI COORD	YES
SYSTEM SOURCE	SYS	SYSTEM FORMAT	PTN
SPLITS IN	PERCENT	OFFSET IN	PERCENT
TRANSITION	SMOOTH	MAX SELECT	MAXINH
DWELL/ADD TIME	0	ENABLE MAN SYNC	NO
DLY COORD WK-LZ	NO	FORCE OFF	FIXED
OFFSET REF	LEAD	CAL USE PED TM	NO
PED RECALL	NO	PED RESERVE	YES
LOCAL ZERO OVRD	NO	FO ADD INI GRN	NO
RE-SYNC COUNT	0	MULTISYNC	NO

COORDINATION PATTERN 21 (MM 3-2)

USE SPLIT PATTERN	21	SPLIT SUM	100%	AM
TS2 (PAT-OFF)	0-1			
CYCLE	130.00	STD (COS)	111	
OFFSET VAL	75%	98		
ACTUATED COORD	YES	TIMING PLAN	0	
ACT WALK REST	NO	SEQUENCE	5	
PHASE RESRVCE	NO	ACTION PLAN	0	

PHASE	1	2	3	4	5	6	7	8
DIRECTION	W-S	EB	S-E	NB	E-N	WB	N-W	SB
SPLITS	12	34	12	42	12	34	12	42
	15.6	44.2	15.6	54.6	15.6	44.2	15.6	54.6
PHASE	1	2	3	4	5	6	7	8
COORD PHASE				X				X
VEH RECALL								
MAX RECALL				X				X

COORDINATION PATTERN 23

USE SPLIT PATTERN	23	SPLIT SUM	100%
TS2 (PAT-OFF)	0-3		
CYCLE	110s	STD (COS)	131
OFFSET VAL	7%		
ACTUATED COORD	YES	TIMING PLAN	0
ACT WALK REST	NO	SEQUENCE	0
PHASE RESRVCE	NO	ACTION PLAN	0

PHASE	1	2	3	4	5	6	7	8
DIRECTION	W-S	EB	S-E	NB	E-N	WB	N-W	SB
SPLITS	12	40	14	34	12	40	12	36
PHASE	1	2	3	4	5	6	7	8
COORD PHASE				X				X
VEH RECALL								
MAX RECALL				X				X

ASC3 COORDINATION PLAN DATA

COORDINATION PATTERN 25

USE SPLIT PATTERN	25	SPLIT SUM	100%	PM
TS2 (PAT-OFF)	0-5			
CYCLE	110.00	STD (COS)	151	
OFFSET VAL	0%	0		
ACTUATED COORD	YES	TIMING PLAN	0	
ACT WALK REST	NO	SEQUENCE	0	
PHASE RESRVCE	NO	ACTION PLAN	0	

PHASE	1	2	3	4	5	6	7	8
DIRECTION	W-S	EB	S-E	NB	E-N	WB	N-W	SB
SPLITS	11	39	14	36	10	40	10	40
	12.1	42.9	15.4	39.6	11	44	11	44

PHASE	1	2	3	4	5	6	7	8
COORD PHASE				X				X
VEH RECALL								
MAX RECALL				X				X

CLOCK / CALENDAR DATA (MM 5-1)

CURRENT DATE	CURRENT DOW	CURRENT TOD
ENA ACTION PLAN	0	
SYNC REF TIME	03:30	SYNC REF REF TIME
TIME FROM GMT	+00	DAY LIGHT SAVE NO
TIME RESET INPUT SET TIME		3:30:00

ACTION PLAN 21 (MM 5-2)

PATTERN	21	SYS OVERRIDE	NO
TIMING PLAN	0	SEQUENCE	0
VEHICLE DETECTOR PLAN	0.00	DET LOG	NONE
FLASH	--	RED REST	NO
VEH DET DIAG PLN	0	PED DET DIAG PLN	0
DIMMING ENABLE	NO		

ACTION PLAN 23

PATTERN	23	SYS OVERRIDE	NO
TIMING PLAN	0	SEQUENCE	0
VEHICLE DETECTOR PLAN	0.00	DET LOG	NONE
FLASH	--	RED REST	NO
VEH DET DIAG PLN	0	PED DET DIAG PLN	0
DIMMING ENABLE	NO		

ACTION PLAN 25

PATTERN	25	SYS OVERRIDE	NO
TIMING PLAN	0	SEQUENCE	0
VEHICLE DETECTOR PLAN	0.00	DET LOG	NONE
FLASH	--	RED REST	NO
VEH DET DIAG PLN	0	PED DET DIAG PLN	0
DIMMING ENABLE	NO		

ASC3 COORDINATION PLAN DATA

ACTION PLAN 100

PATTERN	254	SYS OVERRIDE	NO
TIMING PLAN	0	SEQUENCE	0
VEHICLE DETECTOR PLAN	0.00	DET LOG	NONE
FLASH	--	RED REST	NO
VEH DET DIAG PLN	0	PED DET DIAG PLN	0
DIMMING ENABLE	NO		

DAY PLAN/EVENT 1 (MM 5-3)

EVENT	ACTION PLAN	START TIME
1	23	10:00
2	100	19:00
3	0	00:00

DAY PLAN/EVENT 2

EVENT	ACTION PLAN	START TIME
1	21	6:00
2	23	9:00
3	25	14:30
4	23	19:00
5	100	22:00
6	0	00:00
7	0	00:00

AM

PM

DAY PLAN/EVENT 3

EVENT	ACTION PLAN	START TIME
1	23	8:00
2	100	21:00
3	0	00:00

SCHEDULE NUMBER 1 (MM 5-4)

SCHEDULE NUMBER	1											
DAY PLAN NO	1	CLEAR ALL FIELDS										
SELECT ALL MONTHS												
DOW								DOM				
MONTH	J	F	M	A	M	J	J	A	S	O	N	D
	X	X	X	X	X	X	X	X	X	X	X	X
DAY(DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
	X	.	.	.	.	.	.					
DAY(DOM)	1	2	3	4	5	6	7	8	9	10	11	
	X	X	X	X	X	X	X	X	X	X	X	
	12	13	14	15	16	17	18	19	20	21	22	
	X	X	X	X	X	X	X	X	X	X	X	
	23	24	25	26	27	28	29	30	31			
	X	X	X	X	X	X	X	X	X			

ASC3 COORDINATION PLAN DATA

SCHEDULE NUMBER 2												
SCHEDULE NUMBER	2											
DAY PLAN NO	2		CLEAR ALL FIELDS									
SELECT ALL MONTHS				DOW				DOM				
MONTH	J	F	M	A	M	J	J	A	S	O	N	D
	X	X	X	X	X	X	X	X	X	X	X	X
DAY(DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
	.	X	X	X	X	X	.					
DAY(DOM)	1	2	3	4	5	6	7	8	9	10	11	
	X	X	X	X	X	X	X	X	X	X	X	
	12	13	14	15	16	17	18	19	20	21	22	
	X	X	X	X	X	X	X	X	X	X	X	
	23	24	25	26	27	28	29	30	31			
	X	X	X	X	X	X	X	X	X			

SCHEDULE NUMBER 3												
SCHEDULE NUMBER	3											
DAY PLAN NO	3		CLEAR ALL FIELDS									
SELECT ALL MONTHS				DOW				DOM				
MONTH	J	F	M	A	M	J	J	A	S	O	N	D
	X	X	X	X	X	X	X	X	X	X	X	X
DAY(DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
	.	.	.	.	.	.	X					
DAY(DOM)	1	2	3	4	5	6	7	8	9	10	11	
	X	X	X	X	X	X	X	X	X	X	X	
	12	13	14	15	16	17	18	19	20	21	22	
	X	X	X	X	X	X	X	X	X	X	X	
	23	24	25	26	27	28	29	30	31			
	X	X	X	X	X	X	X	X	X			

NOTES:

1. Coord sheet created for ASC3 by BB, 11/1/13.
2. Coordination sheet updated to ASC3 form 11/4/2013.
3. New Coordination Patterns implemented 10-2016, Lee Engineering.
4. New Day Plan implemented 12-27-2016, Lee Engineering.
5. Signal re-phased & East leg constructed July 2020
6. New coordination timings implemented 7/31/2020 by Lee Engineering

Intersection No.: 367

System: Centrac

Address: 1

Intersection Name: I-40 & 98TH

Revision Date 12/23/2013

Timing Data

Phase I.D.:	1	2	3	4	5	6	7	8
Phase Dir.:	N-W	SB		WB		NB		
Min Grn	3	16		8		16		
Walk:	0	7		7		7		
Ped Clr:	0	6		26		8		
Veh Ext:	3.0	3.0		3.0		3.0		
Veh Ext2:								
Max 1:	16	22		32		22		
Max 2:	16	22		48		22		
Max 3:								
Yellow:	4.5	4.5		4.5		4.5		
Red Clr	2.0	1.0		1.5		1.0		

Recall Data

Locking Memory:			X				
Vehicle Recall:							
Ped Recall:							
Recall To Max:		X			X		

Flash Mode: ALL RED

Start Up Mode: ALL RED

Time: 8 SEC.

First Phases: 2 & 6

Start In: GREEN

Overlap Phases: NONE

Overlap	Par Ph	Grn	Yel	Red
A				
B				
C				
D				

NOTES:

1. Intersection to be turned on, 10/31/05. Max 2 - 15:00 to 18:30 M-F.
2. Clearance intervals updated to NMDOT standard by BB, 12/23/13.
3. Max 2 enable Phase 4 @ 1500 to 1830, 2/10/14.
4. Added phase 6 for NB, removed overlap A.
5. New Coordination Patterns implemented 10-2016, Lee Engineering.

ASC3 COORDINATION PLAN DATA

367 - 98th St & I40 WB Ramp

COORDINATOR OPTIONS (MM 3-1)

MANUAL PATTERN	AUTO	ECPI COORD	YES
SYSTEM SOURCE	SYS	SYSTEM FORMAT	PTN
SPLITS IN	PERCENT	OFFSET IN	PERCENT
TRANSITION	SMOOTH	MAX SELECT	MAXINH
DWELL/ADD TIME	0	ENABLE MAN SYNC	NO
DLY COORD WK-LZ	NO	FORCE OFF	FIXED
OFFSET REF	LEAD	CAL USE PED TM	NO
PED RECALL	NO	PED RESERVE	YES
LOCAL ZERO OVRD	NO	FO ADD INI GRN	NO
RE-SYNC COUNT	0	MULTISYNC	NO

COORDINATION PATTERN 21 (MM 3-2)

USE SPLIT PATTERN	21	SPLIT SUM	100%	AM
TS2 (PAT-OFF)	0-1			
CYCLE	130.00	STD (COS)	111	
OFFSET VAL	99%	128.7		
ACTUATED COORD	YES	TIMING PLAN	0	
ACT WALK REST	NO	SEQUENCE	0	
PHASE RESRVCE	NO	ACTION PLAN	0	

PHASE	1	2	3	4	5	6	7	8
DIRECTION	N-W	SB	E-N	WB	S-E	NB	W-S	EB
SPLITS	11	48	0	41	0	59	0	0
	14.3	62.4	0	53.3	0	76.7	0	0

PHASE	1	2	3	4	5	6	7	8
COORD PHASE				X				
VEH RECALL								
MAX RECALL		X		X		X		

COORDINATION PATTERN 23

USE SPLIT PATTERN	23	SPLIT SUM	100%
TS2 (PAT-OFF)	0-3		
CYCLE	110s	STD (COS)	131
OFFSET VAL	50%		
ACTUATED COORD	YES	TIMING PLAN	0
ACT WALK REST	NO	SEQUENCE	0
PHASE RESRVCE	NO	ACTION PLAN	0

PHASE	1	2	3	4	5	6	7	8
DIRECTION	N-W	SB	E-N	WB	S-E	NB	W-S	EB
SPLITS	17	28	0	55	0	45	0	0

PHASE	1	2	3	4	5	6	7	8
COORD PHASE				X				
VEH RECALL								
MAX RECALL		X		X		X		

ASC3 COORDINATION PLAN DATA

COORDINATION PATTERN 25

USE SPLIT PATTERN	25	SPLIT SUM	100%	PM
TS2 (PAT-OFF)	0-5			
CYCLE	110.00	STD (COS)	151	
OFFSET VAL	26%	28.6		
ACTUATED COORD	YES	TIMING PLAN	0	
ACT WALK REST	NO	SEQUENCE	0	
PHASE RESRVCE	NO	ACTION PLAN	0	

PHASE	1	2	3	4	5	6	7	8
DIRECTION	N-W	SB	E-N	WB	S-E	NB	W-S	EB
SPLITS	13	18	0	69	0	31	0	0

14.3 19.8 0 75.9 0 34.1 0 0

PHASE	1	2	3	4	5	6	7	8
COORD PHASE				X				
VEH RECALL								
MAX RECALL		X		X		X		

CLOCK / CALENDAR DATA (MM 5-1)

CURRENT DATE	CURRENT DOW		CURRENT TOD
ENA ACTION PLAN	0		
SYNC REF TIME	03:30	SYNC REF	REF TIME
TIME FROM GMT	+00	DAY LIGHT SAVE	NO
TIME RESET INPUT SET TIME		3:30:00	

ACTION PLAN 21 (MM 5-2)

PATTERN	21	SYS OVERRIDE	NO
TIMING PLAN	0	SEQUENCE	0
VEHICLE DETECTOR PLAN	0.00	DET LOG	NONE
FLASH	--	RED REST	NO
VEH DET DIAG PLN	0	PED DET DIAG PLN	0
DIMMING ENABLE	NO		

ACTION PLAN 23

PATTERN	23	SYS OVERRIDE	NO
TIMING PLAN	0	SEQUENCE	0
VEHICLE DETECTOR PLAN	0.00	DET LOG	NONE
FLASH	--	RED REST	NO
VEH DET DIAG PLN	0	PED DET DIAG PLN	0
DIMMING ENABLE	NO		

ACTION PLAN 25

PATTERN	25	SYS OVERRIDE	NO
TIMING PLAN	0	SEQUENCE	0
VEHICLE DETECTOR PLAN	0.00	DET LOG	NONE
FLASH	--	RED REST	NO
VEH DET DIAG PLN	0	PED DET DIAG PLN	0
DIMMING ENABLE	NO		

ASC3 COORDINATION PLAN DATA

ACTION PLAN 100

PATTERN	254	SYS OVERRIDE	NO
TIMING PLAN	0	SEQUENCE	0
VEHICLE DETECTOR PLAN	0.00	DET LOG	NONE
FLASH	--	RED REST	NO
VEH DET DIAG PLN	0	PED DET DIAG PLN	0
DIMMING ENABLE	NO		

DAY PLAN/EVENT 1 (MM 5-3)

EVENT	ACTION PLAN	START TIME
1	23	10:00
2	100	19:00
3	0	00:00

DAY PLAN/EVENT 2

EVENT	ACTION PLAN	START TIME
1	21	6:00
2	23	9:00
3	25	14:30
4	23	19:00
5	100	22:00
6	0	00:00
7	0	00:00

AM

PM

DAY PLAN/EVENT 3

EVENT	ACTION PLAN	START TIME
1	23	8:00
2	100	21:00
3	0	00:00

SCHEDULE NUMBER 1 (MM 5-4)

SCHEDULE NUMBER	1											
DAY PLAN NO	1 CLEAR ALL FIELDS											
SELECT ALL MONTHS												
DOW DOM												
MONTH	J	F	M	A	M	J	J	A	S	O	N	D
	X	X	X	X	X	X	X	X	X	X	X	X
DAY(DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
	X	.	.	.	.	.	.					
DAY(DOM)	1	2	3	4	5	6	7	8	9	10	11	
	X	X	X	X	X	X	X	X	X	X	X	
	12	13	14	15	16	17	18	19	20	21	22	
	X	X	X	X	X	X	X	X	X	X	X	
	23	24	25	26	27	28	29	30	31			
	X	X	X	X	X	X	X	X	X			

ASC3 COORDINATION PLAN DATA

SCHEDULE NUMBER 2												
SCHEDULE NUMBER	2											
DAY PLAN NO	2 CLEAR ALL FIELDS											
SELECT ALL MONTHS				DOW				DOM				
MONTH	J	F	M	A	M	J	J	A	S	O	N	D
	X	X	X	X	X	X	X	X	X	X	X	X
DAY(DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
	.	X	X	X	X	X	.					
DAY(DOM)	1	2	3	4	5	6	7	8	9	10	11	
	X	X	X	X	X	X	X	X	X	X	X	
	12	13	14	15	16	17	18	19	20	21	22	
	X	X	X	X	X	X	X	X	X	X	X	
	23	24	25	26	27	28	29	30	31			
	X	X	X	X	X	X	X	X	X			

SCHEDULE NUMBER 3												
SCHEDULE NUMBER	3											
DAY PLAN NO	3 CLEAR ALL FIELDS											
SELECT ALL MONTHS				DOW				DOM				
MONTH	J	F	M	A	M	J	J	A	S	O	N	D
	X	X	X	X	X	X	X	X	X	X	X	X
DAY(DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
	.	.	.	.	.	.	X					
DAY(DOM)	1	2	3	4	5	6	7	8	9	10	11	
	X	X	X	X	X	X	X	X	X	X	X	
	12	13	14	15	16	17	18	19	20	21	22	
	X	X	X	X	X	X	X	X	X	X	X	
	23	24	25	26	27	28	29	30	31			
	X	X	X	X	X	X	X	X	X			

NOTES:

1. Coord sheet created for ASC3 by BB, 11/1/13.
2. Coordination sheet updated to ASC3 form 11/4/2013.
3. New Coordination Patterns implemented 10-2016, Lee Engineering. Phase 4 coordinated.
4. New Day Plan implemented 12-27-2016, Lee Engineering.