

March 15, 2017

Mr. Michael Surguine Sanctuary on Camelback Mountain Resort & Spa 5700 East McDonald Drive Paradise Valley, Arizona 85253

# *RE:* The Views Ballroom Expansion and Interstitial Bungalows – Partial Response to Statement of Direction from Town Council

Dear Mr. Surguine:

The letter is in response to items discussed by Paradise Valley's Town Council in study sessions on February 9 and 23, 2017 and subsequently included in a Statement of Direction (SOD), a draft of which was reviewed by the Council at the former session, and approved at the latter session. The subject of the discussion was, of course, recent improvements proposed for the Sanctuary on Camelback Mountain Resort & Spa.

# BACKGROUND

This is not CivTech's first involvement with improvements proposed for The Sanctuary. CivTech completed the *Sanctuary Resort Parking Analysis* in February 2012, the *Jade Bar at Sanctuary Camelback Mountain Parking Analysis* on February 25, 2013 and a formal amendment to the Jade Bar analysis in was completed at the end of August 2014. Amendment No. 2, completed in January 2017 and another component of the current submittal package, provides additional details regarding the original study and Amendment No. 1.

## **PROPOSED IMPROVEMENTS**

The proposed improvements now before Council include a 2,189-square foot (SF) expansion of The Views Ballroom and up to 45 new rental units, known as "interstitial bungalows," within the existing Casitas area, an area of the resort in which all of the units are rental units. The architect indicated to CivTech that, per the International Building Code (an industry reference), the ballroom expansion would accommodate 146 additional guests at 15 SF per person.

## ISSUES

The SOD provides a list of five issues to be discussed. As many as three may be linked to traffic engineering and parking: the other two are in regard to the locations of utilities and architectural renderings. The primary one that will be addressed below is that "Traffic and circulation shall be studied." In addition, in order to make certain that all of the councilmembers traffic-related concerns are addressed herein, CivTech reviewed the Town's archived video footage of the two sessions. Before addressing the primary issue, in order to demonstrate that CivTech did consider all of the potential issues, CivTech will briefly address the other two, which are only remotely related to traffic engineering and on-site parking.

<u>Item 1</u>. "The applicant must identify the location of on-site retention basins and how this may affect parking and circulation." The video footage showed that the councilmember was concerned

how additional run off from any new impervious surfaces (parking areas, etc.) would affect cart paths, how the patterns of run off might be affected, etc.

*Response*: As traffic engineers, CivTech's specialty is not expert in the area of drainage, a specific discipline within the broader category of civil engineering. CivTech presumes that a drainage engineer will provide the necessary calculations required by the Council. CivTech does suggest another, quick way to look at the issue. The existing lot coverage documented in the SOD is 19.1 percent. It will increase to 20.5 percent, an increase of 1.4 percentage points. Since 1.4 percent is 7.3 percent of the base lot coverage of 19.1 percent, it can be estimated that runoff across the property would average 7.3 percent (or  $\frac{1}{14^{th}}$ ) higher wherever there is runoff. If the runoff is 1 inch, it would increase to 1.07 inches, not an appreciably noticeable difference to motorized vehicles or pedestrians.

Item 2. "The hours of operation of the snack bar and pool area shall be reviewed."

*Response*: The snack bar and pool are non-trip and parking-space generating amenities for residents and guests. Therefore, neither affects the previous parking analysis.

<u>Other Issues</u>. In the videos of the study sessions, CivTech heard councilmembers specifically express concerns about these other following issues, which will be addressed in the discussion that follows on traffic, parking, and circulation:

- How the improvements will affect "parking and circulation."
- The improvements' impacts on the sole site access at McDonald Drive (which is moreaccurately described as the Town's intersection of Superstition Lane, which is a public street south to Starlight Way, and McDonald Drive) the impact of additional site traffic along McDonald Drive.
- The staff parking seems to one councilmember to be always full now. Will the new interstitial bungalows require more staff and, if so, where will those new staff members park?
- How do ride-sourcing services such as Uber, Lyft, and Sidecar (the three largest of such services) affect trip generation?

# TRAFFIC, PARKING, AND CIRCULATION

In order to respond to several of the issues raised above, a first step would be to estimate the number of trips generated by the improvements. Before doing so, it should be noted that the trip generation data used by CivTech were published in 2012. These are published in the 9<sup>th</sup> Edition of the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*. This was before the cell phone-facilitated phenomenon known as "ride-sourcing services" operated by "transportation network companies" (TNCs) had manifested itself to the degree it has since in American society.

Uber, founded in 2009, is the only one of the largest three companies operating such services (the others are Sidecar, founded in 2011, and Lyft, founded in 2012) to have been around long enough to have had any possible effect on the traffic data recorded for and submitted to the ITE for inclusion in the 2012 manual that CivTech uses. And, CivTech would point out, this effect would be minimal since new data is simply aggregated with long-standing data recorded before such services, some of which could have been recorded decades before. Therefore, before the trips generated are calculated, CivTech will begin by addressing the council-identified issue of what has been dubbed the "Uber effect."



# **Uber Effect**

To understand the Uber effect, CivTech first conducted some on-line research to determine if there have been any studies that have measured the Uber effect. (The details of the technology, how it works, etc., are not important here.) Per a 2015 Masters' Thesis, demand for ride-sourcing services "has spread rapidly and become more important in urban transport [because] Companies such as Uber and Lyft may provide better service with less waiting time and higher vehicle occupancy when compared to traditional transportation services such as private auto, public transit and taxis." (Chen, Zhen, *Impact of Ride-Sourcing Services on Travel Habits and Transportation Planning*, University of Pittsburgh, 2015.) In fact, another degree candidate, in her thesis, "predict[ed] that at current conditions, TNCs such as Uber and Lyft will overtake taxi services. Thus, the taxi industry must focus on increasing TNC regulation, creating innovative technology, and modifying its service to appeal to consumers." (Wang, Alice, *The Economic Impact of Transportation Network Companies on the Taxi Industry*, Scripps College, April 2015.)

But has the so-called Uber effect been measured yet? The authors of *Factors Affecting Passenger Travel Demand In The United States: A White Paper from the National Center for Sustainable Transportation*, a study published in draft form in November 2015, indicate on page 6 that "new *shared mobility* options, such as...on-demand ride services (e.g. Uber) may also impact the current trends...However, new mobility options are a recent phenomenon: most of their impacts on travel demand and mode choice are expected to happen in future years" [Circella, et al., 2015. Emphasis in original.]

Although each of these studies cites several other studies, the focus of such studies tend away from asking the specific questions to which the councilmembers would like answers. Rather than focusing on how trips to a resort might be affected by use of these services, the rsearch topics are much larger: will total vehicle miles traveled (VMT) each day in a particular urban area be reduced by the use of such services, will they affect the use of public transit, etc.

The consensus in early 2017 seems to be that ride-sourcing services have not yet reached peak usage and that they could eventually replace taxi services if taxi service providers do not become more competitive, convenient, etc. And, even as ride-sourcing increases the effect could be that it simply replaces taxi rides among a certain, generally-younger tech-savvy segment of the population, growing in use as that population grows.

For The Sanctuary, as long as the percentage of out-of-area guests not renting vehicles remains essentially the same as it is now, there would be little or no net effect on trip generation since these ride-sourcing services such as Uber, Lyft, and Sidecar operate similarly to taxi cabs with each ride to or from the site requiring two trips (one in, one out) and no permanent parking spaces required. Vehicles rented by guests arriving at an airport result in only half as many trips while requiring a parking space: one trip in upon arriving, a parking space while the vehicles is on-site, and one trip out when leaving the site (for a meal, sightseeing, or after checkout).

## Parking

As noted, CivTech prepared Amendment No. 2 to address the increase in the number of parking spaces warranted by the 45 new guest units. CivTech reviewed its other previous studies and did not find the expansion of The Views to be accounted for in any of those previous documents. Nor was CivTech directed to revise/update Amendment No. 2 to include the extra ballroom floor area, only to prepare a report to address the concerns of the Town Council expressed in the February



study sessions and conveyed via the SOD. Given that, CivTech elected to address the issue as briefly as possible here.

**Attachment 1** is an updated version of Attachment 2 to Amendment No. 2. The conference floor area has been increased by 2,189 from 6,211 SF to 8,400 SF. The net effect of this expansion is to warrant 39 more parking spaces overall (from 113 to 152) or 31 additional shared spaces during the busiest time of the weekend evening (from 8:00-9:00 PM, when eighty percent of them would be needed) to a total of 371 shared parking spaces required as compared to the prior total of 340. Amendment No. 2 indicates that there would be a total of 391 parking spaces available on-site after all of the improvements are made with the interstitial bungalows. Therefore, the peak shared-parking usage (371 spaces) from 8:00-9:00 PM on a weekend evening remains below the number of spaces to be provided on-site (391 spaces) and no additional parking is warranted to accommodate The Views ballroom expansion.

<u>Employee Parking</u>. The comment regarding employee parking originated with a councilmember who lives in the area and frequently walks along McDonald Drive past the site. The councilmember noted that the lot often appears to be full and wondered out loud if it could accommodate additional employee vehicles. CivTech concurs that an additional 45 rooms would likely require the hiring of additional staff to clean the rooms and serve in various capacities the additional guests. CivTech is not equipped to address this issue and must defer to the property owner/manager in regard to the availability of sufficient employee parking.

# Traffic

With respect to the traffic effects of the proposed improvements, the ITE *Trip Generation Manual* provides sufficient data to estimate the number of trips per day and per peak hour generated by the 45 new guest units. However, the increase in floor area of the ballroom is not specifically addressed, as ballrooms are ancillary to the hotel. Hence, the trip generation table is a hybrid that calculates trips generated by the rooms and estimates trips for the additional ballroom based on the additional parking spaces required to accommodate the additional 146 guests, which, as indicated above, is 39° spaces. It is possible for two (or more, potentially) separate events, events that require the entire ballroom, to be scheduled in that ballroom in a day, so CivTech estimated trips for two events, an all-day corporate-type event and an evening affair. In this way, the PM peak hour could have trips both leaving arriving and arriving, the most conservative of all potential trips generation scenarios for the ballroom. In addition, there is no weekday trip generation rate for resort hotel rooms, so an estimated rate was used to calculate the average daily total (ADT) only. **Table 1** is the detailed trip generation for the proposed improvements.

<sup>&</sup>lt;sup>\*</sup> The total of 39 assumes ten percent of those attending events in the ballroom/conference area are resort guests. While the number of spaces required for just the expansion area calculates to more than 43, when aggregated with the existing conference area, the actual increase is just 43, ninety percent of which is 39 spaces.



# Table 1 – Trip Generation

	ITE							AM Distri	bution	PM Dist	ribution
Land Use	LUC	ITE	E Land l	Jse Name		Quantity U	nits	In	Out	In	Out
Interstitial Bungalows	330		Resort	Hotel		34 R	ooms	72%	28%	43%	57%
The Views Ballroom Expansion	n/a		n/	а		2.189† K	SF*	100%	0%	50%	50%
		ADT			AM Pe	ak Hour			PM Pea	ak Hour	
Land Use		Avg. Rate	Total	Avg. Rate	In	Out	Total	Avg. Rate	In	Out	Total
Interstitial Bungalows		\$.00 <sup>‡</sup>	360	0.52+	17	7	24	0.42	8	11	19
The Views Ballroom Expansion			78		39	0	39		39	39	78
Totals			438		56	7	63		47	50	97
* KSF = 1,000 Squ <sup>†</sup> Floor area showr <sup>‡</sup> Daily rate not put	iare Feet is gross olished; v	floor area o alue is estim	f ballroc nated	m expansio	on only.						

*Note: Average	ge rates were calculated	by generating trips usi	ng equations for and	dividing by total number of	of dwelling units. (See below.)

	CALCULATIONS (Equations	shown only where available)	
Land Use [Units]	Daily	AM Peak Hour	PM Peak Hour
Resort Hotel	Not available.	T <sub>AM</sub> = 45 x 0.35 + 7.42 = 24	Not available.

A review of the trip generation detailed in **Table 1** reveals that the proposed 45 interstitial bungalows and the 2,189-SF expansion of The Views ballroom are expected to generate fewer than 450 trips per day with 63 occurring during the AM peak hour (56 in/7 out) and 97 occurring during the PM peak hour (47 in/50 out).

Impact of Site Traffic on Superstition Lane/McDonald Drive Intersection and on McDonald Drive. Since The Sanctuary has but one site access, councilmembers expressed concern about the impact of these additional trips on the intersection of the site driveway with McDonald Drive. The related impact of the additional trips on McDonald drive in general were also questioned. First the issue of the classification of McDonald Drive needs to be addressed.

Classification of McDonald Drive. During a council study sessions, one of the councilmembers was heard to remark that McDonald Drive is a "residential street." Unfortunately, that is not the case in terms of how it functions. In chapter 4 of the ITE book, Transportation and Land Development, the authors describe how "Local streets serve to provide land access...Movement on local streets is incidental and involves traveling to or from a collector facility. Therefore, the trip length on the local street is short." A collector facility "provides both land access and movement within residential...areas. Collectors penetrate, but should not have continuity through, residential areas." The ITE's Guidelines for Residential Subdivision Street Design, adds that "Collector streets have the primary purpose of intercepting traffic from intersecting local streets and carrying this movement to the nearest major streets. A secondary function is service to abutting land use." [All emphasis in the original.] The Guidelines also add for local streets that "morning peak hour traffic [is] about 7 percent to 8 percent and afternoon peak hour traffic about 10 percent of ADT [Average Daily Traffic]." The Maricopa County Department of Transportation MCDOT Roadway Design Manual indicates that Major Collector roadways (collector roadways longer than one-half mile) can be expected to carry up to 8,500 vehicles per day (vpd) with just a single through lane in each direction. (It should be noted that the presence of a continuous twoway left turn lane and/or raised medians, both of which can be found along McDonald Drive, tends to allow some additional capacity as left-turning vehicles have a refuge in which they can safely wait to turn, thus not delaying vehicles traveling through and increasing the capacity in this manner.) Therefore, because McDonald Drive is longer than one-half mile and it carries traffic from the several residential streets intersecting it to major streets on either end (Scottsdale Road, Tatum Boulevard), McDonald Drive functions not only as a collector road, it should be considered



to be a Major Collector roadway. The next section addresses existing traffic volumes on McDonald Drive.

*Existing McDonald Drive Traffic Volumes.* As noted above, as a Major Collector street, McDonald Drive could be expected to carry traffic volumes of 8,500 vpd. The Town recorded peak hour turning movements during three peak periods (AM, midday, and PM) at several intersections in early 2014 and made those available on-line. One of those intersections was Tatum Boulevard at McDonald Drive. In 2015, in conjunction with its traffic study for the new Ritz-Carlton resort ow under construction at Mockingbird Land and McDonald Drive, CivTech recorded AM and PM peak hour turning movement counts on McDonald Drive at Scottsdale Road and at Mockingbird Lane. The total eastbound and westbound movements approaching and/or departing these intersections are summarized in **Table 2**. Daily volumes can be estimated from the AM and Pm peak hour counts by dividing the hourly segment volume by the percentage-of-daily factors cited above, 8 percent for AM and 10 percent for PM. Copies of the traffic counts can be found as **Attachment 2**.

Intersection McDonald Drive at:	Peak Period (Factor)	Volume East of Intersection EB/WB/Total (vph)	Volume West of Intersection EB/WB/Total (vph)	Estimated 2-Way ADT (vpd)
Scottsdale Road	AM (8%)		379 / 445 / 824	10,300
	PM (10%)		315 / 330 / 645	6,450
Mockingbird Lane	AM (8%)		271 / 338 / 609	7,615
	AM (8%)	296 / 319 / 615		7,690
	PM (10%)		261 / 333 / 594	5,940
	PM (10%)	256 / 329 / 585		5,850
Tatum Boulevard	AM (8%)	254 / 229 / 483		6,040
	PM (10%)	266 / 263 / 529		5,290

 Table 2 – Traffic Volumes

Since the Town did not report any roadway segment volumes, that is, volumes recorded over the course of a day or more, CivTech added a column to **Table 2**. The column is an estimate of daily volumes (ADTs) based on segment volumes during the peak hours and are calculated by dividing the hourly volume by either eight percent (AM) or ten percent (PM). A review of these results tends to show that the weekday volumes along McDonald Drive may be between 5,300 vpd and 7,700 vpd between Tatum Boulevard and Mockingbird Lane. (Please note that the substantially higher volumes immediately west of Scottsdale Road can be ascribed to the high-trip generating retail and office uses on both western corners of the intersection. To provide the capacity necessary for these trips, the City of Scottsdale has added several more lanes on the eastbound McDonald Drive approach to Scottsdale Road.) If the existing volumes on McDonald Drive are between 6,000 and 8,000 vpd as estimated, there is sufficient capacity to accommodate the additional weekday trips anticipated from the proposed expansion of The Sanctuary.

Impact on Superstition Lane/McDonald Drive Intersection. CivTech was not able to record turning movement volumes at intersection of Superstition Lane at McDonald Drive in the time allotted to prepare this study. In order to keep the approval process moving forward, for purposes of this study CivTech used eastbound and westbound traffic volumes on McDonald Drive from **Table 2** to simulate McDonald Drive approach volumes, volumes that include existing site driveway traffic as well as trips generated by some of The Sanctuary's neighbors to the east and the Nauni Valley



neighborhood on the north side of McDonald Drive. (Nauni Valley Drive, a private road that serves the neighborhood, intersects McDonald Drive across from Superstition Lane.) The volumes were "balanced," that is, adjusted to show the number of vehicles entering intersection as the number leaving the intersection. The balancing added trips to several of the through movements; none of the recorded through movements was reduced, resulting in a conservative analysis.

CivTech estimated the number of site trips generated by The Sanctuary's existing facilities and added to these estimates the trips anticipated during peak hours. For the ballroom, for example, since all of the new total of 152 parking spaces (113 existing, all of which would be in the existing traffic volumes on McDonald Drive, plus 39 new) would be needed just before an all-day event that begins at 9 AM, 152 trips would be considered as entering from 8-9 AM, just as



Superstition Ln/Nauni Vly Dr @ McDonald Dr

# Figure 1 – Estimated AM (PM) Turning Movements

those same 152 trips would be considered to be exiting from 5-6 PM after the event. Trips for the new total of 174 guest units were estimated using the same trip generation rates or equations as found in **Table 1**.

Table 3 – Intersection Level of
Service Criteria

Level of	Control Dela	ay (sec/veh)
Service	Signalized	Unsignalized
А	≤ 10	≤ 10
В	> 10-20	> 10-15
С	> 20-35	> 15-25
D	> 35-55	> 25-35
Е	> 55-80	> 35-50
F*	> 80	> 50

Source: Exhibit 18-4 and Exhibit 19-1, Highway Capacity Manual 2010 \* In addition, any movement that operates with a volume-to-capacity ratio greater than 1

(V:C>1), is considered to be operating at LOS *F*, no matter the control delay.

Figure 1 shows CivTech's estimated future AM and PM peak hour turning movement volumes at the intersection of Superstition Lane/Nauni Valley Drive and McDonald Drive. CivTech conducted a (very) preliminary intersection level-of-service analysis for the intersection. The concept of level of service (LOS) uses qualitative measures that characterize operational conditions within the traffic stream. The analysis considers factors that include speed, travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. At intersections, levels of service are defined within ranges of "average control delay per vehicle," that is, the number of seconds a vehicle can expect to wait due to the presence of a traffic control device. For reference, Table 3 lists the level of service criteria for signalized and unsignalized intersections: LOS A represents the

best operating conditions and LOS F the worst. Please note that levels of service are not calculated for uncontrolled and/or unopposed movements, such as through movements and right turns. Levels of service are calculated for left turn movements because they are opposed and a driver could be delayed by opposing through traffic.

**Table 4** summarizes the preliminary intersection level-of-service analysis for the intersection using the volumes in **Figure 1**. **Attachment 3** contains both printouts from the Synchro traffic analysis software, which uses the analysis methodology outlined in the latest (2010) edition of the *Highway Capacity Manual* for a two-way stop-controlled (TWSC) intersection. A review of the



results summarized in **Table 3**, reveals that, with conservative estimated turning movement volumes, the intersection stopcontrolled northbound Superstition Lane and southbound Nauni Valley Drive approaches to McDonald Drive should operate at acceptable levels of service of not less than LOS C with an average control delay of not more than 17.1 seconds per vehicle.

Table 4 – TWSC LOS Analysis Summary
Superstition Lane & McDonald Drive

	AM LOS	PM LOS
Movement	(delay)	(delay)
NB Shared (Stop)	C (15.1 sec)	C (17.1 sec)
SB Shared (Stop)	B (14.9 sec)	B (14.0 sec)
EB Left	A (7.8 sec)	A (8.0 sec)
WB Left	A (8.4 sec)	A (7.9 sec)

# Circulation

The final issue to be addressed is on-site circulation. CivTech does not anticipate any on-site circulation issues with the addition of perhaps 100 total trips in either peak hour for several reasons. These trips represent, on average, fewer than one new trip per minute in either direction of the internal roadway network, trips that are further diluted as they travel via various routes to different destinations on-site. Also, CivTech previously documented that, if necessary, The Sanctuary would employ valets to park vehicles. The use of valets not only allows a greater density of parking, it provides a greater consistency of travel throughout the site as the valets are generally more familiar with the site than infrequent guests and with each other's driving habits. The few neighbors that live along Starlight Way that may use Superstition Lane, if they are aware of large events at The Sanctuary, have alternate routes to McDonald Drive (Dragoon Lane and Cameldale Way) and, therefore, should not be inconvenienced by traffic for such an event.

# **CONCLUSIONS AND RECOMMENDATIONS**

An addition of 45 interstitial bungalows and a 2,189-SF expansion of The Views ballroom are being proposed for The Sanctuary on Camelback Mountain Resort & Spa. This study has been prepared to address issues raised by the Town Council regarding traffic, parking, and circulation not address in previous studies or amendments to those studies.

From the foregoing, the following can be concluded:

- For The Sanctuary, as long as the percentage of out-of-area guests not renting vehicles remains essentially the same as it is now, there would be little or no net effect on trip generation since ride-sourcing services such as Uber, Lyft, and Sidecar operate similarly to taxi cabs.
- The peak shared-parking usage (371 spaces) from 8:00-9:00 PM on a weekend evening remains below the number of spaces to be provided on-site (391 spaces) and no additional parking is warranted to accommodate The Views ballroom expansion.
- The proposed 45 interstitial bungalows and the 2,189-SF expansion of The Views ballroom are expected to generate fewer than 450 trips per day with 63 occurring during the AM peak hour (56 in/7 out) and 97 occurring during the PM peak hour (47 in/50 out).
- If the existing volumes on McDonald Drive are between 5,300 and 7,700 vpd as estimated, there is sufficient capacity to accommodate the additional weekday trips anticipated from the proposed expansion of The Sanctuary.
- With conservative estimated turning movement volumes, the intersection stop-controlled northbound Superstition Lane and southbound Nauni Valley Drive approaches to McDonald Drive should operate at acceptable levels of service of not less than LOS C with an average control delay of not more than 17.1 seconds per vehicle..



• CivTech does not anticipate any on-site circulation issues with the addition of perhaps 100 total trips in either peak hour for several reasons documented in the study.

Thank you. If you have any questions or comments, please contact me at (480) 659-4250.

Sincerely,

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Joseph F. Spadafino P.E., PTOE, PTP Project Manager/Senior Traffic Engineer

Attachments (3)

X\17-0430 Sanctuary Issues Letter\Submittals\1st Submittal\Sanctuary Issues Letter - 1st Submittal DRAFT (V1\_0).docx



Ultimate (Spa Expansion with Bungalows)

WEEKEND

# APPENDIX D PEAK USE SHARED PARKING CALCULATIONS WEEKEND

							Sanc	tuary							
Land Use	<b>Resort Gue</b>	est Rooms	Resort Er	nployees	Resta	urant	Confe	rence	S	<b>Ja</b>	Ret	tail	Reside	ential	
Gross Size	174125	Rooms	3,529	SF	6,349	SF	8,4006,411	SF	10,247	SF	640	SF	0	Units	
Percent Adjustment	No	ne	Ň	ne	Ñ	ne	No	ne	No	ne	No	ne	Nor	ne	
Net Size	174	Rooms	3,529	SF	6,349	SF	8,400	SF	10,247	SF	640	SF	48	Units	SHARED
Parking Rate	1.2 /	/Room	-	/300 SF	-	/50 SF	-	/50 SF	-	/300 SF	-	/300 SF	1.2 /	/Unit	PARKING
Req-d Spaces	21	10	1:	5	4	5	11	52	1	6	2		0		DEMAND
					/ 7E0/ NI	+00.00	N %06 /m	on-guest	N 7003 /···	100 m 00	N 2007 M	100110 00			
Adjustments	ÖZ	au	0Z	au	N %C/ /M	Ion guest	(pailroom) c guest (	k 90% Non-	W 00%	1san6-uor	N %09 /M	on-guest		ne	
Time of Day	% OF DE A K	# 0F ser	% OF DE A K	# 0F 2D2	% OF DE A K	# 0F	% OF	# 0F s D C	% OF DEAK	# 0F ser	% OF DE AK	# 0F spr	90 %	# 0F spr	TOTAL
6:00 AM	100%	210 210	60%	<b>ა</b> ი	20%	о 0	0%	0	5%	2	0%	0	0%	0	229 229
7:00 AM	100%	210	70%	11	20%	6	%0	0	10%	2	3%	~	%0	0	233
8:00 AM	100%	210	100%	15	20%	6	50%	76	40%	8	10%	1	%0	0	319
9:00 AM	20%	147	100%	15	20%	<b>б</b>	100%	152	55%	11	30%	-	%0	0	335
10:00 AM	65%	137	100%	15	20%	6	100%	152	75%	15	45%	-	%0	0	329
11:00 AM	65%	137	100%	15	30%	14	100%	152	%06	18	20%	2	%0	0	338
12:00 PM	65%	137	100%	15	30%	14	100%	152	100%	19	85%	2	%0	0	339
1:00 PM	65%	137	100%	15	45%	21	100%	152	100%	19	95%	2	%0	0	346
2:00 PM	65%	137	100%	15	45%	21	100%	152	100%	19	100%	2	%0	0	346
3:00 PM	65%	137	100%	15	45%	21	100%	152	100%	19	100%	2	%0	0	346
4:00 PM	20%	147	100%	15	45%	21	100%	152	85%	17	%06	2	%0	0	354
5:00 PM	75%	158	100%	15	60%	27	80%	122	65%	13	75%	2	%0	0	337
6:00 PM	80%	168	85%	13	90%	41	80%	122	35%	7	65%	2	%0	0	353
7:00 PM	%06	189	80%	12	95%	43	80%	122	15%	3	10%	1	%0	0	370
8:00 PM	%06	189	75%	12	100%	45	80%	122	10%	2	10%	1	%0	0	371
9:00 PM	%06	189	70%	11	100%	45	80%	122	5%	1	10%	1	%0	0	369
10:00 PM	%06	189	60%	<b>б</b>	40%	18	80%	122	%0	0	%0	0	%0	0	338
11:00 PM	100%	210	50%	8	20%	6	80%	122	%0	0	0%	0	%0	0	349
MIDNIGHT	100%	210	50%	8	0%	0	80%	122	%0	0	0%	0	%0	0	340
	Number of F	Parking Spac	ces With Sh	ared Parking	a for Sanctu	ary									371
	Number of N	Non-Shared	Parking Spa	aces Require	id by City C	ode for San	ctuary								443

## Intersection Turning Movement Prepared by: Field Data Services of Arizona, Inc. 520.316.6745



## Intersection Turning Movement Prepared by: Field Data Services of Arizona, Inc. 520.316.6745







#### Intersection Statistics

Per	Peak Hour	Pk Hr Vol	Peak Intvl	Pk Intv Vol
AM	7:15 AM	2827	7:30 AM	752
MID	11:15 AM	1572	12:45 PM	434
PM	5:00 PM	2832	5:00 PM	736

#### Comments

#### **Approach Statistics**

Per	Peak Hour	Pk Hr Vol						
AM	7:15 AM	1510	7:15 AM	229	7:15 AM	1088		
MID	12:00 PM	652	11:15 AM	212	11:15 AM	742		
PM	4:30 PM	901	4:15 PM	272	5:00 PM	1683		

#### Approach & Departure Volumes (No Peds)

Per	Approach	Depart	Approach	Depart	Approach	Depart	Approach	Depart
AM	2658	1705	400	451	1946	2848	0	0
MID	1275	1348	385	351	1453	1414	0	0
PM	1695	2812	530	496	3023	1940	0	0

TWSC AM 3: Superstition Lane/Nauni Valley Drive & McDonald Drive HCM 2010 TWSC

emerat         EN         WB         WB         WB         WB         WB         WB         WB         SH         SH <t< th=""><th>ovement</th><th>œ</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<>	ovement	œ											
Technolizations         Technoliz		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Michain Press, #Mr         1         261         30         111         259         1         30         3         0 </td <td>ne Configurations</td> <td>F</td> <td><del>،</del></td> <td>:</td> <td>F</td> <td>\$</td> <td></td> <td></td> <td>¢</td> <td></td> <td></td> <td>¢</td> <td></td>	ne Configurations	F	<del>،</del>	:	F	\$			¢			¢	
Michain         1         2         0 </td <td>attic vol, vervn</td> <td></td> <td>701</td> <td>8</td> <td>= ;</td> <td>697</td> <td></td> <td>5 0</td> <td></td> <td>0 9</td> <td>γ, c</td> <td>0 0</td> <td>., c</td>	attic vol, vervn		701	8	= ;	697		5 0		0 9	γ, c	0 0	., c
eq:control free free free free free free free fre	iture vol, ven/n	- <	07	Ŗ	=	607	- <	5 0		0	γ c	0 0	Υ
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IIIIIIIIII Feus, #/III							0	0 10	0	0 10		0
Underfactor         T         Nume         Num         Nume         Nume	Jn Control	Free	Free	Pree Mana	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
rigge length         5/5         ·	Channelized	' F	1	None		1	None		1	None	•	1	None
International condition         Minor         Min	brage Lengin	G/ G	• <		G/ G	• <			· <	•			1
Rue.Fine         2         0         2         1         0         11         3         0         3         0         3         0         1         1         0         1         1         3         0         3         0         0         11         3         0         3         0         3         0         3         0         3         0         3         0         3         0         3         0         3         0         3         0         3         0         3         0         3         0         3         0         3         0         3         0         3         0         1         1         1         1         1         1         1         1 <th1< td=""><td>n in iwearan Storage, #</td><td></td><td>0</td><td></td><td></td><td></td><td></td><td></td><td>0 0</td><td></td><td></td><td>0</td><td>'</td></th1<>	n in iwearan Storage, #		0						0 0			0	'
Merican         92 <t< td=""><td>ade, %</td><td>•</td><td>0</td><td>•</td><td></td><td>0</td><td>•</td><td>1</td><td>0</td><td>•</td><td>•</td><td>-</td><td>1</td></t<>	ade, %	•	0	•		0	•	1	0	•	•	-	1
Millon         Major         2 <th2< td=""><td>ak Hour Factor</td><td>92</td><td>92</td><td>92</td><td>92</td><td>92</td><td>92</td><td>92</td><td>92</td><td>92</td><td>92</td><td>92</td><td>92</td></th2<>	ak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
mittow         1         24         96         121         242         1         10         0         11         3         0         3         3         3         1         3         0         3	avy Vehicles, %	2 ,	2	2	2	2	5	2 7	2 0	2 7	2	2 0	2
	mt Flow	-	284	86	121	202	-	10	0	E	τ.	0	
	ajor/Minor	Major1			Major2			Minor1			Minor2		
Stage 1         · </td <td>inflicting Flow All</td> <td>293</td> <td>0</td> <td>0</td> <td>382</td> <td>0</td> <td>0</td> <td>871</td> <td>870</td> <td>333</td> <td>874</td> <td>918</td> <td>293</td>	inflicting Flow All	293	0	0	382	0	0	871	870	333	874	918	293
Stage 2         . </td <td>Stage 1</td> <td>1</td> <td>1</td> <td></td> <td></td> <td>1</td> <td></td> <td>335</td> <td>335</td> <td></td> <td>534</td> <td>534</td> <td>Ì</td>	Stage 1	1	1			1		335	335		534	534	Ì
Rical Holowy         4.12         -         4.12         -         -         1.12         6.52         6.22         7.12         6.52         6.22         7.12         6.52         6.22         7.12         6.52         6.22         7.12         6.52         6.22         7.12         6.52         5.52         -         6.12         5.52         -         6.12         5.52         -         6.12         5.52         -         6.12         5.52         -         6.12         5.52         -         6.12         5.52         -         6.12         5.52         -         6.12         5.52         -         6.13         5.52         -         6.13         5.52         -         6.13         5.52         -         6.13         5.52         -         6.13         5.52         -         6.13         5.52         -         6.13         5.52         -         6.13         5.52         -         6.13         5.52         -         6.13         5.52         -         6.13         5.52         -         6.13         5.52         -         6.13         5.52         -         6.13         5.52         -         6.13         5.52         -         6.14         1.41<	Stage 2	•	'			'		536	535		340	384	ľ
	tical Hdwy	4.12	1		4.12	'	•	7.12	6.52	6.22	7.12	6.52	6.22
Ical Hdwy Sig 2         .	itical Hdwy Stg 1	•	•					6.12	5.52		6.12	5.52	
New up Holwy         2.218         -         2.218         -         3.318	itical Hdwy Stg 2	1	1	•	'	1	•	6.12	5.52	•	6.12	5.52	'
Cape Il Maneuver         1269         ·         1176         ·         ·         211         290         709         270         273         746           Slage 1         ·	llow-up Hdwy	2.218	1		2.218	1	•	3.518	4.018	3.318	3.518	4.018	3.318
Stage 1       -       -       -       -       -       -       539       543       -       550       524       -       550       524       -       550       514       -       -       500       501       -       570       511       -       -       530       524       245       511       -       -       541       -       245       511       -       -       545       611       -       -       545       611       -       -       545       611       -       -       545       611       -       -       545       611       -       -       545       611       -       -       545       611       -       -       545       611       -       -       545       611       -       -       545       611       -       -       545       611       -       -       545       541       -       -       545       541       -       -       545       541       -       -       545       541       -       -       545       541       -       545       541       -       545       541       -       545       541       -       5410 <td>t Cap-1 Maneuver</td> <td>1269</td> <td>1</td> <td></td> <td>1176</td> <td>1</td> <td></td> <td>271</td> <td>290</td> <td>709</td> <td>270</td> <td>272</td> <td>746</td>	t Cap-1 Maneuver	1269	1		1176	1		271	290	709	270	272	746
Stage 2       -       -       -       -       -       549       541       -       615       611       -         V cap 1 Manever       1269       -       -       1176       -       -       248       260       709       245       244       746         V cap 2 Manever       1269       -       -       1176       -       -       248       260       709       245       244       746         V cap 2 Manever       -       -       -       -       678       642       -       550       470       -       553       470       -       553       470       -       553       470       -       553       470       -       553       470       -       553       470       -       553       470       -       553       470       -       553       470       -       553       470       -       553       470       -       553       470       -       553       470       -       564       611       -       -       564       611       -       -       564       611       -       -       564       611       -       564       611       -	Stage 1	•	1	•		1		679	643	•	530	524	1
Montuol (26)         Montuol (26)<	Stage Z	1				1		67G	47C		C/Q	0	
V Cap2 Maneurer         120         -	ILUUT DIUCKEU, 70	1740	1	•	72.11	1		010	070	UUL	JAE	111	745
V.ap.z. unitervert     -<	v Cap-1 Maneuver	1209	1		0/11	1		242	007	40/	242	244	/40
Slage 1     - <t< td=""><td>v Cap-z Maneuver</td><td></td><td>1</td><td>•</td><td></td><td>1</td><td>•</td><td>047</td><td>007</td><td>•</td><td>C 42</td><td>702 4</td><td></td></t<>	v Cap-z Maneuver		1	•		1	•	047	007	•	C 42	702 4	
Dadge 2         - </td <td>C togo J</td> <td>•</td> <td>•</td> <td></td> <td></td> <td></td> <td></td> <td>0/0</td> <td>740</td> <td></td> <td>000</td> <td>410</td> <td></td>	C togo J	•	•					0/0	740		000	410	
Arcach         EB         WB         NB         SB           M Control Delay.s         0         2.5         15.1         14.9           M LOS         0         2.5         15.1         14.9           M LOS         5         5         15.1         14.9           M LOS         6         2.5         15.1         14.9           M LOS         7         2.5         17.1         14.9           M Los         2         2.6         17.1         14.9           Pacity (vehh)         3.77         12.69         - 117.6         - 3.69           M Cane VIC Ratio         0.055         0.01         - 0.103         - 0.018           M Cane VIC Ratio         0.055         0.01         - 0.103         - 14.9           M Lane VIC Ratio         0.055         0.01         - 0.13         - 0.14.9           M Lane LOS         5         - 0.3         - 0.14.9         - 0.14.9	Stage 2	'	•	•			•	4/7	4 /0	•	004	0	
M control belay s         L0         M0         151         149           M Control belay s         0         25         151         149           M LOS         C         25         151         149           M LOS         C         25         151         149           M LOS         C         25         5         5         5           M Los         Size         26         8         8         6         8           M Los         337         1269         - 1176         - 369         8         8         8         8         8         9	nroach	g			1//R			AIN			св		
M control Lelay, s 0 2.5 15.1 14.9 M LOS C B M LOS C C B or LaneMajor NWmi NBLn1 EBL EBT EBR WBL WBR SBLn1 pacity (veh/h) 377 1269 - 1176 - 369 M Lane V/C Ratio 0.055 0.001 - 0.103 - 0.018 M Lane V/C Ratio 0.055 0.001 - 0.103 - 14.9 M Lane LOS C 1 - A - B M Park Skile Q(veh) 0.2 0 - 0.3 - 0.1											00		
nor Lane-Major Nwmi         NBL-n1         EBL         EBT         WBL         WBR SBL-1           padity (veh/h)         377         1269         -         -         176         -         -         369           M Lane VC Ratio         0.055         0.001         -         -         0.103         -         -         0.18           M Lane VC Ratio         0.055         0.001         -         -         0.103         -         -         14.9           M Lane LOS         15.1         7.8         -         8.4         -         -         14.9           M Lane LOS         0.2         0         -         0.3         -         0.1	M Control Delay, s M LOS	0			2.5			19.1			14.9 B		
padity (veh/h) 377 1269 - 1176 - 369 M Lane V/C Ratio 0.055 0.001 - 0.103 - 0.018 M Lane L/C Ratio 0.055 0.001 - 0.103 - 14.9 M Lane L/C R - R - R - 14.9 M Postin % sitie Q(veh) 0.2 0 - 0.3 - 0.1	oor Lane/Major Mvmt	NBLn1	EBL	EBT E	BR WBL	WBT	WBR SBI	Ln1					
M Lane VC Ratio 0.055 0.001 0.103 0.018 M Lane LOS 15.1 7.8 8.4 14.9 M Lane LOS 0.01 0.3 0.1 M 95th %tile Q(veh) 0.2 0 0.3 0.1	pacity (veh/h)	377	1269		- 1176	1		369					
M Control Delay (s) 15:1 7.8 · · 8.4 · · 14.9 M Lane LOS C A · · A · B M 95th %ile Q(veh) 0.2 0 · · 0.3 · · 0.1	M Lane V/C Ratio	0.055	0.001		- 0.103	1	- 0.0	018					
M Lane LOS C A - A - B M 95th %ile Q(veh) 0.2 0 - 0.3 - 0.1	M Control Delay (s)	15.1	7.8		- 8.4	1	,	4.9					
M 95th %tile Q(veh) 0.2 0 0.3 0.1	M Lane LOS	U	A		- A	'		в					
	:M 95th %tile Q(veh)	0.2	0		- 0.3	1		0.1					

Superstition Lane at McDonald D	/e HCM 2010 T
TWSC PM	3: Superstition Lane/Nauni Valley Drive & McDonald Dri

	ection	
	Inters	

	ne Configurations         n         h	The Configurations         The Co	me Configurations <b>1</b> Iture Vol, vehhn 3 Iture Vol, vehhn 3 onflicting Peds, #hr 0 gn Control Free Channelized 57 orage Length 575 and 8 an Meutr Factor 92 and 92 and 100 200 and Four Factor 92 and Flow 3 and Flow 3 and Flow 6 and 100 and	253 253 253 0 6 Free -	13	<u>ې</u> ۲	<b>4</b>	ç		<b>\$</b> °	101	-	¢,	
E: Vol, Vehith         3         255         13         18         317         3         88         0         106         1         0         1           Re: Vol, Vehith         3         253         13         13         3         88         0         106         1         0         1 <td>Iffer Vol. Vol. Vol.         <math>3</math> <math>233</math> <math>13</math> <math>13</math> <math>3</math> <math>33</math> <math>33</math>&lt;</td> <td>Iffer Vol vieth         3         2.53         1.3         1.6         1.7         3         0.0         &lt;</td> <td>iffic Vol, veh/h 3 Allicing Peds, #/hr 0 Allicing Peds, #/hr 0 pr Control Free channelized 5/15 Allicing Peds 7 Allicing Peds 7 Ade, % 2 avy Vehicles, % 2 Ant Flow 3 Allicing Major 1</td> <td>253 253 253 0 6 Free</td> <td>13</td> <td>18</td> <td>717</td> <td>ç</td> <td></td> <td>0</td> <td>101</td> <td></td> <td>•</td> <td></td>	Iffer Vol. Vol. Vol. $3$ $233$ $13$ $13$ $3$ $33$ <	Iffer Vol vieth         3         2.53         1.3         1.6         1.7         3         0.0         <	iffic Vol, veh/h 3 Allicing Peds, #/hr 0 Allicing Peds, #/hr 0 pr Control Free channelized 5/15 Allicing Peds 7 Allicing Peds 7 Ade, % 2 avy Vehicles, % 2 Ant Flow 3 Allicing Major 1	253 253 253 0 6 Free	13	18	717	ç		0	101		•	
	ue Volvieth         3         23         10         10		ure Vol, veh/h 3 filcling Peds, #/hr 0 nilcling Peds, #/hr 0 Channelized 575 rage Length 575 rade % kHow 2 avy Vehicles, % 2 mt Flow 33 mt Flow 6000	253 0 Free -		2	10	r	88	5	901		Ð	_
Item Preds         Fine         Free	Internet level         File         Free	Intering Feats         Intering Feats         Inter         Inte	Milcting Peds, #/hr 0 T Control Channelized age Length 575 age Length 575 in Median Storage, # - de, % - de, % - any Vehicles, % 2 mt Flow Major	Free	13	18	317	ę	88	0	106	-	0	-
Control         Free         Free         Free         Free         Free         Free         Stop	Control         Free	Control         Free	Control Free Control Free 	Free	0	0	0	0	0	0	0	0	0	0
$\begin black bla$	Annelland         None $\cdot$ None         None         None         None         None         None         None         None         None	Channelized         · <t< td=""><td></td><td>· · c</td><td>Free</td><td>Free</td><td>Free</td><td>Free</td><td>Stop</td><td>Stop</td><td>Stop</td><td>Stop</td><td>Stop</td><td>Stop</td></t<>		· · c	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
age Length         575         ·         575         ·         575         ·	Machan Storage, #         575         ·         575         ·	age Length         575         · <t< td=""><td>rage Length 575 10 Median Sorage, #</td><td>· c</td><td>None</td><td></td><td>1</td><td>None</td><td>1</td><td>1</td><td>None</td><td>•</td><td>1</td><td>None</td></t<>	rage Length 575 10 Median Sorage, #	· c	None		1	None	1	1	None	•	1	None
In Median Storage, #         ·         0         ·         ·         ·         0         ·	Minimedian Storage, #         ·         0         ·         ·         0         ·         ·         0         ·         ·         0         ·         ·         0         ·         ·         0         ·         ·         0         ·         ·         0         ·         ·         0         ·         ·         0         ·         ·         0         ·         ·         0         ·         ·         0         ·         ·         0         ·         ·         0         ·         ·         0         ·         ·         0         ·         ·         0         0         0         0         0         0         0         0         0         0         0	In Median Storage, #         ·         0         ·         ·         ·         ·         0         ·	in Median Storage, #	0		575	'		•	'			'	1
i.e. %         ·         0         ·         0         ·         0         ·         0         ·         0         ·         0         ·         0         ·         0         ·         0         ·         0         ·         0         ·         0         0         ·         0         0         ·         0         0         ·         0         0         ·         0         0         0         ·         0         0         0         ·         0 </td <td>6.%          0          0          0          0          0          0          0          0          0          0          0          0&lt;</td> <td>de. %         ·         0         ·         ·         0         ·         0         ·         ·         0         ·         ·         0         ·         ·         0         ·         ·         0         ·         ·         0         ·         ·         ·         0         ·         ·         0         ·         ·         0         ·         ·         ·         0         ·         ·         ·         ·         ·         ·         ·         0         ·         ·         ·         ·         0         ·         ·         ·         ·         0         ·         ·         ·         ·         0         ·         ·         0         ·         ·         ·         0         ·         ·         ·         0         ·</td> <td>de, % k Hour Factor 92 vy Verlides, % 2 nt Flow Major 1</td> <td>S</td> <td>•</td> <td>'</td> <td>0</td> <td>,</td> <td>1</td> <td>0</td> <td>,</td> <td>'</td> <td>0</td> <td>'</td>	6.%          0          0          0          0          0          0          0          0          0          0          0          0<	de. %         ·         0         ·         ·         0         ·         0         ·         ·         0         ·         ·         0         ·         ·         0         ·         ·         0         ·         ·         0         ·         ·         ·         0         ·         ·         0         ·         ·         0         ·         ·         ·         0         ·         ·         ·         ·         ·         ·         ·         0         ·         ·         ·         ·         0         ·         ·         ·         ·         0         ·         ·         ·         ·         0         ·         ·         0         ·         ·         ·         0         ·         ·         ·         0         ·	de, % k Hour Factor 92 vy Verlides, % 2 nt Flow Major 1	S	•	'	0	,	1	0	,	'	0	'
KHour Factor         92         93	Hour Factor         92	KHour Factor         92         93         93         131 </td <td>k Hour Factor 92 wy Vehicles, % 2 nt Flow 3 or/Minor MajorT</td> <td>0</td> <td></td> <td></td> <td>0</td> <td></td> <td>•</td> <td>0</td> <td></td> <td></td> <td>0</td> <td>1</td>	k Hour Factor 92 wy Vehicles, % 2 nt Flow 3 or/Minor MajorT	0			0		•	0			0	1
vy Vehicles, %         2 <th2< th="">         2         2         &lt;</th2<>	Wy Vehicles, %         Z <thz< th="">         Z         <thz< th=""> <t< td=""><td>wy Vehicles, %         2         115         11         115         11         115         11         115         11         115         11         115         11         115         11         115         11         115         11         115         11         115         11         115         11         115</td><td>vy Vehicles, % 2 nt Flow 3 or/Minor Major1</td><td>92</td><td>92</td><td>92</td><td>92</td><td>92</td><td>92</td><td>92</td><td>92</td><td>92</td><td>92</td><td>92</td></t<></thz<></thz<>	wy Vehicles, %         2         115         11         115         11         115         11         115         11         115         11         115         11         115         11         115         11         115         11         115         11         115         11         115         11         115	vy Vehicles, % 2 nt Flow 3 or/Minor Major1	92	92	92	92	92	92	92	92	92	92	92
nflow         3         275         14         20         345         3         96         15         1         0         1           Minor         Minor         Minor         Minor         Minor         Minor         Minor         Minor           Mich         Minor         Minor         Minor         367         282         731         661         562         522         731         651         552         553         553         553         553         553         553         553         553         553         553         553	miclow         3         2/5         14         20         345         3         7/5         14         0         1         1 <th1< th="">         1         1</th1<>	mf Flow         3         275         14         20         345         3         0         115         11           mfling         Miling         Miling <th< td=""><td>nt Flow 3 or/Minor Major1</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td></th<>	nt Flow 3 or/Minor Major1	2	2	2	2	2	2	2	2	2	2	2
Influent         Majori         Majori         Minori         346         280         380         346	Milori         Majori         Majori         Milori         Minori	Infling         Major         Major         Minori         Minori <thminori< th="">         Minori         Minori<!--</td--><td>or/Minor Major1</td><td>275</td><td>14</td><td>20</td><td>345</td><td>ŝ</td><td>96</td><td>0</td><td>115</td><td>-</td><td>0</td><td></td></thminori<>	or/Minor Major1	275	14	20	345	ŝ	96	0	115	-	0	
Minor         Major         Major         Minor         Minor           Slight         348         0         0         289         380         381         346 <td< td=""><td>orthindr         Majori         Minori         Minori         Minori           Singe 1         -         -         -         289         0         0         289         22         335         345         <td< td=""><td>orthinor         Major1         Major2         Minor1         Minor1         Minor1           fileing Flow Mi         348         0         0         239         0         675         675         675         282         731           Singe 1         -         -         -         239         381         -         346           Singe 1         -         -         -         -         239         536         -         346           Singe 1         -         -         -         -         -         239         371         -         346           Singe 1         -         -         -         -         -         -         361         -         <td< td=""><td>or/Minor Major1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<></td></td<></td></td<>	orthindr         Majori         Minori         Minori         Minori           Singe 1         -         -         -         289         0         0         289         22         335         345 <td< td=""><td>orthinor         Major1         Major2         Minor1         Minor1         Minor1           fileing Flow Mi         348         0         0         239         0         675         675         675         282         731           Singe 1         -         -         -         239         381         -         346           Singe 1         -         -         -         -         239         536         -         346           Singe 1         -         -         -         -         -         239         371         -         346           Singe 1         -         -         -         -         -         -         361         -         <td< td=""><td>or/Minor Major1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<></td></td<>	orthinor         Major1         Major2         Minor1         Minor1         Minor1           fileing Flow Mi         348         0         0         239         0         675         675         675         282         731           Singe 1         -         -         -         239         381         -         346           Singe 1         -         -         -         -         239         536         -         346           Singe 1         -         -         -         -         -         239         371         -         346           Singe 1         -         -         -         -         -         -         361         - <td< td=""><td>or/Minor Major1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	or/Minor Major1											
Ricting Flow All         348         0         0         239         0         6         5         6/1         282         731         681         346           Stagge1         -         -         -         -         -         283         386         -         386         387         -         346         346         -         346         552         6.22         7.12         6.55         6.22         7.12         6.55         6.22         -         6.12         552         -         6.12         552         -         6.12         552         -         6.12         552         -         6.12         552         -         6.12         552         -         6.12         552         -         6.12         552         -         6.12         552         -         6.12         552         -         6.12         552         -         6.12         552         -         6.12         552         -         6.12         552         -         6.12         552         -         6.12         552         -         6.13         6.13         6.13         6.13         6.13         6.13         6.13         6.13         5.13         6.13 <t< td=""><td>Alternational         348         0         0         299         0         675         676         282         731         681         346</td><td>Altering Flow All         348         0         0         239         0         0         55         55         56         52         233         333         333         335         336         335         335         335         335         335         335         335         335         335         336         335         335         336         335         335         335         336         335         335         336         335         335         336         335<!--</td--><td></td><td></td><td></td><td>Major2</td><td></td><td></td><td>Minor1</td><td></td><td></td><td>Minor2</td><td></td><td></td></td></t<>	Alternational         348         0         0         299         0         675         676         282         731         681         346	Altering Flow All         348         0         0         239         0         0         55         55         56         52         233         333         333         335         336         335         335         335         335         335         335         335         335         335         336         335         335         336         335         335         335         336         335         335         336         335         335         336         335 </td <td></td> <td></td> <td></td> <td>Major2</td> <td></td> <td></td> <td>Minor1</td> <td></td> <td></td> <td>Minor2</td> <td></td> <td></td>				Major2			Minor1			Minor2		
Stage 1         · </td <td>Sigge1         ·<td>Sigge 1         ·<!--</td--><td>flicting Flow All 348</td><td>0</td><td>0</td><td>289</td><td>0</td><td>0</td><td>675</td><td>676</td><td>282</td><td>731</td><td>681</td><td>346</td></td></td>	Sigge1         · <td>Sigge 1         ·<!--</td--><td>flicting Flow All 348</td><td>0</td><td>0</td><td>289</td><td>0</td><td>0</td><td>675</td><td>676</td><td>282</td><td>731</td><td>681</td><td>346</td></td>	Sigge 1         · </td <td>flicting Flow All 348</td> <td>0</td> <td>0</td> <td>289</td> <td>0</td> <td>0</td> <td>675</td> <td>676</td> <td>282</td> <td>731</td> <td>681</td> <td>346</td>	flicting Flow All 348	0	0	289	0	0	675	676	282	731	681	346
	Singe 2       -       -       -       -       -       346       296       22       7.12       6.22       7.12       6.52       6.12       5.52       -       6.12       5.52       -       6.12       5.52       -       6.12       5.52       -       6.12       5.52       -       6.12       5.52       -       6.12       5.52       -       6.12       5.52       -       6.12       5.52       -       6.12       5.52       -       6.12       5.52       -       6.12       5.52       -       6.12       5.52       -       6.12       5.52       -       6.12       5.52       -       6.12       5.52       -       6.12       5.52       -       6.12       5.52       -       6.12       5.52       -       6.13       5.52       -       6.13       5.52       -       6.13       5.52       -       6.13       6.14       6.14       6.14       6.14       <		Stage 1 -	ľ	•		1		289	289	•	385	385	Ċ
Index         4.12         ·         4.12         ·         4.12         ·         4.12         ·         1.12         6.52         6.22         1.12         6.52         6.22         1.12         6.55         6.22         1.12         6.55         6.22         1.12         6.55         6.22         1.12         6.55         6.22         1.12         6.55         6.12         5.55         ·         6.12         5.55         ·         6.12         5.55         ·         6.12         5.55         ·         6.12         5.55         ·         6.12         5.55         ·         6.12         5.55         ·         6.12         5.55         ·         6.12         5.55         ·         6.12         5.55         ·         6.12         5.55         ·         6.12         5.55         ·         6.12         5.55         ·         6.13 <th6.13< th=""> <th6.13< th=""> <th6.13< td="" th<=""><td>Call Howy         4.12         ·         4.12         ·         4.12         ·         4.12         ·         1.12         6.52         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.13         5.52         ·         6.13         5.52         ·         6.13         5.52         ·         6.13         5.52         ·         6.13</td><td>Icid Holoy         4.12         ·         4.12         ·         4.12         ·         6.12         5.22         ·         6.12         5.12         ·         6.12         5.12         ·         6.12         5.12         ·         6.12         5.12         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.13         5.52         ·         6.13         5.52         ·         6.13         5.52         ·         6.13         5.53         ·         6.13         5.53         ·         6.13         5.53         ·         6.13         5.53         ·         6.13         5.53         ·         6.13         5.53         ·         6.13         5.53         ·         6.13         5.53         ·         6.13         5.53         ·         6.13         5.51         ·         6.13         5.51         ·         6.13         5.51         ·         6.13         5.51         ·         6.13         5.51         ·         6.13         5.51         ·         6.13         5.51         ·         6.13         5.51         ·         6.53         5.51         ·         6.51         5.51</td><td>Stage 2 -</td><td></td><td></td><td></td><td>'</td><td></td><td>386</td><td>387</td><td></td><td>346</td><td>296</td><td></td></th6.13<></th6.13<></th6.13<>	Call Howy         4.12         ·         4.12         ·         4.12         ·         4.12         ·         1.12         6.52         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.13         5.52         ·         6.13         5.52         ·         6.13         5.52         ·         6.13         5.52         ·         6.13	Icid Holoy         4.12         ·         4.12         ·         4.12         ·         6.12         5.22         ·         6.12         5.12         ·         6.12         5.12         ·         6.12         5.12         ·         6.12         5.12         ·         6.12         5.52         ·         6.12         5.52         ·         6.12         5.52         ·         6.13         5.52         ·         6.13         5.52         ·         6.13         5.52         ·         6.13         5.53         ·         6.13         5.53         ·         6.13         5.53         ·         6.13         5.53         ·         6.13         5.53         ·         6.13         5.53         ·         6.13         5.53         ·         6.13         5.53         ·         6.13         5.53         ·         6.13         5.51         ·         6.13         5.51         ·         6.13         5.51         ·         6.13         5.51         ·         6.13         5.51         ·         6.13         5.51         ·         6.13         5.51         ·         6.13         5.51         ·         6.53         5.51         ·         6.51         5.51	Stage 2 -				'		386	387		346	296	
all Holdy Sig1       ·	Idi Houy Sig1	Ical Hduy Sig1       -	ical Hdwy 4.12	1		4.12	1		7.12	6.52	6.22	7.12	6.52	6.22
cliptions/Sig2       .	air Hidwy Sig 2       .	tail Hdwy Slg 2       -	ical Hdwy Stg 1	1			1		6.12	5.52		6.12	5.52	1
Wwup HdWy         2.218         ·         2.218         ·         2.218         ·         2.218         ·         2.218         ·         2.218         ·         3.31         3.318         6.97         3.318 <th< td=""><td>ow-up Howy         2.218         -         2.218         -         -         2.318         4.018         3.318         4.018         3.318         4.018         3.318         4.018         3.318         4.018         3.31         6.7         3.31         6.7         3.31         6.7         5.31         6.7         5.31         6.7         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         &lt;</td><td>ow-up Holoy         2.218         ·         2.218         ·         2.218         ·         3.318</td><td>ical Hdwy Stg 2</td><td>1</td><td></td><td>'</td><td>1</td><td></td><td>6.12</td><td>5.52</td><td></td><td>6.12</td><td>5.52</td><td></td></th<>	ow-up Howy         2.218         -         2.218         -         -         2.318         4.018         3.318         4.018         3.318         4.018         3.318         4.018         3.318         4.018         3.31         6.7         3.31         6.7         3.31         6.7         5.31         6.7         5.31         6.7         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         5.33         <	ow-up Holoy         2.218         ·         2.218         ·         2.218         ·         3.318	ical Hdwy Stg 2	1		'	1		6.12	5.52		6.12	5.52	
Cap-1 Maneuver         1211         -         1273         -         368         375         537         337         373         697           Cap-1 Maneuver         1         -         -         -         -         -         -         639         617         -         638         611         -           Stage1         -         -         -         -         -         170         -         633         611         -         -         639         617         -         638         617         -         638         617         -         638         617         -         638         617         -         638         617         -         638         617         -         638         617         -         638         617         -         638         617         -         638         617         -         638         617         -         616         617         617         616         -         -         561         661         -         -         561         661         -         -         561         661         -         -         561         666         -         -         561         666         - </td <td>Gap I Maneuver         1211         ·         1273         ·         336         337         337         337         337         337         337         337         577         337         337         577         337         337         577         337         577         337         571         <math>337</math>         571         <math>537</math> <math>610</math> <math>668</math> <math>-</math>           Stage 2         .</td> <td>Gap-1 Maneuver         1211         -         1273         -         336         375         757         337           Slage1         -         -         -         -         -         -         -         633         57         57         337           Slage1         -         -         -         -         -         -         637         610         -         673         610         -         670         638         577         282         -         670         670         -         670         670         -         670         560         570</td> <td>ow-up Hdwy 2.218</td> <td>1</td> <td></td> <td>2.218</td> <td>1</td> <td></td> <td>3.518</td> <td>4.018</td> <td>3.318</td> <td>3.518</td> <td>4.018</td> <td>3.318</td>	Gap I Maneuver         1211         ·         1273         ·         336         337         337         337         337         337         337         337         577         337         337         577         337         337         577         337         577         337         571 $337$ 571 $537$ $610$ $668$ $-$ Stage 2         .	Gap-1 Maneuver         1211         -         1273         -         336         375         757         337           Slage1         -         -         -         -         -         -         -         633         57         57         337           Slage1         -         -         -         -         -         -         637         610         -         673         610         -         670         638         577         282         -         670         670         -         670         670         -         670         560         570	ow-up Hdwy 2.218	1		2.218	1		3.518	4.018	3.318	3.518	4.018	3.318
Slage1     ·     ·     ·     ·     ·     63     611     ·     638     611     ·       Slage2     ·     ·     ·     ·     ·     ·     ·     630     610     660     561     670     660     561     670     660     561     670     670     660     561     670     670     670     670     670     670     670     670     670     670     670     670     670     561     571     561     561     561     561     561     561     561     561     561     561     <	Sigge1 <t< td=""><td>Sigge1       -       -       -       -       719       6/3       -       6/3       6/0       -       6/3       5</td><td>Cap-1 Maneuver 1211</td><td>1</td><td>•</td><td>1273</td><td>1</td><td></td><td>368</td><td>375</td><td>757</td><td>337</td><td>373</td><td>697</td></t<>	Sigge1       -       -       -       -       719       6/3       -       6/3       6/0       -       6/3       5	Cap-1 Maneuver 1211	1	•	1273	1		368	375	757	337	373	697
Stage 2         · · · · · · · · · · · · · · · · · · ·	Sigge 2       5.1       6.7       6.70       6.8       -         Cap-1 Maneuver       121       -       -       123       -       32       38       757       282       366       677         Cap-1 Maneuver       121       -       -       1233       -       -       362       368       -       282       366       677       -       563       601       -       -       563       601 <td>Slage 2         · · · · · · · · · · · · · · · · · · ·</td> <td>Stage 1 -</td> <td></td> <td></td> <td></td> <td>'</td> <td></td> <td>719</td> <td>673</td> <td></td> <td>638</td> <td>611</td> <td></td>	Slage 2         · · · · · · · · · · · · · · · · · · ·	Stage 1 -				'		719	673		638	611	
oon blocked,%         ·         <	on blocked, %         -         -         -         -         -         -         -         282         366         697           Cap-1 Maneuver         1211         -         -         1273         -         -         282         366         697           Cap-2 Maneuver         1211         -         -         171         671         -         636         -           Stage 1         -         -         -         -         -         -         636         -         -         567         660         -           Stage 1         -         -         -         -         -         -         636         601         -         -         567         666         -         -         567         666         -         -         556         601         -         -         567         666         -         -         -         561         -         -         561         -         -         -         561         -         -         -         561         -         -         -         117.1         -         -         17.1         -         -         -         -         -         -         - <td>Oon blocked, %         Image         Image</td> <td>Stage 2</td> <td>1</td> <td>•</td> <td></td> <td>'</td> <td></td> <td>637</td> <td>610</td> <td>•</td> <td>670</td> <td>668</td> <td></td>	Oon blocked, %         Image	Stage 2	1	•		'		637	610	•	670	668	
Cap-1 Maneuver         1211         -         1273         -         362         368         757         282         366         697           Cap-1 Maneuver         -         -         -         -         -         362         368         757         282         366         697           Cap-2 Maneuver         -         -         -         -         -         362         368         -         282         366         -         -         365         601         -         567         660         -         567         666         -         363         601         -         -         567         666         -         368         -         368         -         368         -         -         368         601         -         366         671         -         -         567         660         -         567         666         -         -         368         -         -         368         -         -         368         -         -         368         -         -         368         -         -         368         -         -         368         -         -         368         -         -         361 <td>Cap-1 Maneuver       1211       -       1273       -       342       368       757       282       366       677         Cap-2 Maneuver       -       -       -       -       -       342       348       757       282       366       677         Cap-2 Maneuver       -       -       -       -       -       342       348       -       282       366       -       -       352       366       -       -       358       366       -       -       352       366       -       -       -       557       601       -       -       358       -       358       366       671       -       -       -       557       660       -       557       660       -       557       660       -       557       660       -       567       660       -       567       660       -       567       660       -       567       660       -       567       660       -       567       660       -       567       660       -       567       660       -       567       660       -       567       660       -       567       660       -       567</td> <td>Cap-I Maneuver         1211         .         1273         .         342         346         757         282           Cap-I Maneuver         .</td> <td>toon blocked, %</td> <td>1</td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Cap-1 Maneuver       1211       -       1273       -       342       368       757       282       366       677         Cap-2 Maneuver       -       -       -       -       -       342       348       757       282       366       677         Cap-2 Maneuver       -       -       -       -       -       342       348       -       282       366       -       -       352       366       -       -       358       366       -       -       352       366       -       -       -       557       601       -       -       358       -       358       366       671       -       -       -       557       660       -       557       660       -       557       660       -       557       660       -       567       660       -       567       660       -       567       660       -       567       660       -       567       660       -       567       660       -       567       660       -       567       660       -       567       660       -       567       660       -       567       660       -       567	Cap-I Maneuver         1211         .         1273         .         342         346         757         282           Cap-I Maneuver         .	toon blocked, %	1			1							
Cap 2 Maneuver       ·       ·       ·       ·       ·       232       368       ·       232       366       ·       ·       234       ·       234       ·       232       366       ·       ·       234       ·       238       ·       232       366       ·       235       366       ·       ·       235       366       ·       ·       235       366       ·       ·       353       366       ·       ·       356       366       ·       ·       356       366       ·       ·       367       366       ·       ·       367       366       ·       ·       367       366       ·       ·       366       ·       ·       363       601       ·       ·       363       601       ·       ·       364       ·       ·       364       ·       ·       366       ·       ·       366       ·       ·       364       ·       ·       364       ·       ·       364       ·       ·       364       ·       ·       366       ·       ·       ·       366       ·       ·       ·       364       ·       ·       ·       ·       364 <td>Cap:2 Maneuver  </td> <td>Cape2 Maneuver       -       -       -       -       -       322       368       -       282         Stage 1       -       -       -       -       -       -       171       671       -       563         Stage 1       -       -       -       -       -       -       171       671       -       563         Stage 1       -       -       -       -       -       -       624       600       -       563         Stage 1       -       -       -       -       -       -       624       601       -       563         M control Delay.s       0.1       -       0.4       -       17.1       614       -       14         M Control Delay.s       0.1       -       0.4       -       -       0.2       -       -       -       614       -       <td< td=""><td>r Cap-1 Maneuver 1211</td><td>1</td><td>•</td><td>1273</td><td>1</td><td></td><td>362</td><td>368</td><td>757</td><td>282</td><td>366</td><td>697</td></td<></td>	Cap:2 Maneuver	Cape2 Maneuver       -       -       -       -       -       322       368       -       282         Stage 1       -       -       -       -       -       -       171       671       -       563         Stage 1       -       -       -       -       -       -       171       671       -       563         Stage 1       -       -       -       -       -       -       624       600       -       563         Stage 1       -       -       -       -       -       -       624       601       -       563         M control Delay.s       0.1       -       0.4       -       17.1       614       -       14         M Control Delay.s       0.1       -       0.4       -       -       0.2       -       -       -       614       - <td< td=""><td>r Cap-1 Maneuver 1211</td><td>1</td><td>•</td><td>1273</td><td>1</td><td></td><td>362</td><td>368</td><td>757</td><td>282</td><td>366</td><td>697</td></td<>	r Cap-1 Maneuver 1211	1	•	1273	1		362	368	757	282	366	697
Stage 1       · · · · · · · · · · · · · · · · · · ·	Stage 1       · · · · · · · · · · · · · · · · · · ·	Stage 1       · · · · · · · · · · · · · · · · · · ·	r Cap-2 Maneuver	1	•		1		362	368	•	282	366	1
Slage 2         · </td <td>Siage 2       · · · · · · · · · · · · · · · · · · ·</td> <td>Siage 2       · · · · · · · · · · · · · · · · · · ·</td> <td>Stage 1 -</td> <td>1</td> <td>•</td> <td></td> <td>1</td> <td></td> <td>717</td> <td>671</td> <td>•</td> <td>636</td> <td>601</td> <td>'</td>	Siage 2       · · · · · · · · · · · · · · · · · · ·	Siage 2       · · · · · · · · · · · · · · · · · · ·	Stage 1 -	1	•		1		717	671	•	636	601	'
Coact         EB         WB         NB         SB           A Control Delay, s         0.1         0.4         17.1         14           A LOS         0.1         0.4         17.1         14           A Lane/Major Mmt         NBL/1         EBL         EBR         WB1         WBR SBI/n1           A clare/Major Mmt         0.417         0.03         -         1273         -         402           A Lane VC Ratio         0.417         0.03         -         1273         -         402           A Lane UC Ratio         0.417         0.03         -         17.9         -         14           A Lane UC S         C         A         -         A         -         402         A           A Flane UC S         C         A         -         -         14         -	Model         EB         WB         NB         SB           M Control Delay, s         0.1         0.4         17.1         14           M LOS         0.1         12.1         -         12.1         14           M Lane/Major Mwmt         NBLn1         EBL         EBR         WB         MBR SBLn1         20         20           M Lane V/C Ratio         0.417         0.03         -         -         402         20           M Lane V/C Ratio         0.417         0.03         -         -         14           M Lane LOS         C         A         -         -         14           M Lane LOS         C         A         -         -         14           M Lane LOS         C         A         -         -         0         -	Mode         EB         WB         NB         SB           M Control Delay, s         0.1         0.4         17.1         14           M LOS         0.1         0.4         17.1         14           M LOS         0.1         0.4         17.1         14           M LOS         0.1         1.4         17.1         14           M LOS         0.1         1.2         0.4         17.1         14           M LOS         506         1211         -         1273         -         402           M Lane VC Ratio         0.171         8         -         7.9         -         14           M Lane LOS         C         A         -         7.9         -         14           M Lane LOS         C         A         -         -         005         -           M Scht %tile Q(veh)         2         0         -         -         0         -         -	Stage 2 -				'		626	009		567	666	
match         EB         WB         NB         SB           A Control Delay, s         0.1         0.4         17.1         14           A LOS         0.1         0.4         17.1         14           A LOS         0.1         0.4         17.1         14           A Los         C         0.1         0.4         17.1         14           A Los         C         1         0.4         17.1         14           A Lane VIC Ratio         0.417         0.03         -         1273         -         402           A Lane VIC Ratio         0.417         0.03         -         -         0.005         -         14           A Control Delay (s)         17.1         8         -         7.9         -         14           A Lane UCS         C         A         -         A         -         14           A Tane UCS         C         A         -         -         14	moach         EB         WB         NB         SB         SB         NG         NG         NG         NG         SB         NG	model         EB         WB         NB         SB           M Control Delay, s         0.1         0.4         17.1         14           M LOS         0.1         121         -         17.1         14           M Los         506         1211         -         1273         -         402           M Lane V/C Ratio         0.417         0.015         -         0.015         -         14           M Lane V/C Ratio         0.417         8         -         7.9         -         14           M Lane LOS         C         A         -         A         -         14           M Lane LOS         C         A         -         0         -         0         -												
A Control Delay, s         0.1         0.4         17.1         14           A LOS         C         B         C         B           A LOS         C         D         C         B           A Los         C         C         B         B           A Lane VIC Ratio         0.41         D015         -         402           A Lane VIC Ratio         0.41         0.015         -         0.005           A Lane VIC Ratio         0.417         0.8         -         1273           A Lane UC Ratio         0.417         0.8         -         10.5           A Name UC Ratio         0.417         0.8         -         14           A name UC Ratio         0.417         0.9         -         14           A name UC Ratio         0.417         0.9         -         14	W Control Delay, s         0.1         0.4         17.1         14           W LOS         C         B         C         B           M LOS         C         BL         C         B           M LOS         C         A         2         0.1         14           M LOS         C         A         12.3         0.1         14           M Lane V/C Ratio         0.417         0.03         -         402           M Lane V/C Ratio         0.417         0.03         -         -         14           M Cantrol Delay (s)         17.1         8         -         79         -         14           M Cantrol Delay (s)         17.1         8         -         -         14           M Lane LOS         C         A         -         N         -         14           M Cantrol Delay (s)         17.1         8         -         -         14           M Lane LOS         C         A         -         N         -         0	W Control Delay, s         0.1         0.4         17.1         14           M LOS         C         C         B         C         B           M LOS         C         C         B         C         B           A LOS         C         BL         EBR WBL WBT WBR SBLn1         C         B           acity (veh)         506         1211         -         1273         -         402           M Lane VC Ratio         0.417         0.031         -         0.015         -         14           M Lane VC Ratio         0.417         B         -         7.9         -         14           M Lane LOS         C         A         -         0         -         0         -         0	broach EB			WB			NB			SB		
A LOS C B A LOS C B TL ane Major Mmt NBLn1 EBL EBT WBL WBL WBT WBR SBLn1 active VR Nilo 506 1211 - 1273 - 402 A Lane VIC Ratio 0.417 0.003 - 1075 - 0005 A Control Delay (s) 17.1 8 - 7.9 - 14 A Lane LOS C A - 7.9 - 14 A lane LOS C A - 7.0 - 015 A 0 - 017 0.005 A 0 - 017 0.005 A 0 - 0 - 0005 A 0 0 0 - 0005 A 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MLOS C B ALLOS C AL EN EN WEL WEL WEL WEL WEL SEL A active (verbr) 506 1211 - 1273 - 402 M Lane VC Ratio 0.417 0.003 - 0.015 - 0.005 M Cantrol Delay (s) 17.1 8 - 7.9 - 14 M Lane LOS C A - A - A - B M Lane LOS C A 0 0 0	M LOS C C B and Wellyn MBL/1 EBL EBT BR WBL WBT WBR SBL/1 or LaneMajor Mmnt NBL/1 EBL EBT BR WBL WBT WBR SBL/1 and volume 1 2003	M Control Delay, s 0.1			0.4			17.1			14		
TLane/Major         NBLr1         EBL         EBR         WBL         WBT         WBR SBLr1           acity (ve/h)         506         1211         -         1273         -         402           Al Lane V/C Ratio         0.417         0.033         -         0.015         -         402           Al Lane V/C Ratio         0.417         0.033         -         0.015         -         10.005           A Control Delay (s)         17.1         8         -         7.9         -         14           A Lane LOS         C         A         -         A         -         14           A Shih %ulte Q(veh)         2         0         -         0         -         0         -         0	or Lane/Major Mvmt NBLn1 EBL EBR WBL WBT WBR SBLn1 acity (vehn) 506 1211 - 1273 - 402 M Lane V/C Ratio 0.417 0.003 - 0.015 - 0.005 M Control Delay (s) 17,1 8 - 7,9 - 14 M Lane LOS C A - A - B M Lane LOS C A - 0 - 0 - 0 - 0	rt Lane/Majort Munt NBLn1 EBL EBR WIBL WBT WBR SBLn1 actify (verM) 506 1211 - 1273 - 402 M Lane V/C Ratio 0.417 0.003 - 0.015 - 0.005 M Cantrol Delay (s) 17.1 8 - 7.9 - 14 M Lane LOS C A - A - B M Sch %ile Q(ver) 2 0 - 0 - 0	M LOS						U			В		
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A Lane VCR Ratio 0.417 0.003 - 0.015 - 0.005 A Control Delay (s) 17.1 8 - 7.9 - 14 A Lane LOS C A - A - A - B A Stih %tile Q(veh) 2 0 - 0 - 0 - 0	M Lano VXXX Ratio 0.417 0.003 - 0.015 - 0.005 M Cantrol Delay (s) 17.1 8 - 7.9 - 14 M Lane LOS C A - A - B M Stih %tile Q(veh) 2 0 0 0 0	M Lang Vicinio 0,417,0003 0,015 0,005 M Lang Vicinio 0,417,003 7,9 14 M Lang LOS C A A B M Shih Sitie Q(veh) 2 0 0 0	activ (veh/h) 506	1211		- 1273	-	- 40						
A control Delay (s) 17.1 8 7.9 14 A rane LOS C A A - B A Shih sulle Q(veh) 2 0 0 0	M Control Delay (s) 17.1 8 7.9 14 M Lane LOS C A A B M Sth %tile Q(veh) 2 0 0 0	v Control Delay (s) 17.1 8 7.9 14 M Lane LOS C A A B M Skille Q(veh) 2 0 0 0	M I ane V/C Ratio 0.417	0.003		- 0.015	1	00.0	4.0					
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A 95th %file Q(veh) 2 0 0 0	vi 95th %tile Q(veh) 2 0 0 0	vi 95th %file Q(veh) 2 0 0 0	M Lane LOS	o d		- A			t or					
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	S Svnchro 9 Rep	IF S SVDr	JFS									Syn	chro 9 I	Rep

