

Traffic Impact Analysis McDaniel St Apts

McMinnville, Oregon

April 5, 2018

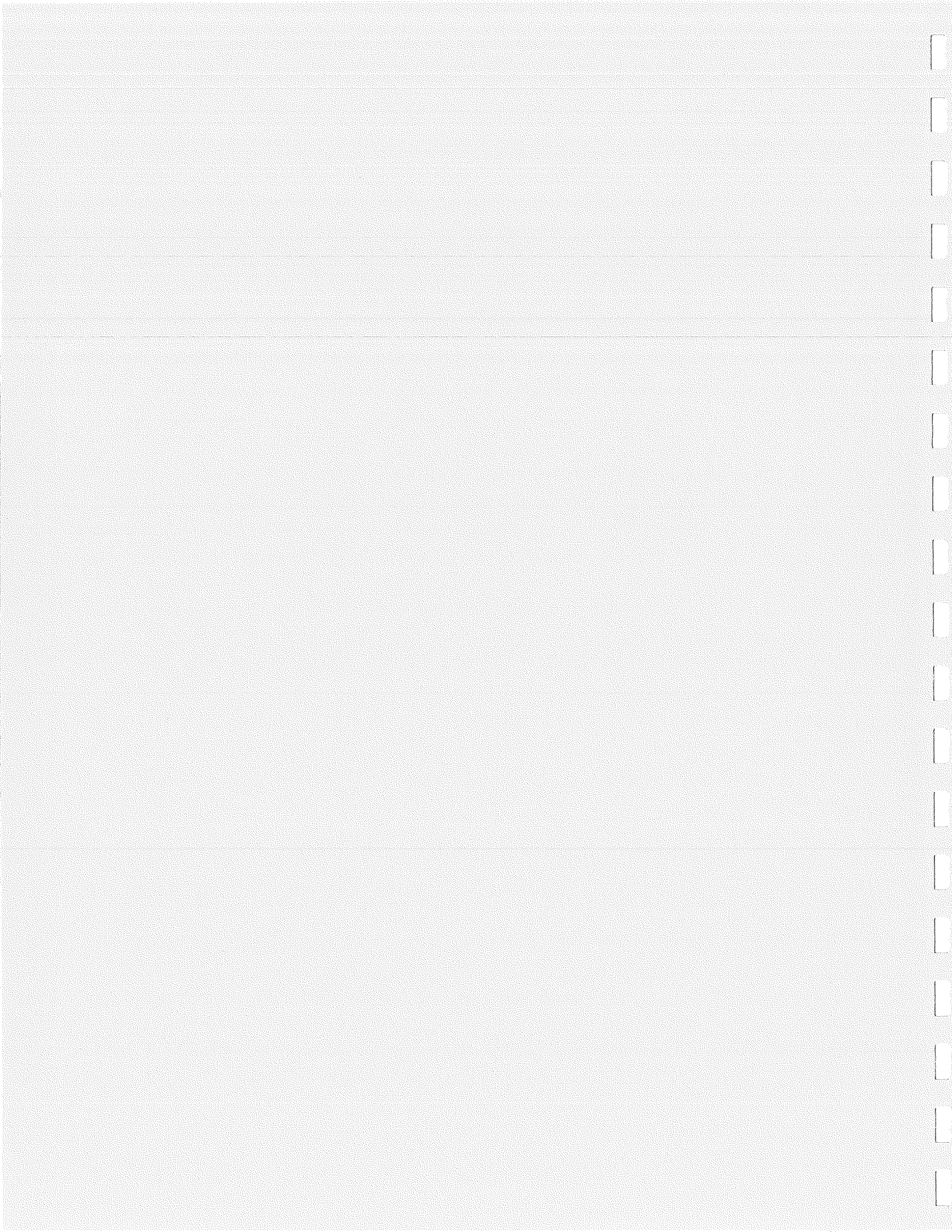
completed with
Del Boca Vista, LLC
Newberg, Oregon

Prepared by:
Associated Transportation Engineering & Planning, Inc.
Salem, Oregon
April 5, 2018



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Traffic Impact Analysis McDaniel St Apartments McMinnville, Oregon



Introduction:

McDaniel St Apartments are in preliminary planning stages for development in McMinnville, Oregon. Located west of the McDaniel St south of 17th St, the project will include 24 apartment units. The intent of this analysis is to estimate the impact traffic from the planned apartments will have on the transportation system in the City of McMinnville and to recommend improvements to the transportation system if appropriate. This analysis is intended to provide information needed to change the zoning from Light Industrial (M-1) to Multiple Family Residential (R-4) and for approval of the construction of the planned apartments. To meet the requirements of the TPR (Transportation Planning Rule) this analysis will assume there will be 29 apartment units (the maximum allowed under the R-4 zone).



Figure 1 - Aerial View of Site

Residents of McDaniel St Apartments will use the City of McMinnville transportation system and add traffic to the roadways. This analysis will consider the traffic impacts at the intersections of:

- McDaniel St at 19th St
- McDaniel St at 18th St
- McDaniel St at 17th St
- McDaniel St at Lafayette Ave
- McDaniel St Apts Access

Summary of Findings:

The development of 29 units will generate an estimated 15 trips in the AM Peak hour and 18 trips in the PM Peak hour. Residents will use the streets in the City of McMinnville transportation system adding additional traffic to the system. Traffic from the planned apartments will affect performance metrics at the studied intersections. All of the studied intersections will perform within accepted performance standards in the City of McMinnville (LOS A, B, C or D) with the expected traffic from the apartments.

There is and this study will assume continued storage for 2 vehicles wanting to use two stage gap acceptance to turn left from McDaniel at Lafayette (EBLT). There were 2 vehicles making the left turn in the AM and PM Peak hour periods. These turns are the most difficult turns to make and the City should continue monitoring the intersection during peak hours to assure left turns can be made safely, consider restriping the two stage gap acceptance refuge and/or restrict the intersections to right out only from McDaniel St.

History and Existing Conditions:

The project site is tax lot 7100 of tax map 4S 4W Sec 16DB and includes 1 acre. It is anticipated that construction will begin in 2018. The site is currently zoned Light Industrial (M-1) to. The developer is requesting the zoning be changed to Multiple Family Residential (R-4) in order that 24 apartments can be built on the parcel. This study will assume that 29 apartments are being built.

Crash data was provided by ODOT for the studied intersections for the 5 year period including 2011 through 2015. There were 3 reported injury crashes and 9 property damage crashes at the 4 studied intersections in the analyzed time period. There were no fatal crashes.

| ID | Intersection Name | Control Type | Method | Worst Mvmt | V/C | Delay (s/veh) | LOS |
|----|-----------------------|--------------|-----------------|------------|-------|---------------|-----|
| 1 | McDaniel at 19th St | All-way stop | HCM 6th Edition | SB Thru | 0.274 | 9.0 | A |
| 2 | McDaniel at 18th St | Two-way stop | HCM 6th Edition | EB Thru | 0.026 | 11.5 | B |
| 3 | McDaniel at 17th St | Two-way stop | HCM 6th Edition | EB Left | 0.018 | 10.6 | B |
| 4 | McDaniel at Lafayette | Two-way stop | HCM 6th Edition | SEB Left | 0.005 | 15.1 | C |

Existing AM Peak Hour Summary

| ID | Intersection Name | Control Type | Method | Worst Mvmt | V/C | Delay (s/veh) | LOS |
|----|-----------------------|--------------|-----------------|------------|-------|---------------|-----|
| 1 | McDaniel at 19th St | All-way stop | HCM 6th Edition | NB Thru | 0.240 | 8.9 | A |
| 2 | McDaniel at 18th St | Two-way stop | HCM 6th Edition | WB Thru | 0.025 | 11.8 | B |
| 3 | McDaniel at 17th St | Two-way stop | HCM 6th Edition | EB Left | 0.016 | 10.9 | B |
| 4 | McDaniel at Lafayette | Two-way stop | HCM 6th Edition | SEB Left | 0.007 | 22.2 | C |

Existing PM Peak Hour Summary

Figure 2 - Existing Traffic Conditions

The studied intersection are functioning at less than 28% of capacity (v/c < 0.280) and LOS C or better.

Crash Data provided by ODOT Crash Data Unit does not show an unusually high number of crashes at the studied intersections. There do not appear to be significant changes needed at the intersections for safety reasons.

| Intersection | Fatal Crashes | Injury Only | Property Damage Only | Total |
|--------------------------------|---------------|-------------|----------------------|-----------|
| • McDaniel St at 19th St | 0 | 0 | 3 | 3 |
| • McDaniel St at 18th St | 0 | 1 | 2 | 3 |
| • McDaniel St at 17th St | 0 | 0 | 0 | 0 |
| • McDaniel St at Lafayette Ave | 0 | 2 | 4 | 6 |
| Total | 0 | 3 | 9 | 12 |

Figure 3 – 2011 to 2105 ODOT Crash Data

Traffic Conditions when the McDaniel St Apts are occupied:

This analysis will assume that 30% of the traffic from the apartments will travel to and from the north on McDaniel St and 70% will travel to and from the south on McDaniel St. This study will also assume that other traffic will grow at 1.0 % each year through 2028. It assumes EBLT's use 2 stage gap acceptance at the McDaniel at Lafayette

| ID | Intersection Name | Control Type | Method | Worst Mvmt | V/C | Delay (s/veh) | LOS |
|----|-------------------------|--------------|-----------------|------------|-------|---------------|-----|
| 1 | McDaniel at 19th St | All-way stop | HCM 6th Edition | SB Thru | 0.275 | 9.0 | A |
| 2 | McDaniel at 18th St | Two-way stop | HCM 6th Edition | EB Thru | 0.026 | 11.5 | B |
| 3 | McDaniel at 17th St | Two-way stop | HCM 6th Edition | EB Left | 0.018 | 10.6 | B |
| 4 | McDaniel at Lafayette | Two-way stop | HCM 6th Edition | SEB Left | 0.005 | 15.2 | C |
| 5 | McDaniel at Site Access | Two-way stop | HCM 6th Edition | EB Left | 0.006 | 10.6 | B |

2018 AM Peak Hour Summary with McDaniel St Apts

| ID | Intersection Name | Control Type | Method | Worst Mvmt | V/C | Delay (s/veh) | LOS |
|----|-------------------------|--------------|-----------------|------------|-------|---------------|-----|
| 1 | McDaniel at 19th St | All-way stop | HCM 6th Edition | NB Thru | 0.243 | 8.9 | A |
| 2 | McDaniel at 18th St | Two-way stop | HCM 6th Edition | WB Thru | 0.025 | 11.8 | B |
| 3 | McDaniel at 17th St | Two-way stop | HCM 6th Edition | EB Left | 0.016 | 10.9 | B |
| 4 | McDaniel at Lafayette | Two-way stop | HCM 6th Edition | SEB Left | 0.008 | 22.5 | C |
| 5 | McDaniel at Site Access | Two-way stop | HCM 6th Edition | EB Left | 0.003 | 10.7 | B |

2018 PM Peak Hour Summary with McDaniel St Apts
Figure 4 – 2018 Traffic Conditions with McDaniel St Apts

| ID | Intersection Name | Control Type | Method | Worst Mvmt | V/C | Delay (s/veh) | LOS |
|----|-------------------------|--------------|-----------------|------------|-------|---------------|-----|
| 1 | McDaniel at 19th St | All-way stop | HCM 6th Edition | SB Thru | 0.307 | 9.4 | A |
| 2 | McDaniel at 18th St | Two-way stop | HCM 6th Edition | EB Left | 0.025 | 12.0 | B |
| 3 | McDaniel at 17th St | Two-way stop | HCM 6th Edition | EB Left | 0.022 | 10.9 | B |
| 4 | McDaniel at Lafayette | Two-way stop | HCM 6th Edition | SEB Left | 0.005 | 16.4 | C |
| 5 | McDaniel at Site Access | Two-way stop | HCM 6th Edition | EB Left | 0.006 | 10.8 | B |

2028 AM Peak Hour Summary with McDaniel St Apts

| ID | Intersection Name | Control Type | Method | Worst Mvmt | V/C | Delay (s/veh) | LOS |
|----|-------------------------|--------------|-----------------|------------|-------|---------------|-----|
| 1 | McDaniel at 19th St | All-way stop | HCM 6th Edition | NB Thru | 0.275 | 9.2 | A |
| 2 | McDaniel at 18th St | Two-way stop | HCM 6th Edition | WB Thru | 0.028 | 12.2 | B |
| 3 | McDaniel at 17th St | Two-way stop | HCM 6th Edition | EB Left | 0.019 | 11.3 | B |
| 4 | McDaniel at Lafayette | Two-way stop | HCM 6th Edition | SEB Left | 0.009 | 26.3 | D |
| 5 | McDaniel at Site Access | Two-way stop | HCM 6th Edition | EB Left | 0.003 | 11.0 | B |

2028 PM Peak Hour Summary with McDaniel St Apts
Figure 5 – 2028 Traffic Conditions with McDaniel St Apts

There will be no "significant effect" on the transportation system from changing the zoning of the parcel from M-1 to R-4. The transportation system will continue to function within City of McMinnville performance standards for the next 10 years.

Summary:

The development of the planned McDaniel St apartments will generate an estimated 15 trips in the AM Peak hour and 18 trips in the PM Peak hour. Residents of the apartments will use the streets in the City of McMinnville transportation system adding additional traffic to the system. Traffic from the apartments will affect performance metrics at the studied intersections.

All the studied intersections can handle the expected additional traffic and continue operating with generally accepted performance metrics. As traffic volumes increase through the intersections, the City should continue to monitor the performance of the studied intersections.

There will be no significant effect on the transportation system from changing the zoning of the parcel from M-1 to R-4. The transportation system will continue to function within City of McMinnville performance standards for the next 10 years.

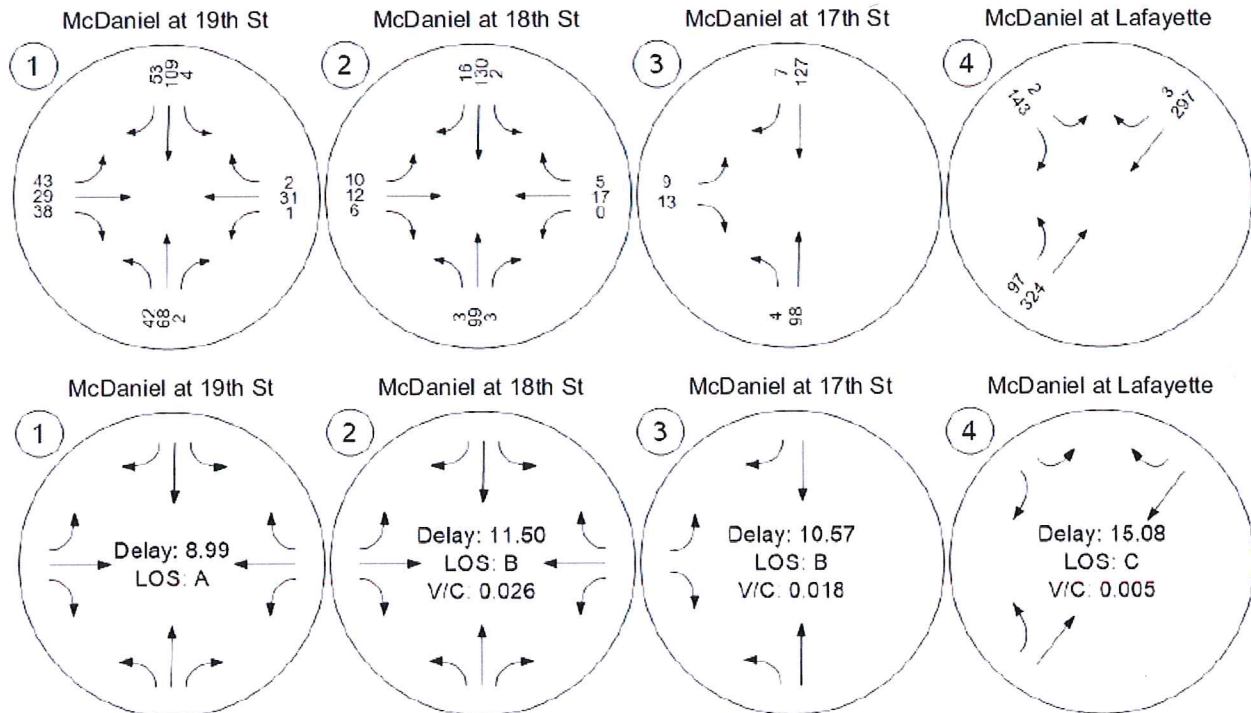


Figure 6 - Existing AM Peak hour Counts and Metrics

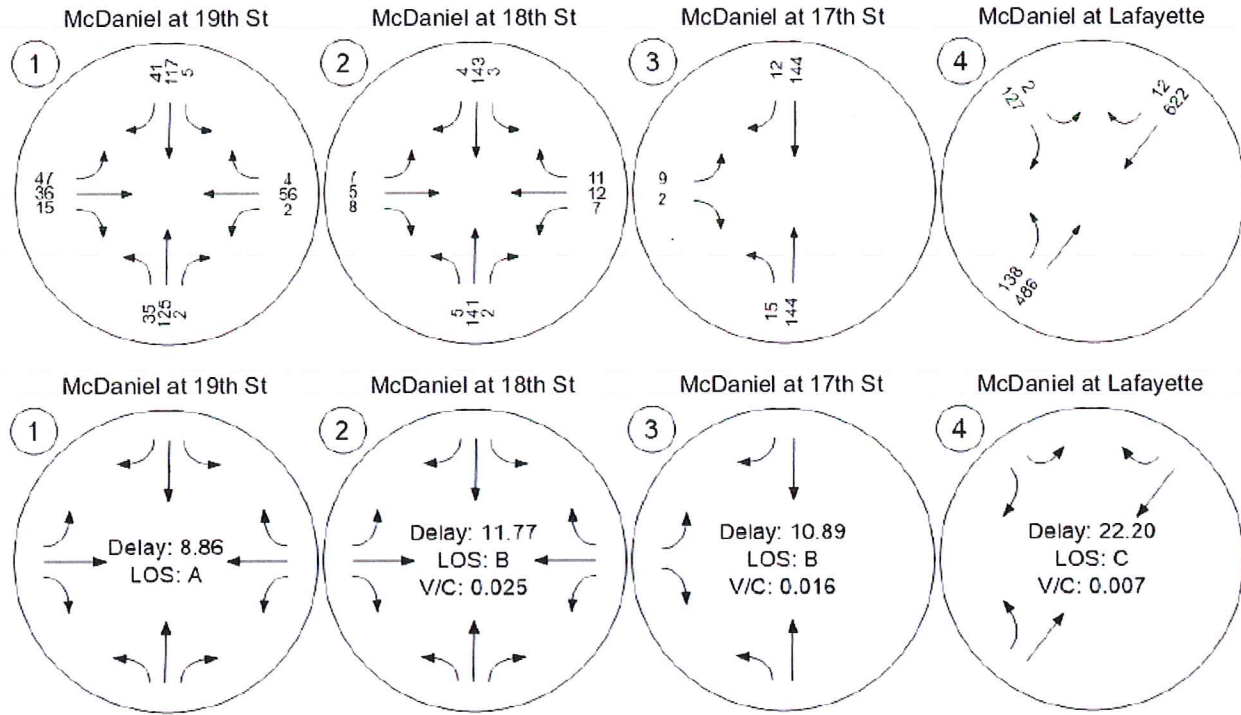


Figure 7 - Existing PM Peak hour Counts and Metrics

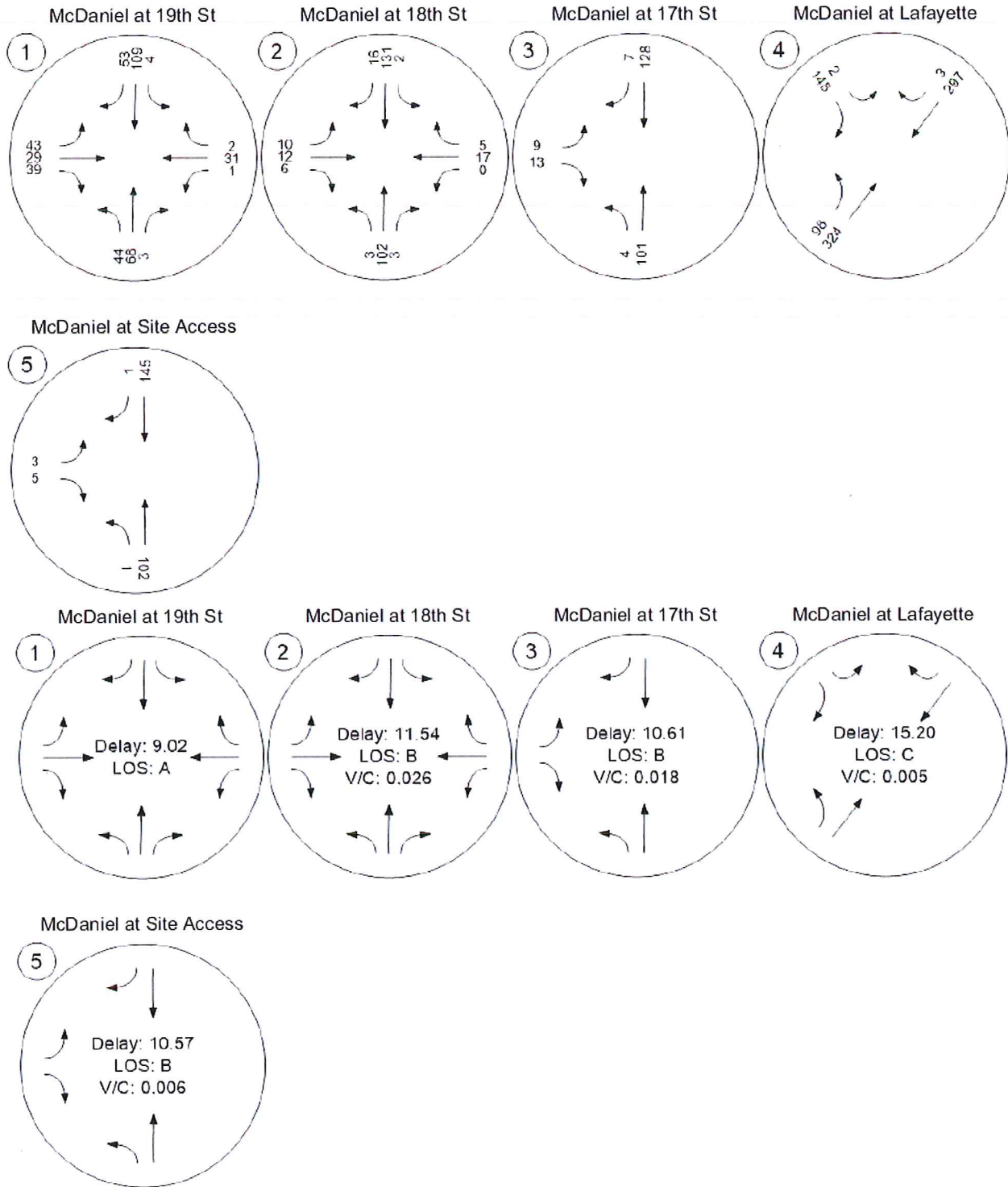


Figure 8 - 2018 AM Peak hour Counts and Metrics with McDaniel St Apts

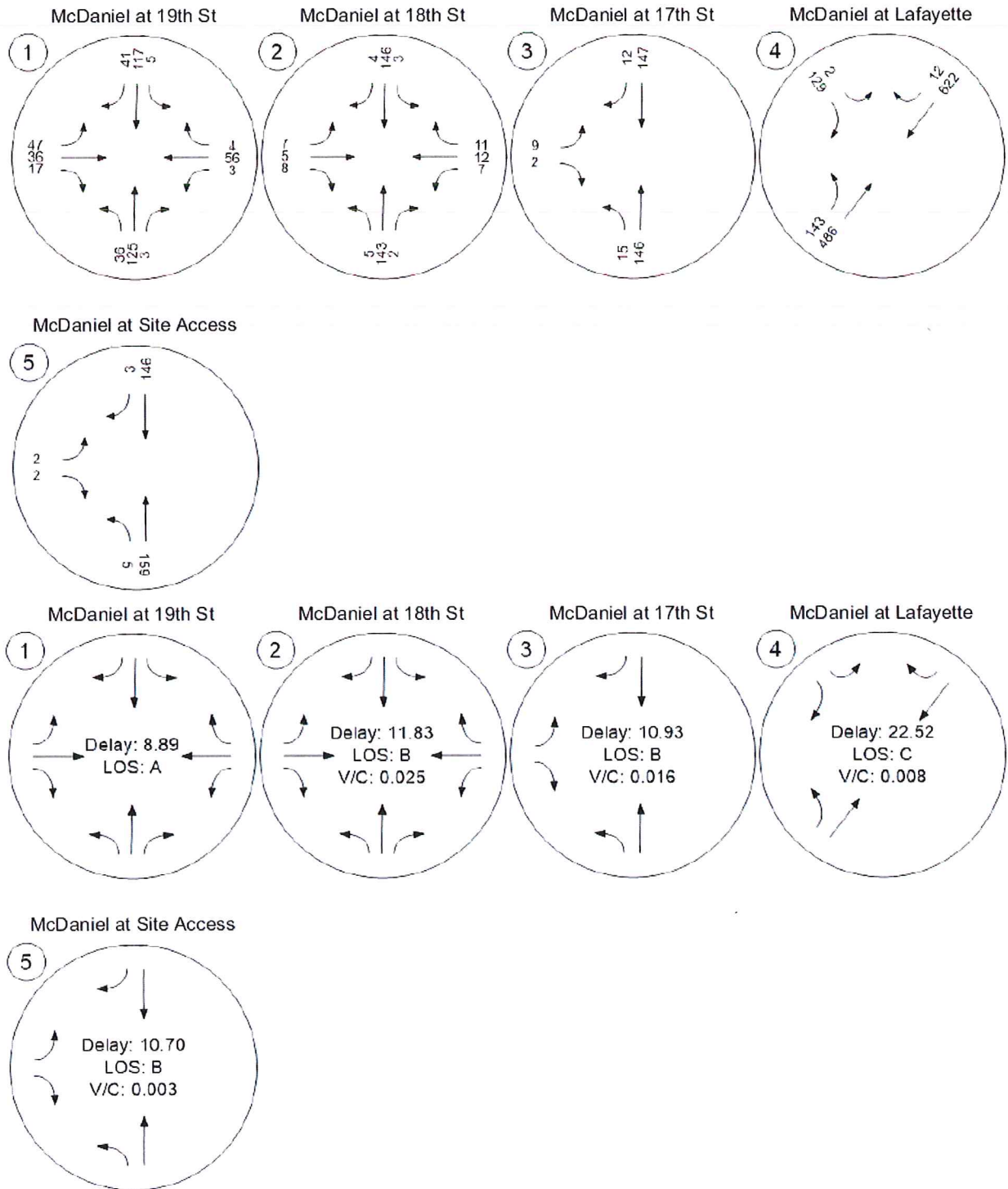


Figure 9 - 2018 PM Peak hour Counts and Metrics with McDaniel St Apts

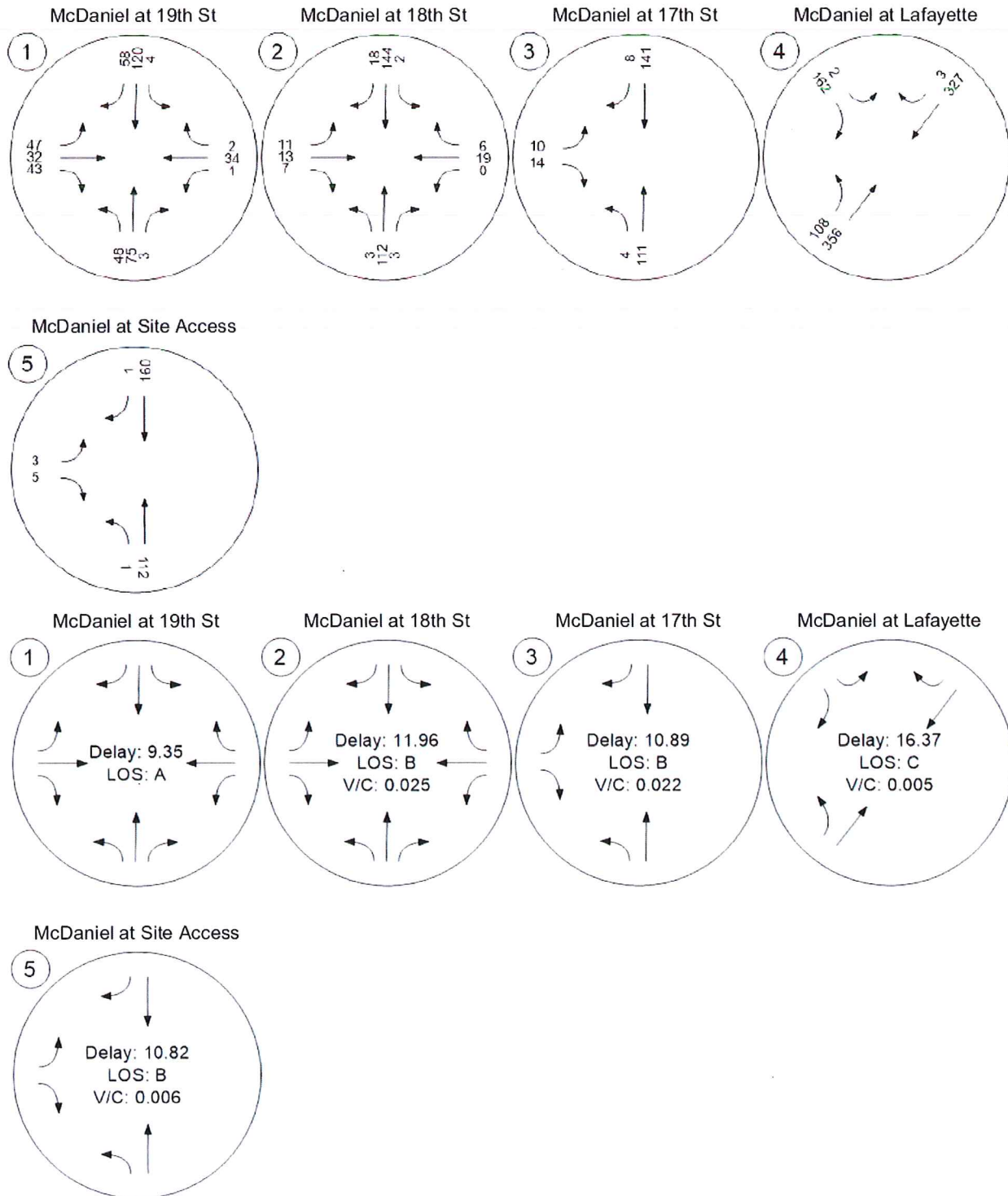


Figure 10 - 2028 AM Peak hour Counts and Metrics with McDaniel St Apts

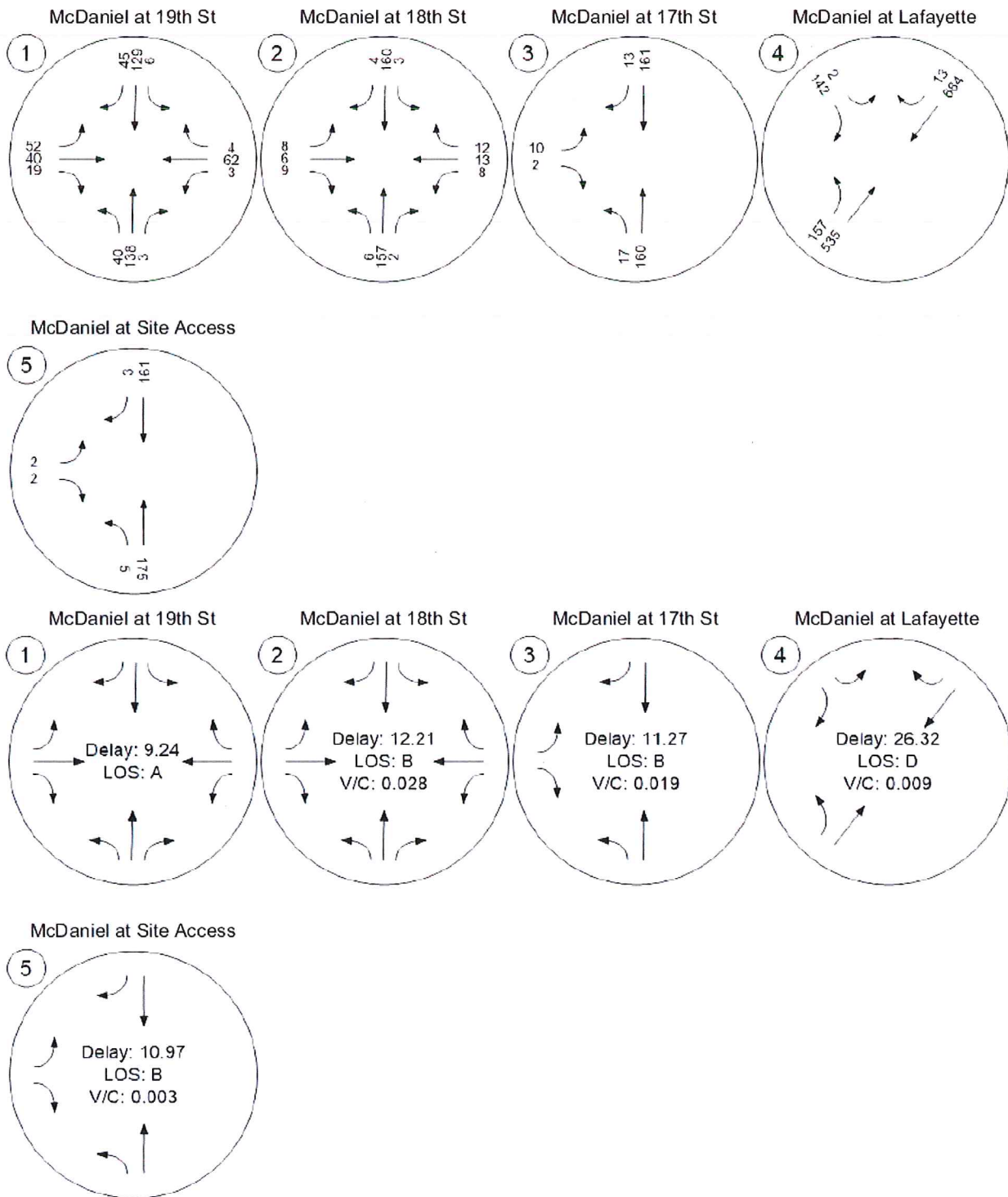


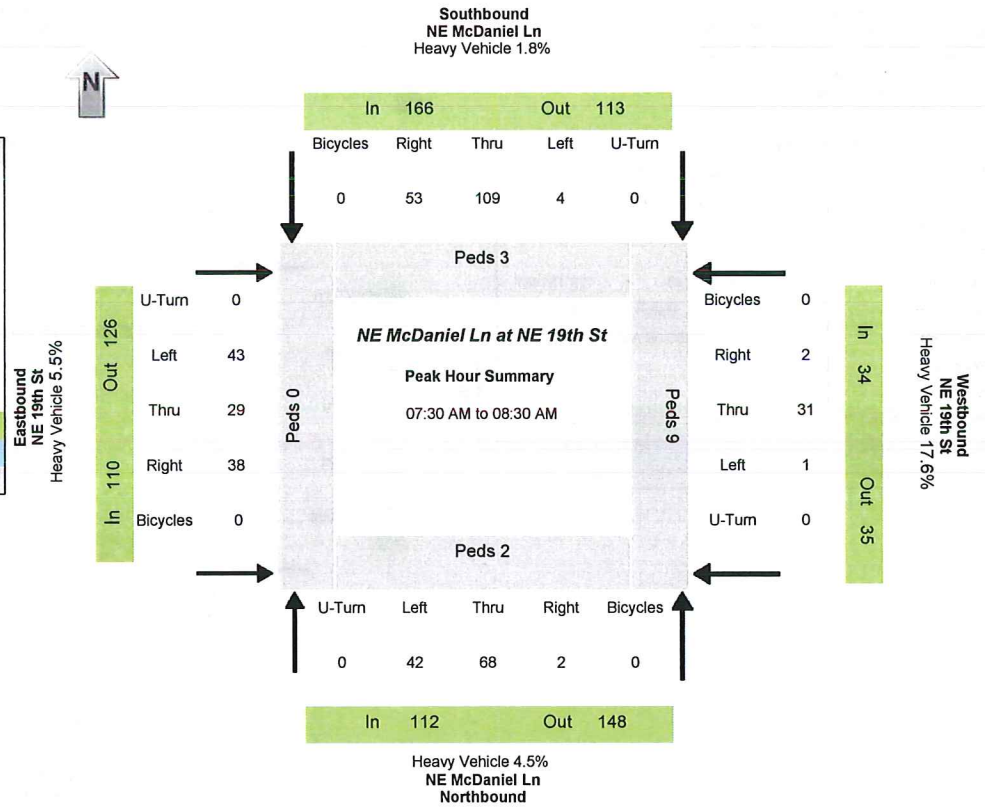
Figure 11 - 2028 PM Peak hour Counts and Metrics with McDaniel St Apts

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 603-594-4224

| | |
|-------------------|--------------------------|
| N/S street | NE McDaniel Ln |
| E/W street | NE 19th St |
| City, State | McMinnville OR |
| Site Notes | |
| Location | 42.201514 - -122.710905 |
| Start Date | Thursday, March 22, 2018 |
| Start Time | 07:00:00 AM |
| Weather | |
| Study ID # | |
| Peak Hour Start | 07:30:00 AM |
| Peak 15 Min Start | 08:10:00 AM |
| PHF (15-Min Int) | 0.75 |



| Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Entering | | | | Leaving | | | |
|------------|------|-------|-------|------------|------|-------|-------|-----------|------|-------|-------|-----------|------|-------|-------|----------|-----|-----|----|---------|-----|-----|----|
| Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | NB | SB | EB | WB | NB | SB | EB | WB |
| 42 | 68 | 2 | 0 | 4 | 109 | 53 | 0 | 43 | 29 | 38 | 0 | 1 | 31 | 2 | 0 | 112 | 166 | 110 | 34 | 148 | 113 | 126 | 35 |

| | | | | | | | | | | | | | | | | | | | | | | | |
|------|------|-------|------|-------|------|------|------|------|-------|------|------|------|-------|------|------|------|------|------|-------|------|------|------|-------|
| 0.0% | 5.9% | 50.0% | 0.0% | 25.0% | 1.8% | 0.0% | 0.0% | 4.7% | 10.3% | 2.6% | 0.0% | 0.0% | 19.4% | 0.0% | 0.0% | 4.5% | 1.8% | 5.5% | 17.6% | 2.0% | 5.3% | 4.8% | 14.3% |
|------|------|-------|------|-------|------|------|------|------|-------|------|------|------|-------|------|------|------|------|------|-------|------|------|------|-------|

| Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Sum | PHV - Pedestrians | | | | |
|------------|------|-------|-------|------------|------|-------|-------|-----------|------|-------|-------|-----------|------|-------|-------|-----|-------------------|----|----|----|-----|
| Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Sum | in Crosswalk | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | NB | SB | EB | WB | Sum |
| | | | | | | | | | | | | | | | | | 2 | 3 | 0 | 9 | 14 |

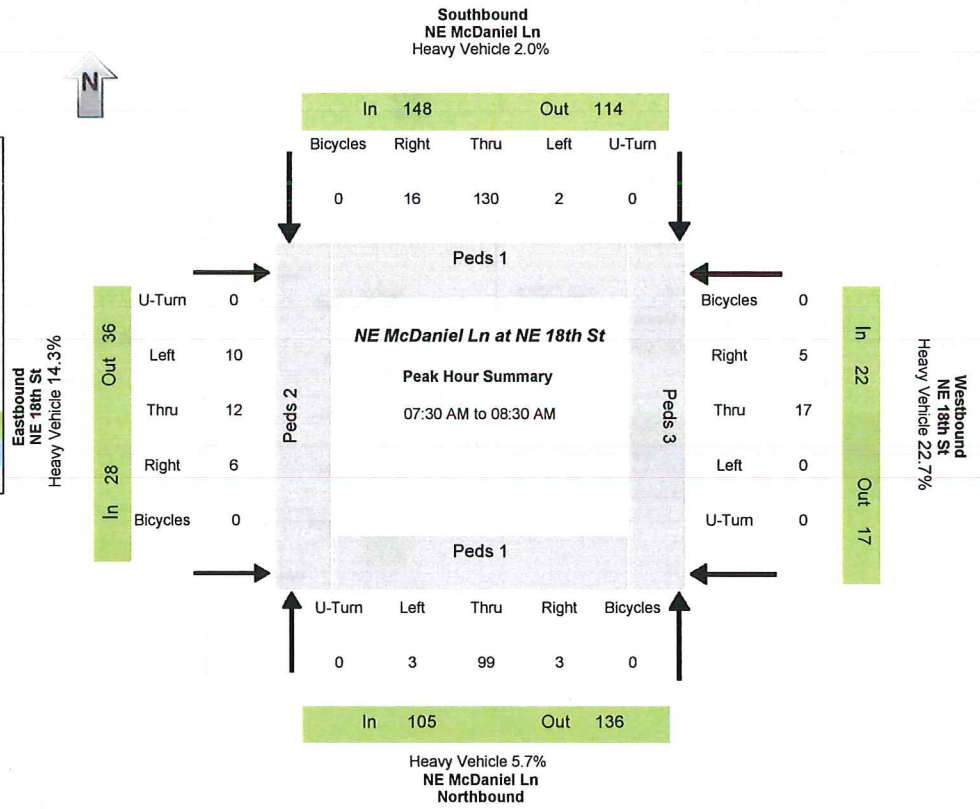
| Time | Northbound NE McDaniel Ln | | | | Southbound NE McDaniel Ln | | | | Eastbound NE 19th St | | | | Westbound NE 19th St | | | | 15 Min Sum | 1 HR Sum | |
|-------------|------------------------------|------|-------|-------|------------------------------|------|-------|-------|-------------------------|------|-------|-------|-------------------------|------|-------|-------|---------------|-------------|-----|
| | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | | | |
| 07:00:00 AM | 0 | 3 | 0 | 0 | 1 | 6 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | | |
| 07:05:00 AM | 1 | 2 | 1 | 0 | 0 | 4 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | | |
| 07:10:00 AM | 0 | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 2 | 1 | 0 | 36 | |
| 07:15:00 AM | 2 | 3 | 1 | 0 | 0 | 6 | 0 | 0 | 0 | 1 | 2 | 0 | 2 | 1 | 0 | 0 | 0 | 41 | |
| 07:20:00 AM | 2 | 2 | 1 | 0 | 0 | 4 | 0 | 0 | 1 | 3 | 0 | 0 | 6 | 1 | 0 | 0 | 0 | 48 | |
| 07:25:00 AM | 0 | 8 | 0 | 0 | 1 | 3 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 55 | |
| 07:30:00 AM | 1 | 3 | 0 | 0 | 0 | 10 | 2 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 56 | |
| 07:35:00 AM | 2 | 5 | 0 | 0 | 0 | 7 | 2 | 0 | 2 | 1 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 60 | |
| 07:40:00 AM | 4 | 5 | 0 | 0 | 1 | 4 | 6 | 0 | 2 | 4 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 74 | |
| 07:45:00 AM | 3 | 1 | 0 | 0 | 0 | 11 | 2 | 0 | 2 | 3 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 82 | |
| 07:50:00 AM | 1 | 4 | 1 | 0 | 1 | 12 | 7 | 0 | 6 | 1 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 96 | |
| 07:55:00 AM | 1 | 10 | 0 | 0 | 0 | 13 | 4 | 0 | 2 | 1 | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 101 | 266 |
| 08:00:00 AM | 4 | 5 | 0 | 0 | 1 | 3 | 0 | 0 | 3 | 6 | 3 | 0 | 4 | 0 | 0 | 0 | 0 | 103 | 282 |
| 08:05:00 AM | 7 | 5 | 0 | 0 | 0 | 10 | 7 | 0 | 4 | 5 | 7 | 0 | 2 | 0 | 0 | 0 | 0 | 112 | 316 |
| 08:10:00 AM | 7 | 11 | 1 | 0 | 0 | 12 | 8 | 0 | 5 | 0 | 4 | 0 | 3 | 0 | 0 | 0 | 0 | 127 | 357 |
| 08:15:00 AM | 4 | 3 | 0 | 0 | 0 | 13 | 8 | 0 | 7 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 138 | 379 |
| 08:20:00 AM | 6 | 11 | 0 | 0 | 0 | 8 | 3 | 0 | 6 | 2 | 10 | 0 | 3 | 0 | 0 | 0 | 0 | 140 | 408 |
| 08:25:00 AM | 2 | 5 | 0 | 0 | 1 | 6 | 4 | 0 | 2 | 5 | 2 | 0 | 3 | 1 | 0 | 0 | 0 | 120 | 422 |
| 08:30:00 AM | 0 | 6 | 0 | 0 | 0 | 4 | 1 | 0 | 2 | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 98 | 421 |
| 08:35:00 AM | 0 | 6 | 0 | 0 | 0 | 3 | 5 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66 | 414 |
| 08:40:00 AM | 0 | 5 | 0 | 0 | 0 | 12 | 3 | 0 | 2 | 2 | 1 | 0 | 6 | 1 | 0 | 0 | 0 | 67 | 415 |
| 08:45:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 | 388 |
| 08:50:00 AM | 3 | 4 | 0 | 0 | 1 | 7 | 2 | 0 | 2 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 54 | 372 |
| 08:55:00 AM | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 3 | 3 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 39 | 353 |



KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224

| | |
|-------------------|--------------------------|
| N/S street | NE McDaniel Ln |
| E/W street | NE 18th St |
| City, State | McMinnville OR |
| Site Notes | |
| Location | 45.218443 - -123.181467 |
| Start Date | Thursday, March 22, 2018 |
| Start Time | 07:00:00 AM |
| Weather | |
| Study ID # | |
| Peak Hour Start | 07:30:00 AM |
| Peak 15 Min Start | 08:10:00 AM |
| PHF (15-Min Int) | 0.78 |



| Peak-Hour Volumes (PHV) | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|------|-------|-------|------------|------|-------|-------|-----------|-------|-------|-------|-----------|-------|-------|-------|----------|------|-------|-------|---------|------|-------|-------|
| Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Entering | | | | Leaving | | | |
| Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | NB | SB | EB | WB | NB | SB | EB | WB |
| 3 | 99 | 3 | 0 | 2 | 130 | 16 | 0 | 10 | 12 | 6 | 0 | 0 | 17 | 5 | 0 | 105 | 148 | 28 | 22 | 136 | 114 | 36 | 17 |
| Percent Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | | | |
| 0.0% | 4.0% | 66.7% | 0.0% | 0.0% | 2.3% | 0.0% | 0.0% | 10.0% | 25.0% | 0.0% | 0.0% | 0.0% | 23.5% | 20.0% | 0.0% | 5.7% | 2.0% | 14.3% | 22.7% | 2.2% | 5.3% | 11.1% | 29.4% |

| PHV - Bicycles | | | | | | | | | | | | | | | | PHV - Pedestrians | | | | | |
|----------------|------|-------|-------|------------|------|-------|-------|-----------|------|-------|-------|-----------|------|-------|-------|-------------------|----|----|----|----|-----|
| Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | in Crosswalk | | | | | |
| Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Sum | NB | SB | EB | WB | Sum |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 |

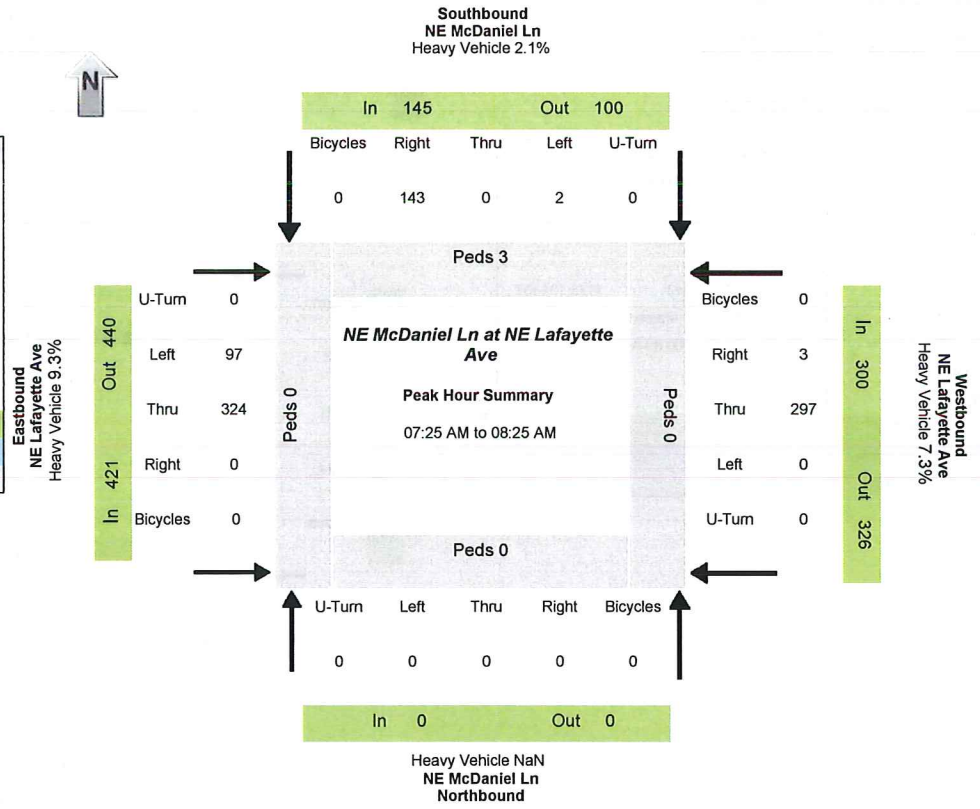
| Time | Northbound NE McDaniel Ln | | | | Southbound NE McDaniel Ln | | | | Eastbound NE 18th St | | | | Westbound NE 18th St | | | | 15 Min Sum | 1 HR Sum |
|-------------|------------------------------|------|-------|-------|------------------------------|------|-------|-------|-------------------------|------|-------|-------|-------------------------|------|-------|-------|---------------|-------------|
| | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | | |
| | 07:00:00 AM | 0 | 2 | 0 | 0 | 0 | 6 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | | |
| 07:05:00 AM | 0 | 4 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | | |
| 07:10:00 AM | 0 | 5 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 32 | |
| 07:15:00 AM | 0 | 6 | 1 | 0 | 1 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | |
| 07:20:00 AM | 1 | 5 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 34 | |
| 07:25:00 AM | 0 | 7 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 40 | |
| 07:30:00 AM | 0 | 4 | 0 | 0 | 1 | 8 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 41 | |
| 07:35:00 AM | 0 | 7 | 0 | 0 | 0 | 8 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 47 | |
| 07:40:00 AM | 1 | 8 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 49 | |
| 07:45:00 AM | 1 | 4 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 58 | |
| 07:50:00 AM | 0 | 5 | 0 | 0 | 0 | 13 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 64 | |
| 07:55:00 AM | 1 | 9 | 0 | 0 | 1 | 11 | 4 | 0 | 2 | 1 | 2 | 0 | 0 | 2 | 0 | 0 | 81 | 202 |
| 08:00:00 AM | 0 | 9 | 2 | 0 | 0 | 6 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 78 | 212 |
| 08:05:00 AM | 0 | 14 | 0 | 0 | 0 | 15 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 90 | 235 |
| 08:10:00 AM | 0 | 14 | 0 | 0 | 0 | 14 | 2 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 93 | 263 |
| 08:15:00 AM | 0 | 7 | 0 | 0 | 0 | 12 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 94 | 271 |
| 08:20:00 AM | 0 | 13 | 1 | 0 | 0 | 18 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 97 | 298 |
| 08:25:00 AM | 0 | 5 | 0 | 0 | 0 | 6 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 80 | 303 |
| 08:30:00 AM | 0 | 5 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 71 | 301 |
| 08:35:00 AM | 0 | 5 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 46 | 297 |
| 08:40:00 AM | 0 | 3 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 289 |
| 08:45:00 AM | 0 | 3 | 0 | 0 | 1 | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 35 | 278 |
| 08:50:00 AM | 0 | 6 | 0 | 0 | 1 | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 | 270 |
| 08:55:00 AM | 0 | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41 | 249 |



KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224

| | |
|-------------------|--------------------------|
| N/S street | NE McDaniel Ln |
| E/W street | NE Lafayette Ave |
| City, State | McMinnville OR |
| Site Notes | |
| Location | 45.218443 - -123.181467 |
| Start Date | Thursday, March 22, 2018 |
| Start Time | 07:00:00 AM |
| Weather | |
| Study ID # | |
| Peak Hour Start | 07:25:00 AM |
| Peak 15 Min Start | 07:45:00 AM |
| PHF (15-Min Int) | 0.87 |



| Peak-Hour Volumes (PHV) | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|------|-------|-------|------------|------|-------|-------|-----------|-------|-------|-------|-----------|------|-------|-------|----------|------|------|------|---------|------|------|-------|
| Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Entering | | | | Leaving | | | |
| Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | NB | SB | EB | WB | NB | SB | EB | WB |
| 0 | 0 | 0 | 0 | 2 | 0 | 143 | 0 | 97 | 324 | 0 | 0 | 0 | 297 | 3 | 0 | 0 | 145 | 421 | 300 | 0 | 100 | 440 | 326 |
| Percent Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | | | |
| 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 2.1% | 0.0% | 4.1% | 10.8% | 0.0% | 0.0% | 0.0% | 7.4% | 0.0% | 0.0% | NaN | 2.1% | 9.3% | 7.3% | NaN | 4.0% | 5.7% | 10.7% |

| PHV - Bicycles | | | | | | | | | | | | | | | | PHV - Pedestrians | | | | | |
|----------------|------|-------|-------|------------|------|-------|-------|-----------|------|-------|-------|-----------|------|-------|-------|-------------------|----|----|----|----|-----|
| Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | in Crosswalk | | | | | |
| Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Sum | NB | SB | EB | WB | Sum |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |

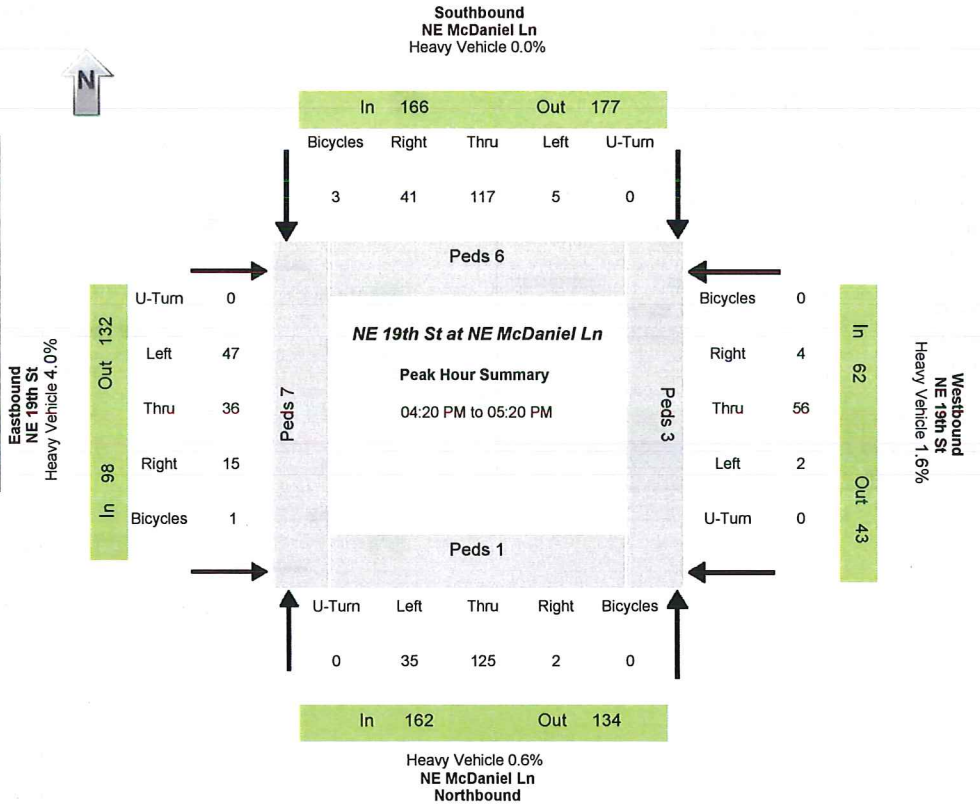
| Time | All Vehicle Volumes | | | | | | | | | | | | | | | | 15 Min Sum | 1 HR Sum |
|-------------|---------------------------|------|-------|-------|---------------------------|------|-------|-------|----------------------------|------|-------|-------|----------------------------|------|-------|-------|------------|----------|
| | Northbound NE McDaniel Ln | | | | Southbound NE McDaniel Ln | | | | Eastbound NE Lafayette Ave | | | | Westbound NE Lafayette Ave | | | | | |
| | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | | |
| 07:00:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 5 | 20 | 0 | 0 | 0 | 13 | 1 | 0 | 143 | |
| 07:05:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 19 | 0 | 0 | 0 | 19 | 1 | 0 | 146 | |
| 07:10:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 3 | 20 | 0 | 0 | 0 | 23 | 1 | 0 | 146 | |
| 07:15:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 6 | 0 | 6 | 12 | 0 | 0 | 0 | 23 | 0 | 0 | 161 | |
| 07:20:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 5 | 20 | 0 | 0 | 0 | 19 | 1 | 0 | 159 | |
| 07:25:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 7 | 26 | 0 | 0 | 0 | 26 | 0 | 0 | 176 | |
| 07:30:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 10 | 0 | 2 | 18 | 0 | 0 | 0 | 14 | 1 | 0 | 170 | |
| 07:35:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 7 | 20 | 0 | 0 | 0 | 27 | 0 | 0 | 201 | |
| 07:40:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 6 | 23 | 0 | 0 | 0 | 24 | 0 | 0 | 211 | |
| 07:45:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 3 | 27 | 0 | 0 | 0 | 30 | 0 | 0 | 248 | 722 |
| 07:50:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 11 | 34 | 0 | 0 | 0 | 37 | 0 | 0 | 239 | 745 |
| 07:55:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 7 | 0 | 9 | 29 | 0 | 0 | 0 | 22 | 0 | 0 | 243 | 776 |
| 08:00:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 15 | 32 | 0 | 0 | 0 | 14 | 0 | 0 | 215 | 794 |
| 08:05:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 10 | 20 | 0 | 0 | 0 | 27 | 1 | 0 | 227 | 826 |
| 08:10:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 9 | 33 | 0 | 0 | 0 | 22 | 0 | 0 | 236 | 866 |
| 08:15:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 11 | 26 | 0 | 0 | 0 | 30 | 1 | 0 | 229 | 862 |
| 08:20:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 5 | 19 | 0 | 0 | 0 | 30 | 0 | 0 | 197 | 864 |
| 08:25:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 5 | 18 | 0 | 0 | 0 | 21 | 0 | 0 | 167 | 857 |
| 08:30:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 7 | 25 | 0 | 0 | 0 | 20 | 0 | 0 | 133 | 825 |
| 08:35:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 14 | 0 | 0 | 0 | 8 | 1 | 0 | 146 | 809 |
| 08:40:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 3 | 23 | 0 | 0 | 0 | 27 | 0 | 0 | 159 | 805 |
| 08:45:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 6 | 0 | 3 | 31 | 1 | 0 | 0 | 24 | 4 | 0 | 189 | 766 |
| 08:50:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 8 | 19 | 0 | 0 | 0 | 25 | 0 | 0 | | |
| 08:55:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 8 | 19 | 0 | 0 | 0 | 25 | 0 | 0 | | |

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224

| | |
|-------------------|---------------------------|
| N/S street | NE McDaniel Ln |
| E/W street | NE 19th St |
| City, State | McMinnville OR |
| Site Notes | |
| Location | 45.218443 - -123.181467 |
| Start Date | Wednesday, March 21, 2018 |
| Start Time | 04:00:00 PM |
| Weather | |
| Study ID # | |
| Peak Hour Start | 04:20:00 PM |
| Peak 15 Min Start | 04:30:00 PM |
| PHF (15-Min Int) | 0.87 |



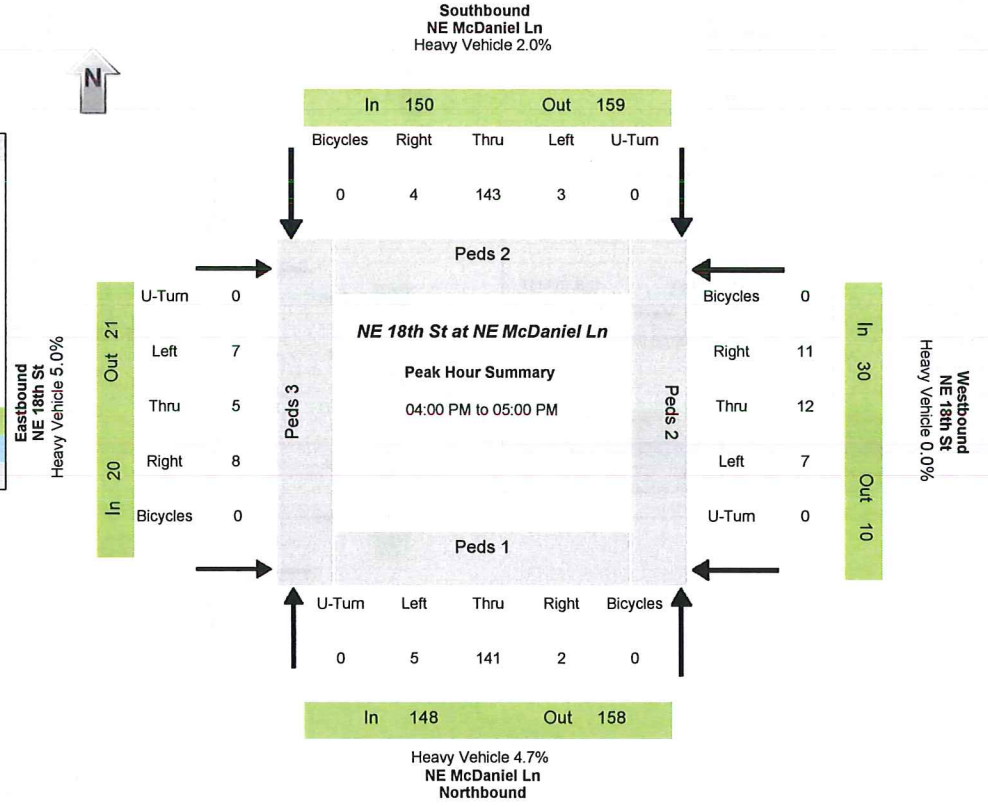
| Peak-Hour Volumes (PHV) | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|------|-------|-------|------------|------|-------|-------|-----------|------|-------|-------|-----------|------|-------|-------|----------|------|------|------|---------|------|------|------|
| Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Entering | | | | Leaving | | | |
| Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | NB | SB | EB | WB | NB | SB | EB | WB |
| 35 | 125 | 2 | 0 | 5 | 117 | 41 | 0 | 47 | 36 | 15 | 0 | 2 | 56 | 4 | 0 | 162 | 163 | 98 | 62 | 134 | 176 | 132 | 43 |
| Percent Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | | | |
| 2.9% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 2.1% | 8.3% | 0.0% | 0.0% | 0.0% | 1.8% | 0.0% | 0.0% | 0.6% | 0.0% | 4.1% | 1.6% | 0.0% | 0.6% | 1.5% | 7.0% |

| PHV - Bicycles | | | | | | | | | | | | | | PHV - Pedestrians | | | | | | | |
|----------------|------|-------|-------|------------|------|-------|-------|-----------|------|-------|-------|-----------|------|-------------------|-------|-----|--------------|----|----|----|-----|
| Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Sum | in Crosswalk | | | | Sum |
| Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | | NB | SB | EB | WB | |
| 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 6 | 7 | 3 | 17 |

| Time | Northbound NE McDaniel Ln | | | | Southbound NE McDaniel Ln | | | | Eastbound NE 19th St | | | | Westbound NE 19th St | | | | 15 Min Sum | 1 HR Sum | |
|-------------|------------------------------|------|-------|-------|------------------------------|------|-------|-------|-------------------------|------|-------|-------|-------------------------|------|-------|-------|------------------|-------------|-----|
| | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | | | |
| 04:00:00 PM | 4 | 8 | 0 | 0 | 0 | 11 | 3 | 0 | 3 | 2 | 3 | 0 | 0 | 2 | 2 | 0 | 0 | | |
| 04:05:00 PM | 8 | 9 | 0 | 0 | 0 | 7 | 2 | 0 | 4 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | | |
| 04:10:00 PM | 2 | 5 | 0 | 0 | 0 | 12 | 2 | 0 | 1 | 1 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 99 | |
| 04:15:00 PM | 1 | 10 | 1 | 0 | 0 | 13 | 4 | 0 | 3 | 3 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 100 | |
| 04:20:00 PM | 4 | 10 | 0 | 0 | 0 | 7 | 4 | 0 | 6 | 3 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 107 | |
| 04:25:00 PM | 2 | 9 | 1 | 0 | 0 | 6 | 1 | 0 | 3 | 5 | 0 | 0 | 0 | 5 | 1 | 0 | 0 | 111 | |
| 04:30:00 PM | 5 | 13 | 0 | 0 | 1 | 11 | 4 | 0 | 2 | 4 | 2 | 0 | 0 | 7 | 1 | 0 | 0 | 123 | |
| 04:35:00 PM | 2 | 9 | 1 | 0 | 1 | 14 | 5 | 0 | 4 | 5 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 130 | |
| 04:40:00 PM | 3 | 13 | 0 | 0 | 0 | 14 | 5 | 0 | 2 | 1 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 140 | |
| 04:45:00 PM | 2 | 13 | 0 | 0 | 1 | 5 | 2 | 0 | 4 | 3 | 4 | 0 | 0 | 3 | 0 | 0 | 0 | 127 | |
| 04:50:00 PM | 2 | 8 | 0 | 0 | 0 | 19 | 4 | 0 | 6 | 1 | 3 | 0 | 0 | 2 | 0 | 0 | 0 | 126 | |
| 04:55:00 PM | 5 | 9 | 0 | 0 | 1 | 6 | 4 | 0 | 2 | 3 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 117 | 467 |
| 05:00:00 PM | 4 | 7 | 0 | 0 | 0 | 8 | 0 | 0 | 2 | 2 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 105 | 455 |
| 05:05:00 PM | 0 | 15 | 0 | 0 | 0 | 9 | 4 | 0 | 4 | 3 | 2 | 0 | 0 | 14 | 0 | 0 | 0 | 111 | 474 |
| 05:10:00 PM | 2 | 5 | 0 | 0 | 0 | 11 | 5 | 0 | 7 | 4 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 116 | 484 |
| 05:15:00 PM | 4 | 14 | 0 | 0 | 1 | 7 | 3 | 0 | 5 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 130 | 485 |
| 05:20:00 PM | 2 | 6 | 0 | 0 | 0 | 9 | 1 | 0 | 4 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 105 | 472 |
| 05:25:00 PM | 2 | 11 | 0 | 0 | 1 | 7 | 2 | 0 | 2 | 3 | 4 | 0 | 0 | 1 | 1 | 0 | 0 | 100 | 473 |
| 05:30:00 PM | 1 | 5 | 0 | 0 | 1 | 12 | 3 | 0 | 1 | 1 | 2 | 0 | 0 | 4 | 2 | 0 | 0 | 92 | 454 |
| 05:35:00 PM | 2 | 7 | 0 | 0 | 1 | 7 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 91 | 433 |
| 05:40:00 PM | 0 | 5 | 0 | 0 | 2 | 11 | 3 | 0 | 3 | 2 | 2 | 0 | 0 | 7 | 0 | 0 | 0 | 92 | 425 |
| 05:45:00 PM | 1 | 8 | 0 | 0 | 2 | 8 | 3 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 86 | 413 |
| 05:50:00 PM | 4 | 5 | 0 | 0 | 0 | 6 | 4 | 0 | 5 | 1 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 91 | 398 |
| 05:55:00 PM | 5 | 6 | 0 | 0 | 1 | 4 | 2 | 0 | 6 | 1 | 4 | 0 | 0 | 1 | 2 | 0 | 0 | 88 | 396 |

Data Provided by K-D-N.com 503-594-4224

| | |
|-------------------|---------------------------|
| N/S street | NE McDaniel Ln |
| E/W street | NE 18th St |
| City, State | McMinnville OR |
| Site Notes | |
| Location | 45.218443 - -123.181467 |
| Start Date | Wednesday, March 21, 2018 |
| Start Time | 04:00:00 PM |
| Weather | |
| Study ID # | |
| Peak Hour Start | 04:00:00 PM |
| Peak 15 Min Start | 04:40:00 PM |
| PHF (15-Min Int) | 0.84 |



| Peak-Hour Volumes (PHV) | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|------|-------|-------|------------|------|-------|-------|-----------|------|-------|-------|-----------|------|-------|-------|----------|------|------|------|---------|------|------|------|
| Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Entering | | | | Leaving | | | |
| Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | NB | SB | EB | WB | NB | SB | EB | WB |
| 5 | 141 | 2 | 0 | 3 | 143 | 4 | 0 | 7 | 5 | 8 | 0 | 7 | 12 | 11 | 0 | 148 | 150 | 20 | 30 | 158 | 159 | 21 | 10 |
| Percent Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | | | |
| 0.0% | 5.0% | 0.0% | 0.0% | 0.0% | 2.1% | 0.0% | 0.0% | 14.3% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 4.7% | 2.0% | 5.0% | 0.0% | 1.9% | 5.0% | 0.0% | 0.0% |

| PHV - Bicycles | | | | | | | | | | | | PHV - Pedestrians | | | | | | | | | |
|----------------|------|-------|-------|------------|------|-------|-------|-----------|------|-------|-------|-------------------|------|-------|-------|--------------|----|----|----|----|-----|
| Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | in Crosswalk | | | | | |
| Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Sum | NB | SB | EB | WB | Sum |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 2 | 8 |

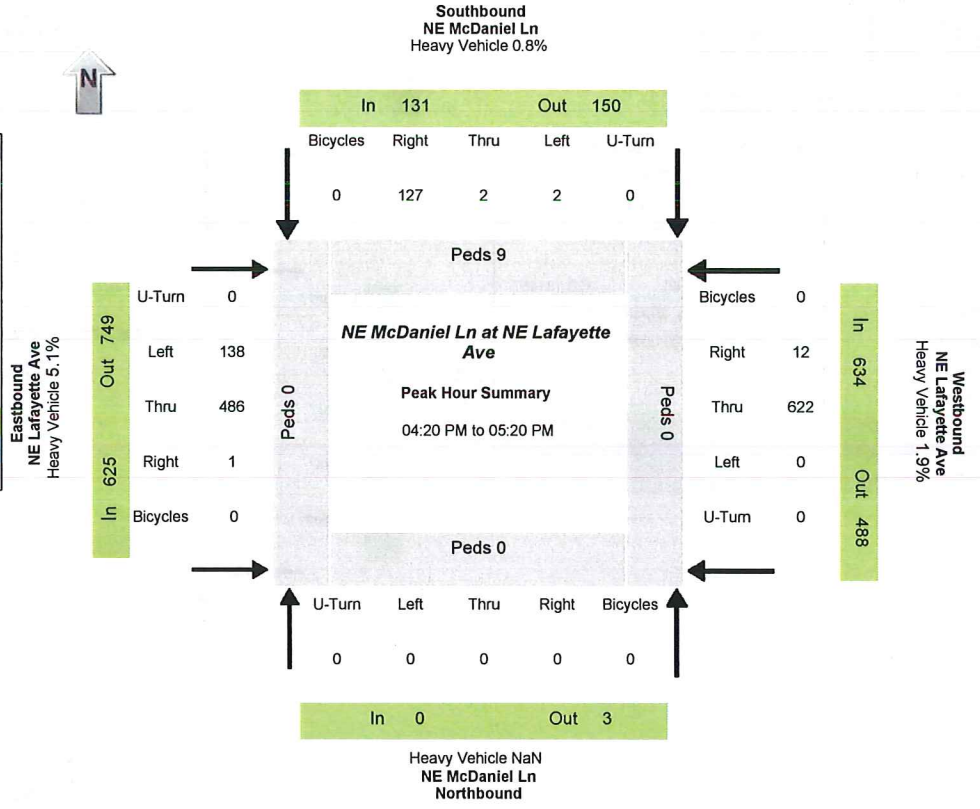
| Time | Northbound NE McDaniel Ln | | | | Southbound NE McDaniel Ln | | | | Eastbound NE 18th St | | | | Westbound NE 18th St | | | | 15 Min Sum | 1 HR Sum |
|-------------|---------------------------|------|-------|-------|---------------------------|------|-------|-------|----------------------|------|-------|-------|----------------------|------|-------|-------|------------|----------|
| | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | | |
| 04:00:00 PM | 0 | 11 | 0 | 0 | 0 | 15 | 0 | 0 | 2 | 2 | 1 | 0 | 1 | 4 | 0 | 0 | | |
| 04:05:00 PM | 0 | 12 | 0 | 0 | 0 | 7 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | | |
| 04:10:00 PM | 2 | 7 | 0 | 0 | 0 | 16 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 86 | |
| 04:15:00 PM | 0 | 10 | 1 | 0 | 2 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 78 | |
| 04:20:00 PM | 1 | 13 | 0 | 0 | 0 | 9 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 1 | 1 | 0 | 83 | |
| 04:25:00 PM | 0 | 10 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 71 | |
| 04:30:00 PM | 0 | 18 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 78 | |
| 04:35:00 PM | 0 | 9 | 0 | 0 | 0 | 15 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 78 | |
| 04:40:00 PM | 1 | 15 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 1 | 2 | 0 | 1 | 2 | 1 | 0 | 99 | |
| 04:45:00 PM | 0 | 13 | 0 | 0 | 1 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 94 | |
| 04:50:00 PM | 1 | 8 | 1 | 0 | 0 | 18 | 4 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 2 | 0 | 104 | |
| 04:55:00 PM | 0 | 15 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 92 | 348 |
| 05:00:00 PM | 0 | 8 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 84 | 334 |
| 05:05:00 PM | 1 | 12 | 0 | 0 | 0 | 9 | 2 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 75 | 340 |
| 05:10:00 PM | 0 | 7 | 0 | 0 | 1 | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 3 | 0 | 73 | 335 |
| 05:15:00 PM | 1 | 17 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 76 | 332 |
| 05:20:00 PM | 0 | 9 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 69 | 326 |
| 05:25:00 PM | 1 | 9 | 0 | 0 | 1 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 72 | 336 |
| 05:30:00 PM | 0 | 5 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 67 | 321 |
| 05:35:00 PM | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 63 | 311 |
| 05:40:00 PM | 1 | 5 | 0 | 0 | 1 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 55 | 292 |
| 05:45:00 PM | 0 | 8 | 0 | 0 | 0 | 12 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 59 | 286 |
| 05:50:00 PM | 0 | 10 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 58 | 265 |
| 05:55:00 PM | 0 | 10 | 0 | 0 | 0 | 6 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 63 | 263 |



KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224

| | |
|-------------------|---------------------------|
| N/S street | NE McDaniel Ln |
| E/W street | NE Lafayette Ave |
| City, State | McMinnville OR |
| Site Notes | |
| Location | 45.218443 - -123.181467 |
| Start Date | Wednesday, March 21, 2018 |
| Start Time | 04:00:00 PM |
| Weather | |
| Study ID # | |
| Peak Hour Start | 04:20:00 PM |
| Peak 15 Min Start | 04:30:00 PM |
| PHF (15-Min Int) | 0.90 |



| Peak-Hour Volumes (PHV) | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|------|-------|-------|------------|------|-------|-------|-----------|------|-------|-------|-----------|------|-------|-------|----------|------|------|------|---------|------|------|------|
| Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Entering | | | | Leaving | | | |
| Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | NB | SB | EB | WB | NB | SB | EB | WB |
| 0 | 0 | 0 | 0 | 2 | 2 | 127 | 0 | 138 | 486 | 1 | 0 | 0 | 622 | 12 | 0 | 0 | 131 | 625 | 634 | 3 | 150 | 749 | 488 |
| Percent Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | | | |
| 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.8% | 0.0% | 3.6% | 5.6% | 0.0% | 0.0% | 0.0% | 1.9% | 0.0% | 0.0% | NaN | 0.8% | 5.1% | 1.9% | 0.0% | 3.3% | 1.7% | 5.5% |

| PHV - Bicycles | | | | | | | | | | | | | | | | PHV - Pedestrians | | | | | |
|----------------|------|-------|-------|------------|------|-------|-------|-----------|------|-------|-------|-----------|------|-------|-------|-------------------|----|----|----|----|-----|
| Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | in Crosswalk | | | | | |
| Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Sum | NB | SB | EB | WB | Sum |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 9 |

| Time | Northbound NE McDaniel Ln | | | | Southbound NE McDaniel Ln | | | | Eastbound NE Lafayette Ave | | | | Westbound NE Lafayette Ave | | | | 15 Min Sum | 1 HR Sum |
|-------------|---------------------------|------|-------|-------|---------------------------|------|-------|-------|----------------------------|------|-------|-------|----------------------------|------|-------|-------|------------|----------|
| | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | Left | Thru | Right | Uturn | | |
| 04:00:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 7 | 19 | 0 | 0 | 1 | 45 | 0 | 0 | | |
| 04:05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 12 | 32 | 0 | 0 | 0 | 40 | 1 | 0 | | |
| 04:10:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 12 | 44 | 0 | 0 | 0 | 37 | 1 | 0 | 283 | |
| 04:15:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 11 | 36 | 0 | 0 | 0 | 40 | 0 | 0 | 295 | |
| 04:20:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 12 | 37 | 0 | 0 | 0 | 45 | 1 | 0 | 314 | |
| 04:25:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 10 | 44 | 0 | 0 | 0 | 51 | 1 | 0 | 317 | |
| 04:30:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 13 | 0 | 15 | 42 | 0 | 0 | 0 | 55 | 0 | 0 | 346 | |
| 04:35:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 12 | 40 | 0 | 0 | 0 | 65 | 0 | 0 | 368 | |
| 04:40:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 10 | 50 | 0 | 0 | 0 | 56 | 2 | 0 | 387 | |
| 04:45:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 8 | 0 | 16 | 34 | 0 | 0 | 0 | 57 | 1 | 0 | 378 | |
| 04:50:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 7 | 35 | 0 | 0 | 0 | 49 | 1 | 0 | 355 | |
| 04:55:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 16 | 39 | 0 | 0 | 0 | 60 | 1 | 0 | 353 | 1340 |
| 05:00:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 11 | 0 | 12 | 24 | 1 | 0 | 0 | 39 | 0 | 0 | 324 | 1343 |
| 05:05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 8 | 51 | 0 | 0 | 0 | 53 | 1 | 0 | 336 | 1373 |
| 05:10:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 8 | 0 | 5 | 43 | 0 | 0 | 0 | 45 | 1 | 0 | 312 | 1369 |
| 05:15:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 15 | 47 | 0 | 0 | 0 | 47 | 3 | 0 | 342 | 1390 |
| 05:20:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 9 | 36 | 0 | 0 | 0 | 41 | 0 | 0 | 319 | 1378 |
| 05:25:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 8 | 0 | 9 | 34 | 0 | 0 | 0 | 28 | 2 | 0 | 298 | 1350 |
| 05:30:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 4 | 28 | 0 | 0 | 0 | 46 | 1 | 0 | 273 | 1317 |
| 05:35:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 5 | 27 | 0 | 0 | 0 | 40 | 1 | 0 | 255 | 1265 |
| 05:40:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 8 | 31 | 0 | 0 | 0 | 29 | 2 | 0 | 251 | 1214 |
| 05:45:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 8 | 34 | 0 | 0 | 0 | 39 | 1 | 0 | 252 | 1191 |
| 05:50:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 13 | 36 | 0 | 0 | 0 | 31 | 0 | 0 | 260 | 1170 |
| 05:55:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 10 | 45 | 0 | 0 | 0 | 34 | 1 | 0 | 278 | 1139 |

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
 CRASH SUMMARIES BY YEAR BY COLLISION TYPE

McDaniel Ln & 17th St
 January 1, 2011 through December 31, 2015

| COLLISION TYPE | FATAL CRASHES | NON- FATAL CRASHES | PROPERTY DAMAGE ONLY | TOTAL CRASHES | PEOPLE KILLED | PEOPLE INJURED | TRUCKS | DRY SURF | WET SURF | DAY | DARK | INTER- SECTION RELATED | INTER- SECTION ROAD | OFF- ROAD |
|----------------|------------------|--------------------------|----------------------------|------------------|------------------|-------------------|--------|-------------|-------------|-----|------|------------------------------|---------------------------|--------------|
| TOTAL | | | | | | | | | | | | | | |
| FINAL TOTAL | | | | | | | | | | | | | | |

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
 CRASH SUMMARIES BY YEAR BY COLLISION TYPE

McDaniel Ln & 18th St
 January 1, 2011 through December 31, 2015

| COLLISION TYPE | FATAL CRASHES | | NON-PROPERTY DAMAGE ONLY | | TOTAL CRASHES | | TOTAL PEOPLE | | PEOPLE INJURED | | TRUCKS | | DRY SURF | | WET SURF | | DAY | | DARK | | INTER-SECTION RELATED | | OFF-ROAD | |
|----------------|---------------|-------------------|--------------------------|----------------------|---------------|----------------------|--------------|---------|----------------|---------|--------|----------|----------|-----|----------|-----------------------|----------|---|------|---|-----------------------|---|----------|---|
| | FATAL CRASHES | NON-FATAL CRASHES | FATAL CRASHES | PROPERTY DAMAGE ONLY | FATAL CRASHES | PROPERTY DAMAGE ONLY | KILLED | INJURED | KILLED | INJURED | TRUCKS | DRY SURF | WET SURF | DAY | DARK | INTER-SECTION RELATED | OFF-ROAD | | | | | | | |
| YEAR: 2015 | 0 | 1 | 1 | 1 | 2 | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 1 | 1 | 1 | 2 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 |
| ANGLE | 0 | 1 | 1 | 1 | 2 | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 1 | 1 | 1 | 2 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 |
| 2015 TOTAL | 0 | 1 | 1 | 1 | 2 | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 1 | 1 | 1 | 2 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 |
| YEAR: 2011 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| REAR-END | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| 2011 TOTAL | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| FINAL TOTAL | 0 | 1 | 2 | 2 | 3 | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 1 | 2 | 2 | 3 | 0 | 1 | 2 | 3 | 0 | 0 | 0 | 0 |

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
 CRASH SUMMARIES BY YEAR BY COLLISION TYPE

McDaniel Ln & 19th St
 January 1, 2011 through December 31, 2015

| COLLISION TYPE | FATAL CRASHES | NON-FATAL CRASHES | PROPERTY DAMAGE ONLY | TOTAL CRASHES | PEOPLE KILLED | PEOPLE INJURED | TRUCKS | DRY SURF | WET SURF | DAY | DARK | INTER-SECTION RELATED | INTER-SECTION RELATED ROAD | OFF-ROAD |
|----------------|---------------|-------------------|----------------------|---------------|---------------|----------------|--------|----------|----------|-----|------|-----------------------|----------------------------|----------|
| YEAR: 2015 | | | | | | | | | | | | | | |
| ANGLE | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| 2015 TOTAL | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| YEAR: 2013 | | | | | | | | | | | | | | |
| REAR-END | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| 2013 TOTAL | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| YEAR: 2012 | | | | | | | | | | | | | | |
| ANGLE | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| 2012 TOTAL | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| FINAL TOTAL | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 2 | 1 | 2 | 1 | 3 | 0 | 1 |

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

McDaniel Ln & Lafayette Ave
 January 1, 2011 through December 31, 2015

| COLLISION TYPE | FATAL CRASHES | | NON-PROPERTY DAMAGE ONLY | | TOTAL CRASHES | | TOTAL PEOPLE KILLED | | TOTAL PEOPLE INJURED | | TRUCKS | | DRY SURF | | WET SURF | | DAY | | DARK | | INTER-SECTION RELATED | | OFF-ROAD | |
|-------------------|---------------|-------------------|--------------------------|----------------------|---------------|---------------|---------------------|--------|----------------------|----------|--------|------|-----------------------|----------|----------|---|-----|---|------|---|-----------------------|---|----------|---|
| | FATAL CRASHES | NON-FATAL CRASHES | FATAL CRASHES | PROPERTY DAMAGE ONLY | TOTAL CRASHES | PEOPLE KILLED | PEOPLE INJURED | TRUCKS | DRY SURF | WET SURF | DAY | DARK | INTER-SECTION RELATED | OFF-ROAD | | | | | | | | | | |
| YEAR: 2014 | | | | | | | | | | | | | | | | | | | | | | | | |
| ANGLE | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| REAR-END | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2014 TOTAL | 0 | 1 | 1 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YEAR: 2013 | | | | | | | | | | | | | | | | | | | | | | | | |
| REAR-END | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2013 TOTAL | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YEAR: 2011 | | | | | | | | | | | | | | | | | | | | | | | | |
| REAR-END | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TURNING MOVEMENTS | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 1 | 2 | 0 | 1 | 1 | 1 | 2 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2011 TOTAL | 0 | 1 | 2 | 2 | 3 | 0 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FINAL TOTAL | 0 | 2 | 4 | 4 | 6 | 0 | 2 | 2 | 4 | 2 | 4 | 2 | 2 | 6 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

18-378 - 17th at McDaniels Apts TIA

Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro
 Report File: J:\...\18-379 AM Existing.pdf

Scenario 1 AM Existing
 4/3/2018

Intersection Analysis Summary

| ID | Intersection Name | Control Type | Method | Worst Mvmt | V/C | Delay (s/veh) | LOS |
|----|-----------------------|--------------|-----------------|------------|-------|---------------|-----|
| 1 | McDaniel at 19th St | All-way stop | HCM 6th Edition | SB Thru | 0.274 | 9.0 | A |
| 2 | McDaniel at 18th St | Two-way stop | HCM 6th Edition | EB Thru | 0.026 | 11.5 | B |
| 3 | McDaniel at 17th St | Two-way stop | HCM 6th Edition | EB Left | 0.018 | 10.6 | B |
| 4 | McDaniel at Lafayette | Two-way stop | HCM 6th Edition | SEB Left | 0.005 | 15.1 | C |

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. for all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: McDaniel at 19th St

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | All-way stop | Delay (sec / veh): | 9.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.274 |

Intersection Setup

| Name | McDaniel St | | | McDaniel St | | | 19th St | | | 19th St | | |
|------------------------|-------------|--------|--------|-------------|--------|--------|-----------|--------|--------|-----------|--------|--------|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | + | | | + | | | + | | | + | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 25.00 | | | 25.00 | | | 25.00 | | | 25.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

Volumes

| Name | McDaniel St | | | McDaniel St | | | 19th St | | | 19th St | | |
|---|-------------|--------|--------|-------------|--------|--------|---------|--------|--------|---------|--------|--------|
| Base Volume Input [veh/h] | 42 | 68 | 2 | 4 | 109 | 53 | 43 | 29 | 38 | 1 | 31 | 2 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 |
| Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 42 | 68 | 2 | 4 | 109 | 53 | 43 | 29 | 38 | 1 | 31 | 2 |
| Peak Hour Factor | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 14 | 23 | 1 | 1 | 36 | 18 | 14 | 10 | 13 | 0 | 10 | 1 |
| Total Analysis Volume [veh/h] | 56 | 91 | 3 | 5 | 145 | 71 | 57 | 39 | 51 | 1 | 41 | 3 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

Intersection Settings

Lanes

| | | | | |
|---------------------------------|------|------|------|------|
| Capacity per Entry Lane [veh/h] | 751 | 806 | 751 | 716 |
| Degree of Utilization, x | 0.20 | 0.27 | 0.20 | 0.06 |

Movement, Approach, & Intersection Results

| | | | | |
|------------------------------------|-------|-------|-------|------|
| 95th-Percentile Queue Length [veh] | 0.74 | 1.12 | 0.72 | 0.20 |
| 95th-Percentile Queue Length [ft] | 18.52 | 27.92 | 18.07 | 5.02 |
| Approach Delay [s/veh] | 8.98 | 9.15 | 8.95 | 8.37 |
| Approach LOS | A | A | A | A |
| Intersection Delay [s/veh] | 8.99 | | | |
| Intersection LOS | A | | | |

Intersection Level Of Service Report
Intersection 2: McDaniel at 18th St

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | Two-way stop | Delay (sec / veh): | 11.5 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.026 |

Intersection Setup

| Name | McDaniel St | | | McDaniel St | | | 18th St | | | 18th St | | |
|------------------------|-------------|--------|--------|-------------|--------|--------|-----------|--------|--------|-----------|--------|--------|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | + | | | + | | | + | | | + | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 25.00 | | | 25.00 | | | 25.00 | | | 25.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

Volumes

| Name | McDaniel St | | | McDaniel St | | | 18th St | | | 18th St | | |
|---|-------------|--------|--------|-------------|--------|--------|---------|--------|--------|---------|--------|--------|
| Base Volume Input [veh/h] | 3 | 99 | 3 | 2 | 130 | 16 | 10 | 12 | 6 | 0 | 17 | 5 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 |
| Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 3 | 99 | 3 | 2 | 130 | 16 | 10 | 12 | 6 | 0 | 17 | 5 |
| Peak Hour Factor | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 1 | 32 | 1 | 1 | 42 | 5 | 3 | 4 | 2 | 0 | 5 | 2 |
| Total Analysis Volume [veh/h] | 4 | 127 | 4 | 3 | 167 | 21 | 13 | 15 | 8 | 0 | 22 | 6 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

Intersection Settings

| | | | | |
|------------------------------------|------|------|------|------|
| Priority Scheme | Free | Free | Stop | Stop |
| Flared Lane | | | No | No |
| Storage Area [veh] | 0 | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 | 0 |

Movement, Approach, & Intersection Results

| | | | | | | | | | | | | |
|------------------------------------|------|------|------|-------|-------|-------|-------|-------|------|-------|-------|------|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.03 | 0.01 | 0.00 | 0.04 | 0.01 |
| d_M, Delay for Movement [s/veh] | 7.65 | 0.00 | 0.00 | 7.52 | 0.00 | 0.00 | 11.47 | 11.50 | 9.55 | 11.33 | 11.49 | 9.22 |
| Movement LOS | A | A | A | A | A | A | B | B | A | B | B | A |
| 95th-Percentile Queue Length [veh] | 0.33 | 0.33 | 0.33 | 0.46 | 0.46 | 0.46 | 0.18 | 0.18 | 0.18 | 0.14 | 0.14 | 0.14 |
| 95th-Percentile Queue Length [ft] | 8.23 | 8.23 | 8.23 | 11.52 | 11.52 | 11.52 | 4.53 | 4.53 | 4.53 | 3.49 | 3.49 | 3.49 |
| d_A, Approach Delay [s/veh] | 0.23 | | | 0.12 | | | 11.06 | | | 11.00 | | |
| Approach LOS | A | | | A | | | B | | | B | | |
| d_I, Intersection Delay [s/veh] | 1.95 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |

Intersection Level Of Service Report
Intersection 3: McDaniel at 17th St

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | Two-way stop | Delay (sec / veh): | 10.6 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.018 |

Intersection Setup

| Name | McDaniel St | | McDaniel St | | 17th St | |
|------------------------|-------------|--------|-------------|--------|-----------|--------|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration | ←↑ | | ↑→ | | ←↑ | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | Yes | | Yes | |

Volumes

| Name | McDaniel St | | McDaniel St | | 17th St | |
|---|-------------|--------|-------------|--------|---------|--------|
| Base Volume Input [veh/h] | 4 | 98 | 127 | 7 | 9 | 13 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 3.86 | 3.86 | 3.86 | 3.86 | 3.86 | 3.86 |
| Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 4 | 98 | 127 | 7 | 9 | 13 |
| Peak Hour Factor | 0.7400 | 0.7400 | 0.7400 | 0.7400 | 0.7400 | 0.7400 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 1 | 33 | 43 | 2 | 3 | 4 |
| Total Analysis Volume [veh/h] | 5 | 132 | 172 | 9 | 12 | 18 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

Intersection Settings

| | | | |
|------------------------------------|------|------|------|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

Movement, Approach, & Intersection Results

| | | | | | | |
|------------------------------------|------|------|------|------|-------|------|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.02 |
| d_M, Delay for Movement [s/veh] | 7.61 | 0.00 | 0.00 | 0.00 | 10.57 | 9.37 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh] | 0.33 | 0.33 | 0.00 | 0.00 | 0.12 | 0.12 |
| 95th-Percentile Queue Length [ft] | 8.23 | 8.23 | 0.00 | 0.00 | 3.03 | 3.03 |
| d_A, Approach Delay [s/veh] | 0.28 | | 0.00 | | 9.85 | |
| Approach LOS | A | | A | | A | |
| d_I, Intersection Delay [s/veh] | 0.96 | | | | | |
| Intersection LOS | B | | | | | |

Intersection Level Of Service Report
Intersection 4: McDaniel at Lafayette

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | Two-way stop | Delay (sec / veh): | 15.1 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.005 |

Intersection Setup

| Name | Lafayette Ave | | Lafayette Ave | | McDaniel St | |
|------------------------|----------------|--------|----------------|--------|----------------|--------|
| Approach | Northeastbound | | Southwestbound | | Southeastbound | |
| Lane Configuration | ↶ ↑ | | ↑ ↷ | | ↶ ↷ | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | Yes | | Yes | |

Volumes

| Name | Lafayette Ave | | Lafayette Ave | | McDaniel St | |
|---|---------------|--------|---------------|--------|-------------|--------|
| Base Volume Input [veh/h] | 97 | 324 | 297 | 3 | 2 | 143 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 7.37 | 7.37 | 7.37 | 7.37 | 7.37 | 7.37 |
| Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 97 | 324 | 297 | 3 | 2 | 143 |
| Peak Hour Factor | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 28 | 93 | 85 | 1 | 1 | 41 |
| Total Analysis Volume [veh/h] | 111 | 372 | 341 | 3 | 2 | 164 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

Intersection Settings

| | | | |
|------------------------------------|------|------|------|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | Yes |
| Storage Area [veh] | 0 | 0 | 2 |
| Two-Stage Gap Acceptance | | | Yes |
| Number of Storage Spaces in Median | 0 | 0 | 2 |

Movement, Approach, & Intersection Results

| | | | | | | |
|------------------------------------|------|------|------|------|-------|-------|
| V/C, Movement V/C Ratio | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.24 |
| d_M, Delay for Movement [s/veh] | 8.35 | 0.00 | 0.00 | 0.00 | 15.08 | 11.84 |
| Movement LOS | A | A | A | A | C | B |
| 95th-Percentile Queue Length [veh] | 0.31 | 0.00 | 0.00 | 0.00 | 0.93 | 0.93 |
| 95th-Percentile Queue Length [ft] | 7.73 | 0.00 | 0.00 | 0.00 | 23.15 | 23.15 |
| d_A, Approach Delay [s/veh] | 1.92 | | 0.00 | | 11.88 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 2.92 | | | | | |
| Intersection LOS | C | | | | | |

18-378 - 17th at McDaniels Apts TIA

Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro
Report File: J:\...\18-379 AM Existing.pdf

Scenario 1 AM Existing
4/3/2018

Turning Movement Volume: Summary

| ID | Intersection Name | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume |
|----|---------------------|------------|------|-------|------------|------|-------|-----------|------|-------|-----------|------|-------|--------------|
| | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 1 | McDaniel at 19th St | 42 | 68 | 2 | 4 | 109 | 53 | 43 | 29 | 38 | 1 | 31 | 2 | 422 |

| ID | Intersection Name | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume |
|----|---------------------|------------|------|-------|------------|------|-------|-----------|------|-------|-----------|------|-------|--------------|
| | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 2 | McDaniel at 18th St | 3 | 99 | 3 | 2 | 130 | 16 | 10 | 12 | 6 | 0 | 17 | 5 | 303 |

| ID | Intersection Name | Northbound | | Southbound | | Eastbound | | Total Volume |
|----|---------------------|------------|------|------------|-------|-----------|-------|--------------|
| | | Left | Thru | Thru | Right | Left | Right | |
| 3 | McDaniel at 17th St | 4 | 98 | 127 | 7 | 9 | 13 | 258 |

| ID | Intersection Name | Northeastbound | | Southwestbound | | Southeastbound | | Total Volume |
|----|-----------------------|----------------|------|----------------|-------|----------------|-------|--------------|
| | | Left | Thru | Thru | Right | Left | Right | |
| 4 | McDaniel at Lafayette | 97 | 324 | 297 | 3 | 2 | 143 | 866 |

18-378 - 17th at McDaniels Apts TIA

Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro

Scenario 1 AM Existing

Report File: J:\...\18-379 AM Existing.pdf

4/3/2018

Turning Movement Volume: Detail

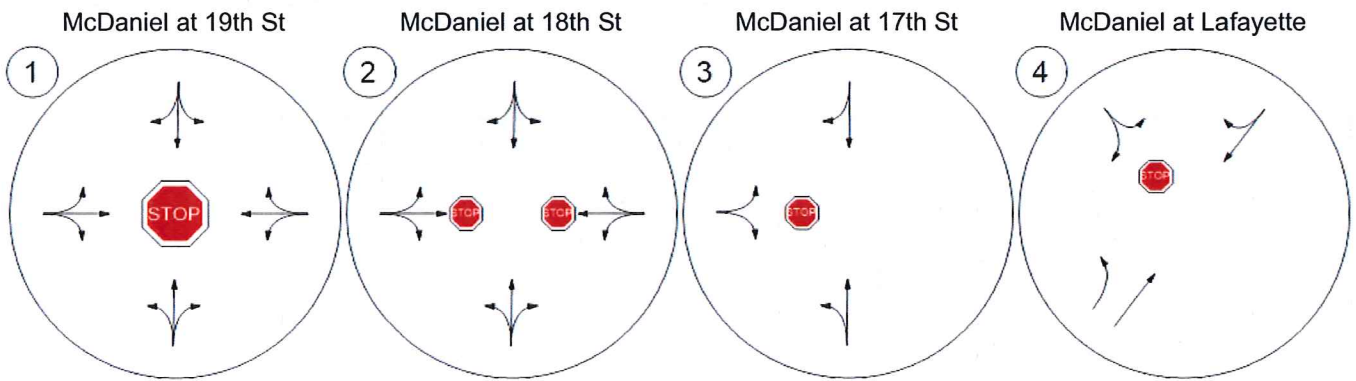
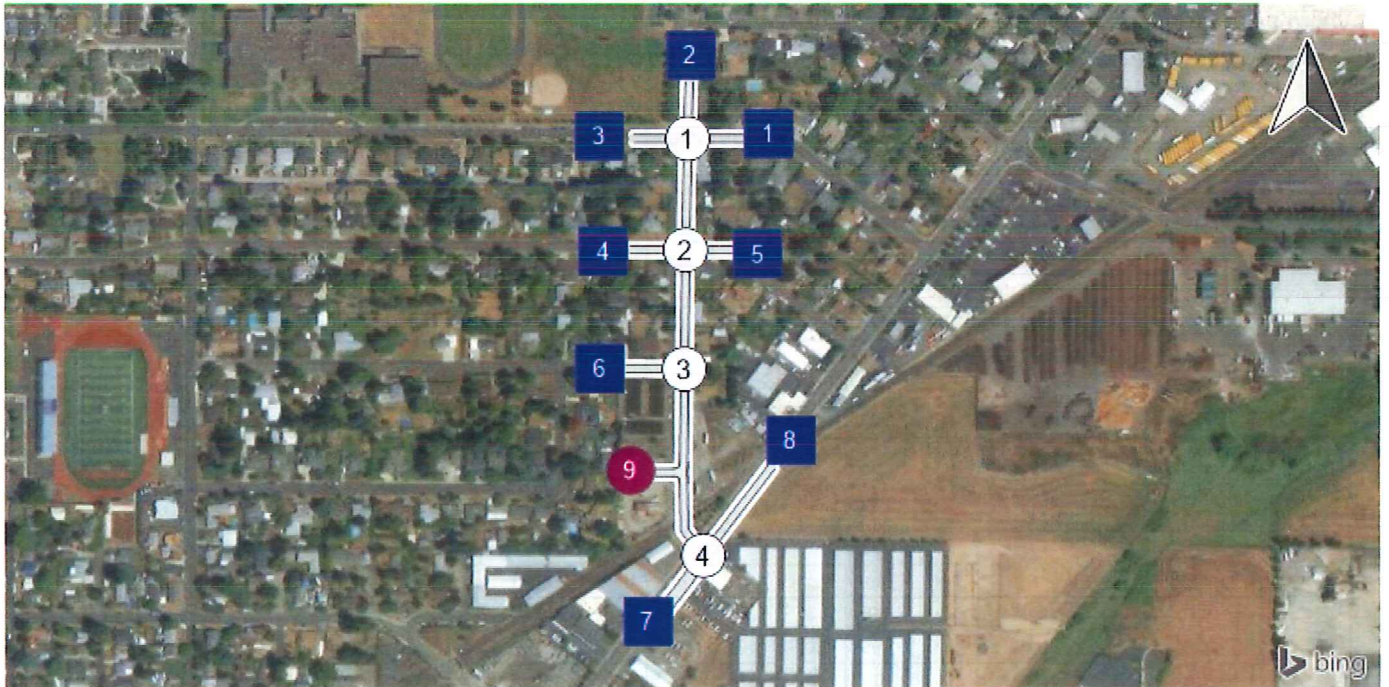
| ID | Intersection Name | Volume Type | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume |
|----|---------------------|---------------------|------------|-----------|----------|------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|----------|--------------|
| | | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 1 | McDaniel at 19th St | Final Base | 42 | 68 | 2 | 4 | 109 | 53 | 43 | 29 | 38 | 1 | 31 | 2 | 422 |
| | | Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | - |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Net New Trips | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 42 | 68 | 2 | 4 | 109 | 53 | 43 | 29 | 38 | 1 | 31 | 2 | 422 |

| ID | Intersection Name | Volume Type | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume |
|----|---------------------|---------------------|------------|-----------|----------|------------|------------|-----------|-----------|-----------|----------|-----------|-----------|----------|--------------|
| | | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 2 | McDaniel at 18th St | Final Base | 3 | 99 | 3 | 2 | 130 | 16 | 10 | 12 | 6 | 0 | 17 | 5 | 303 |
| | | Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | - |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Net New Trips | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 3 | 99 | 3 | 2 | 130 | 16 | 10 | 12 | 6 | 0 | 17 | 5 | 303 |

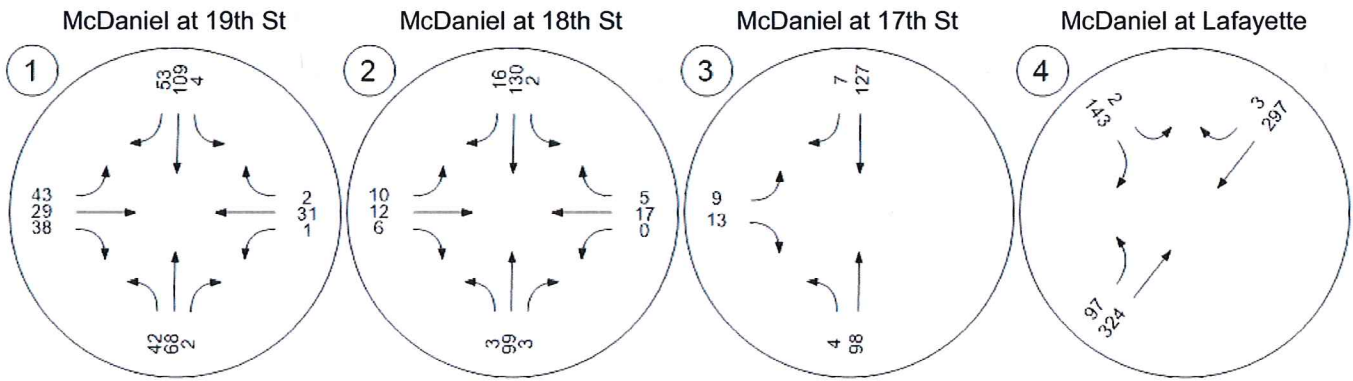
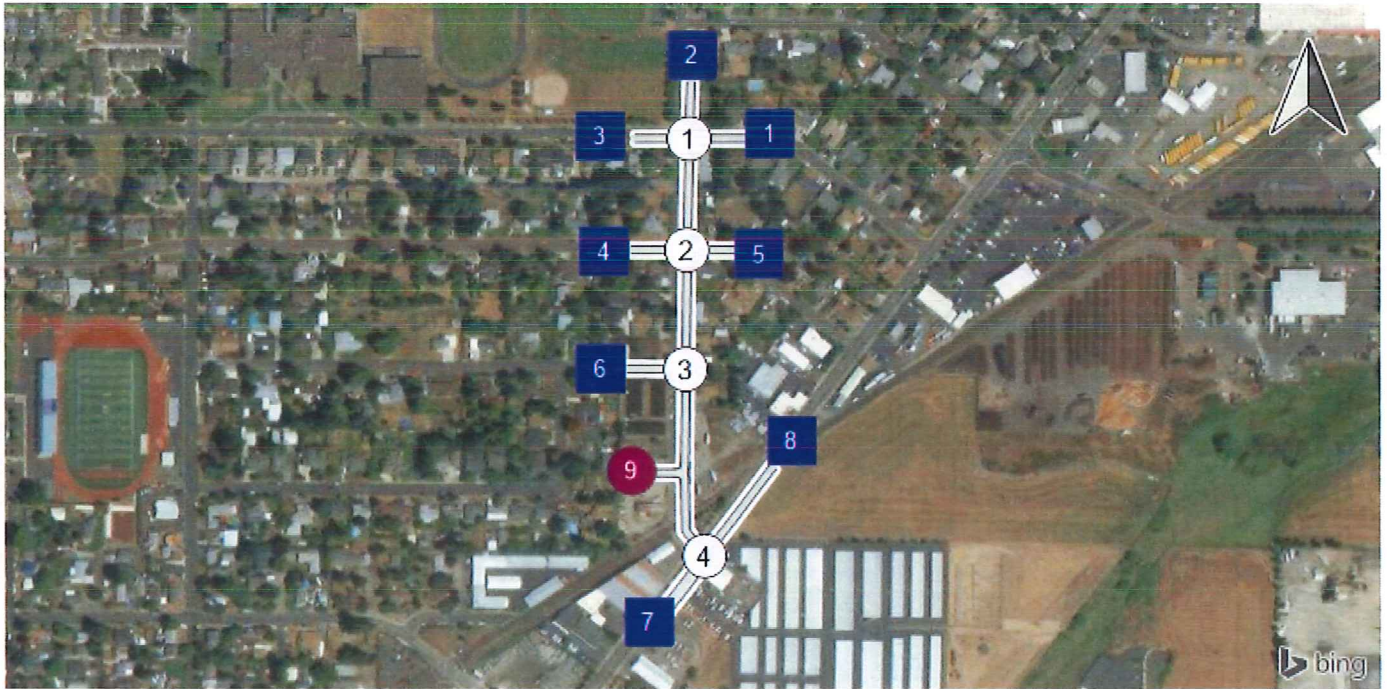
| ID | Intersection Name | Volume Type | Northbound | | Southbound | | Eastbound | | Total Volume |
|----|---------------------|---------------------|------------|-----------|------------|----------|-----------|-----------|--------------|
| | | | Left | Thru | Thru | Right | Left | Right | |
| 3 | McDaniel at 17th St | Final Base | 4 | 98 | 127 | 7 | 9 | 13 | 258 |
| | | Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | - |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Net New Trips | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 4 | 98 | 127 | 7 | 9 | 13 | 258 |

| ID | Intersection Name | Volume Type | Northeastbound | | Southwestbound | | Southeastbound | | Total Volume |
|----|-----------------------|---------------------|----------------|------------|----------------|----------|----------------|------------|--------------|
| | | | Left | Thru | Thru | Right | Left | Right | |
| 4 | McDaniel at Lafayette | Final Base | 97 | 324 | 297 | 3 | 2 | 143 | 866 |
| | | Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | - |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Net New Trips | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 97 | 324 | 297 | 3 | 2 | 143 | 866 |

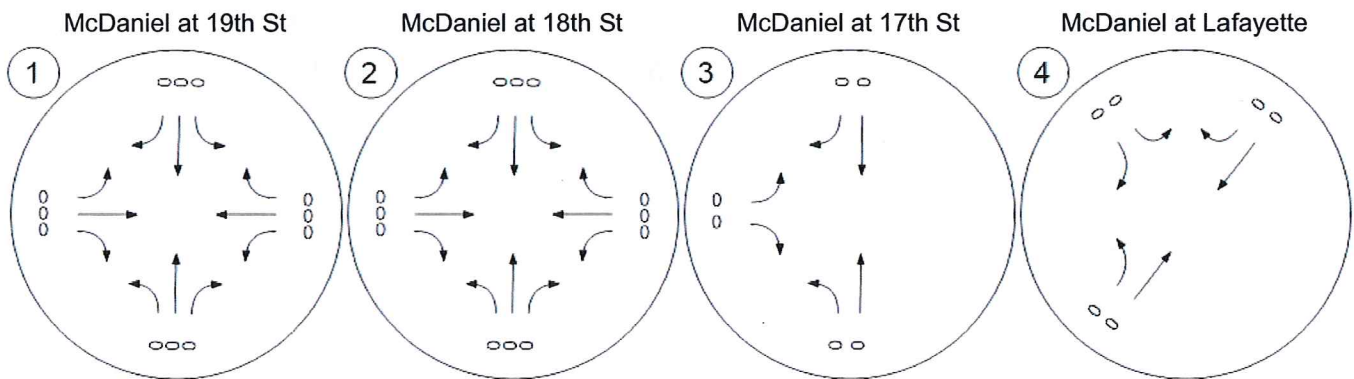
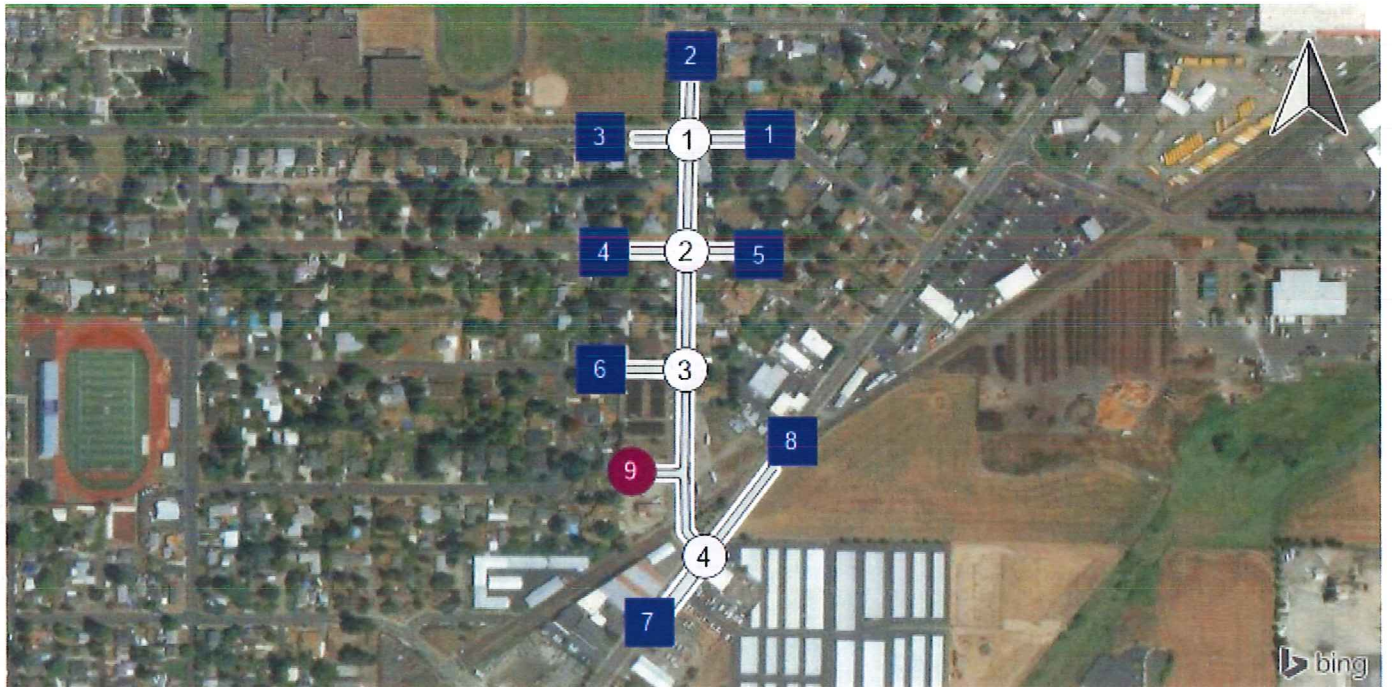
Report Figure 1: Lane Configuration and Traffic Control



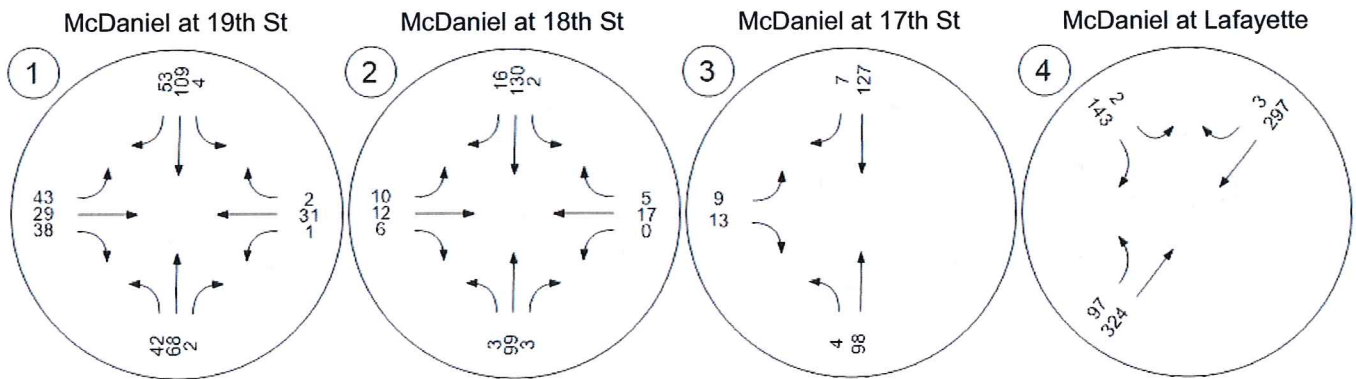
Report Figure 2a: Traffic Volume - Base Volume



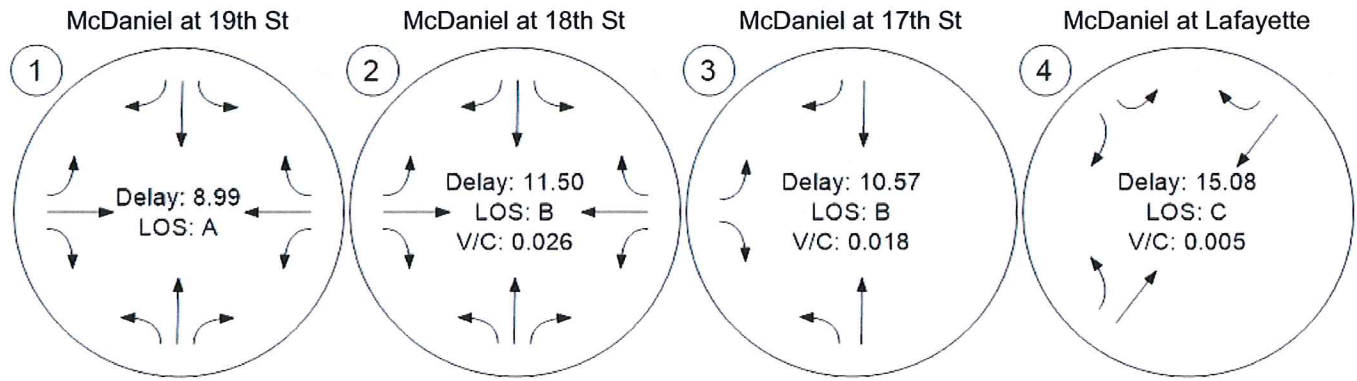
Report Figure 2d: Traffic Volume - Net New Site Trips



Report Figure 2f: Traffic Volume - Future Total Volume



Report Figure 3: Traffic Conditions



18-378 - 17th at McDaniels Apts TIA

Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro
Report File: J:\...\18-379 PM Existing.pdf

Scenario 2 PM Existing
4/3/2018

Intersection Analysis Summary

| ID | Intersection Name | Control Type | Method | Worst Mvmt | V/C | Delay (s/veh) | LOS |
|----|-----------------------|--------------|-----------------|------------|-------|---------------|-----|
| 1 | McDaniel at 19th St | All-way stop | HCM 6th Edition | NB Thru | 0.240 | 8.9 | A |
| 2 | McDaniel at 18th St | Two-way stop | HCM 6th Edition | WB Thru | 0.025 | 11.8 | B |
| 3 | McDaniel at 17th St | Two-way stop | HCM 6th Edition | EB Left | 0.016 | 10.9 | B |
| 4 | McDaniel at Lafayette | Two-way stop | HCM 6th Edition | SEB Left | 0.007 | 22.2 | C |

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. for all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: McDaniel at 19th St

Control Type: All-way stop
Analysis Method: HCM 6th Edition
Analysis Period: 15 minutes

Delay (sec / veh): 8.9
Level Of Service: A
Volume to Capacity (v/c): 0.240

Intersection Setup

| Name | McDaniel St | | | McDaniel St | | | 19th St | | | 19th St | | |
|------------------------|-------------|--------|--------|-------------|--------|--------|-----------|--------|--------|-----------|--------|--------|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | + | | | + | | | + | | | + | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 25.00 | | | 25.00 | | | 25.00 | | | 25.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

Volumes

| Name | McDaniel St | | | McDaniel St | | | 19th St | | | 19th St | | |
|---|-------------|--------|--------|-------------|--------|--------|---------|--------|--------|---------|--------|--------|
| Base Volume Input [veh/h] | 35 | 125 | 2 | 5 | 117 | 41 | 47 | 36 | 15 | 2 | 56 | 4 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 |
| Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 35 | 125 | 2 | 5 | 117 | 41 | 47 | 36 | 15 | 2 | 56 | 4 |
| Peak Hour Factor | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 10 | 36 | 1 | 1 | 34 | 12 | 14 | 10 | 4 | 1 | 16 | 1 |
| Total Analysis Volume [veh/h] | 40 | 144 | 2 | 6 | 134 | 47 | 54 | 41 | 17 | 2 | 64 | 5 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

Intersection Settings

Lanes

| | | | | |
|---------------------------------|------|------|------|------|
| Capacity per Entry Lane [veh/h] | 775 | 806 | 734 | 732 |
| Degree of Utilization, x | 0.24 | 0.23 | 0.15 | 0.10 |

Movement, Approach, & Intersection Results

| | | | | |
|------------------------------------|-------|-------|-------|------|
| 95th-Percentile Queue Length [veh] | 0.94 | 0.90 | 0.54 | 0.32 |
| 95th-Percentile Queue Length [ft] | 23.39 | 22.43 | 13.40 | 8.03 |
| Approach Delay [s/veh] | 9.11 | 8.82 | 8.78 | 8.45 |
| Approach LOS | A | A | A | A |
| Intersection Delay [s/veh] | 8.86 | | | |
| Intersection LOS | A | | | |

Intersection Level Of Service Report
Intersection 2: McDaniel at 18th St

Control Type: Two-way stop
Analysis Method: HCM 6th Edition
Analysis Period: 15 minutes

Delay (sec / veh): 11.8
Level Of Service: B
Volume to Capacity (v/c): 0.025

Intersection Setup

| Name | McDaniel St | | | McDaniel St | | | 18th St | | | 18th St | | |
|------------------------|-------------|--------|--------|-------------|--------|--------|-----------|--------|--------|-----------|--------|--------|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | + | | | + | | | + | | | + | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 25.00 | | | 25.00 | | | 25.00 | | | 25.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

Volumes

| Name | McDaniel St | | | McDaniel St | | | 18th St | | | 18th St | | |
|---|-------------|--------|--------|-------------|--------|--------|---------|--------|--------|---------|--------|--------|
| Base Volume Input [veh/h] | 5 | 141 | 2 | 3 | 143 | 4 | 7 | 5 | 8 | 7 | 12 | 11 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 |
| Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 5 | 141 | 2 | 3 | 143 | 4 | 7 | 5 | 8 | 7 | 12 | 11 |
| Peak Hour Factor | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 1 | 42 | 1 | 1 | 43 | 1 | 2 | 1 | 2 | 2 | 4 | 3 |
| Total Analysis Volume [veh/h] | 6 | 168 | 2 | 4 | 170 | 5 | 8 | 6 | 10 | 8 | 14 | 13 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

Intersection Settings

| | | | | |
|------------------------------------|------|------|------|------|
| Priority Scheme | Free | Free | Stop | Stop |
| Flared Lane | | | No | No |
| Storage Area [veh] | 0 | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 | 0 |

Movement, Approach, & Intersection Results

| | | | | | | | | | | | | |
|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|------|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | 0.03 | 0.01 |
| d_M, Delay for Movement [s/veh] | 7.59 | 0.00 | 0.00 | 7.58 | 0.00 | 0.00 | 11.67 | 11.65 | 9.36 | 11.63 | 11.77 | 9.45 |
| Movement LOS | A | A | A | A | A | A | B | B | A | B | B | A |
| 95th-Percentile Queue Length [veh] | 0.43 | 0.43 | 0.43 | 0.44 | 0.44 | 0.44 | 0.11 | 0.11 | 0.11 | 0.17 | 0.17 | 0.17 |
| 95th-Percentile Queue Length [ft] | 10.80 | 10.80 | 10.80 | 10.96 | 10.96 | 10.96 | 2.85 | 2.85 | 2.85 | 4.28 | 4.28 | 4.28 |
| d_A, Approach Delay [s/veh] | 0.26 | | | 0.17 | | | 10.70 | | | 10.88 | | |
| Approach LOS | A | | | A | | | B | | | B | | |
| d_I, Intersection Delay [s/veh] | 1.72 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |

Intersection Level Of Service Report
Intersection 3: McDaniel at 17th St

Control Type: Two-way stop
Analysis Method: HCM 6th Edition
Analysis Period: 15 minutes

Delay (sec / veh): 10.9
Level Of Service: B
Volume to Capacity (v/c): 0.016

Intersection Setup

| Name | McDaniel St | | McDaniel St | | 17th St | |
|------------------------|-------------|--------|-------------|--------|-----------|--------|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | Yes | | Yes | |

Volumes

| Name | McDaniel St | | McDaniel St | | 17th St | |
|---|-------------|--------|-------------|--------|---------|--------|
| Base Volume Input [veh/h] | 15 | 144 | 144 | 12 | 9 | 2 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 |
| Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 15 | 144 | 144 | 12 | 9 | 2 |
| Peak Hour Factor | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 4 | 41 | 41 | 3 | 3 | 1 |
| Total Analysis Volume [veh/h] | 17 | 166 | 166 | 14 | 10 | 2 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

Intersection Settings

| | | | |
|------------------------------------|------|------|------|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

Movement, Approach, & Intersection Results

| | | | | | | |
|------------------------------------|-------|-------|------|------|-------|------|
| V/C, Movement V/C Ratio | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 |
| d_M, Delay for Movement [s/veh] | 7.60 | 0.00 | 0.00 | 0.00 | 10.89 | 9.22 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh] | 0.45 | 0.45 | 0.00 | 0.00 | 0.06 | 0.06 |
| 95th-Percentile Queue Length [ft] | 11.21 | 11.21 | 0.00 | 0.00 | 1.40 | 1.40 |
| d_A, Approach Delay [s/veh] | 0.71 | | 0.00 | | 10.61 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.68 | | | | | |
| Intersection LOS | B | | | | | |

Intersection Level Of Service Report
Intersection 4: McDaniel at Lafayette

Control Type: Two-way stop
Analysis Method: HCM 6th Edition
Analysis Period: 15 minutes

Delay (sec / veh): 22.2
Level Of Service: C
Volume to Capacity (v/c): 0.007

Intersection Setup

| Name | Lafayette Ave | | Lafayette Ave | | McDaniel St | |
|------------------------|----------------|--------|----------------|--------|----------------|--------|
| Approach | Northeastbound | | Southwestbound | | Southeastbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | Yes | | Yes | |

Volumes

| Name | Lafayette Ave | | Lafayette Ave | | McDaniel St | |
|---|---------------|--------|---------------|--------|-------------|--------|
| Base Volume Input [veh/h] | 138 | 486 | 622 | 12 | 2 | 127 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 |
| Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 138 | 486 | 622 | 12 | 2 | 127 |
| Peak Hour Factor | 0.9000 | 0.9000 | 0.9000 | 0.9000 | 0.9000 | 0.9000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 38 | 135 | 173 | 3 | 1 | 35 |
| Total Analysis Volume [veh/h] | 153 | 540 | 691 | 13 | 2 | 141 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

Intersection Settings

| | | | |
|------------------------------------|------|------|------|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | Yes |
| Storage Area [veh] | 0 | 0 | 2 |
| Two-Stage Gap Acceptance | | | Yes |
| Number of Storage Spaces in Median | 0 | 0 | 2 |

Movement, Approach, & Intersection Results

| | | | | | | |
|------------------------------------|-------|------|------|------|-------|-------|
| V/C, Movement V/C Ratio | 0.17 | 0.01 | 0.01 | 0.00 | 0.01 | 0.32 |
| d_M, Delay for Movement [s/veh] | 9.90 | 0.00 | 0.00 | 0.00 | 22.20 | 17.00 |
| Movement LOS | A | A | A | A | C | C |
| 95th-Percentile Queue Length [veh] | 0.62 | 0.00 | 0.00 | 0.00 | 1.37 | 1.37 |
| 95th-Percentile Queue Length [ft] | 15.51 | 0.00 | 0.00 | 0.00 | 34.29 | 34.29 |
| d_A, Approach Delay [s/veh] | 2.19 | | 0.00 | | 17.07 | |
| Approach LOS | A | | A | | C | |
| d_I, Intersection Delay [s/veh] | 2.57 | | | | | |
| Intersection LOS | C | | | | | |

18-378 - 17th at McDaniels Apts TIA

Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro

Scenario 2 PM Existing

Report File: J:\...\18-379 PM Existing.pdf

4/3/2018

Turning Movement Volume: Summary

| ID | Intersection Name | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume |
|----|---------------------|------------|------|-------|------------|------|-------|-----------|------|-------|-----------|------|-------|--------------|
| | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 1 | McDaniel at 19th St | 35 | 125 | 2 | 5 | 117 | 41 | 47 | 36 | 15 | 2 | 56 | 4 | 485 |

| ID | Intersection Name | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume |
|----|---------------------|------------|------|-------|------------|------|-------|-----------|------|-------|-----------|------|-------|--------------|
| | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 2 | McDaniel at 18th St | 5 | 141 | 2 | 3 | 143 | 4 | 7 | 5 | 8 | 7 | 12 | 11 | 348 |

| ID | Intersection Name | Northbound | | Southbound | | Eastbound | | Total Volume |
|----|---------------------|------------|------|------------|-------|-----------|-------|--------------|
| | | Left | Thru | Thru | Right | Left | Right | |
| 3 | McDaniel at 17th St | 15 | 144 | 144 | 12 | 9 | 2 | 326 |

| ID | Intersection Name | Northeastbound | | Southwestbound | | Southeastbound | | Total Volume |
|----|-----------------------|----------------|------|----------------|-------|----------------|-------|--------------|
| | | Left | Thru | Thru | Right | Left | Right | |
| 4 | McDaniel at Lafayette | 138 | 486 | 622 | 12 | 2 | 127 | 1387 |

18-378 - 17th at McDaniels Apts TIA

Turning Movement Volume: Detail

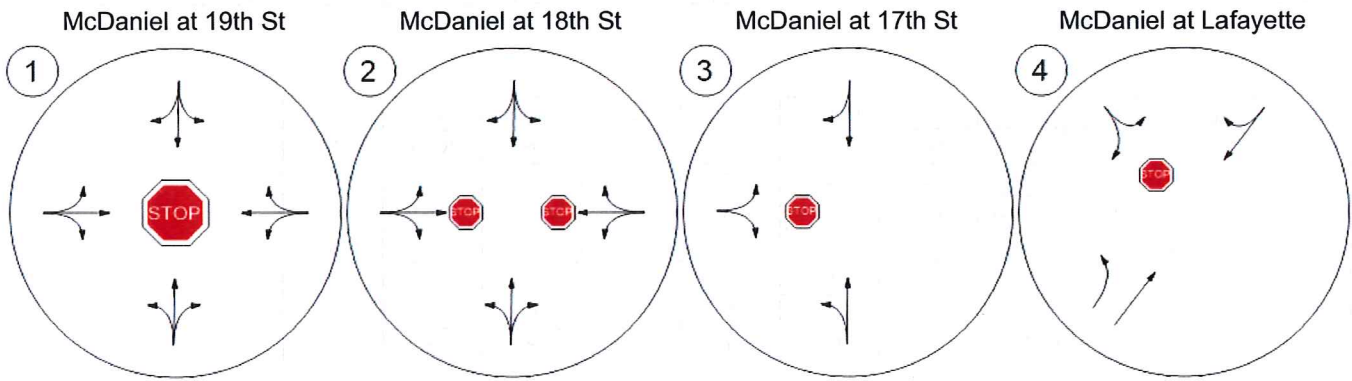
| ID | Intersection Name | Volume Type | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume | |
|----|---------------------|---------------------|------------|------------|----------|------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|----------|--------------|---|
| | | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | | |
| 1 | McDaniel at 19th St | Final Base | 35 | 125 | 2 | 5 | 117 | 41 | 47 | 36 | 15 | 2 | 56 | 4 | 485 | |
| | | Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | - |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Net New Trips | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 35 | 125 | 2 | 5 | 117 | 41 | 47 | 36 | 15 | 2 | 56 | 4 | 485 | |

| ID | Intersection Name | Volume Type | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume | |
|----|---------------------|---------------------|------------|------------|----------|------------|------------|----------|-----------|----------|----------|-----------|-----------|-----------|--------------|---|
| | | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | | |
| 2 | McDaniel at 18th St | Final Base | 5 | 141 | 2 | 3 | 143 | 4 | 7 | 5 | 8 | 7 | 12 | 11 | 348 | |
| | | Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | - |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Net New Trips | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 5 | 141 | 2 | 3 | 143 | 4 | 7 | 5 | 8 | 7 | 12 | 11 | 348 | |

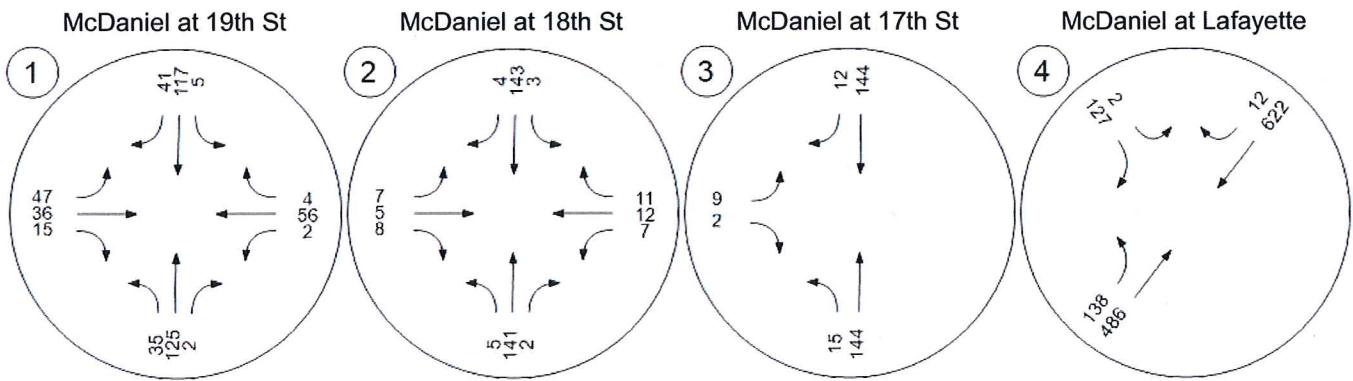
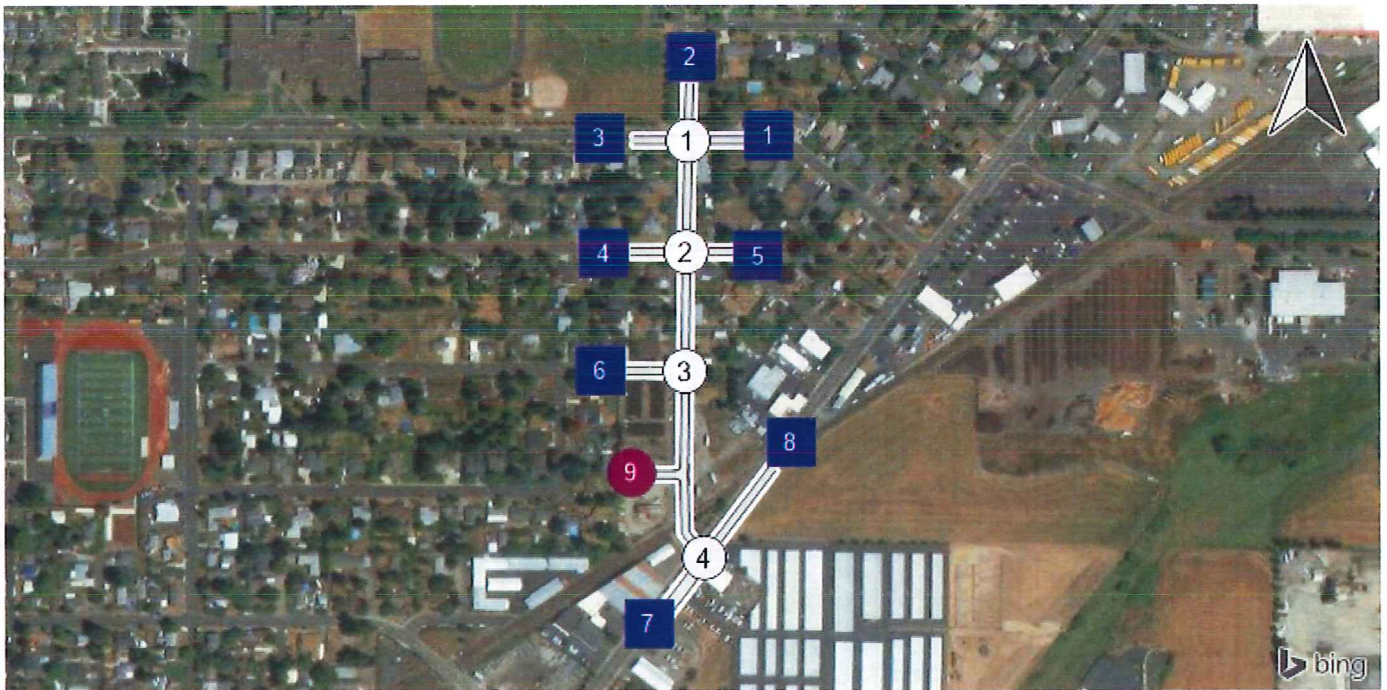
| ID | Intersection Name | Volume Type | Northbound | | Southbound | | Eastbound | | Total Volume |
|----|---------------------|---------------------|------------|------------|------------|-----------|-----------|----------|--------------|
| | | | Left | Thru | Thru | Right | Left | Right | |
| 3 | McDaniel at 17th St | Final Base | 15 | 144 | 144 | 12 | 9 | 2 | 326 |
| | | Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | - |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Net New Trips | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 15 | 144 | 144 | 12 | 9 | 2 | 326 |

| ID | Intersection Name | Volume Type | Northeastbound | | Southwestbound | | Southeastbound | | Total Volume |
|----|-----------------------|---------------------|----------------|------------|----------------|-----------|----------------|------------|--------------|
| | | | Left | Thru | Thru | Right | Left | Right | |
| 4 | McDaniel at Lafayette | Final Base | 138 | 486 | 622 | 12 | 2 | 127 | 1387 |
| | | Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | - |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Net New Trips | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 138 | 486 | 622 | 12 | 2 | 127 | 1387 |

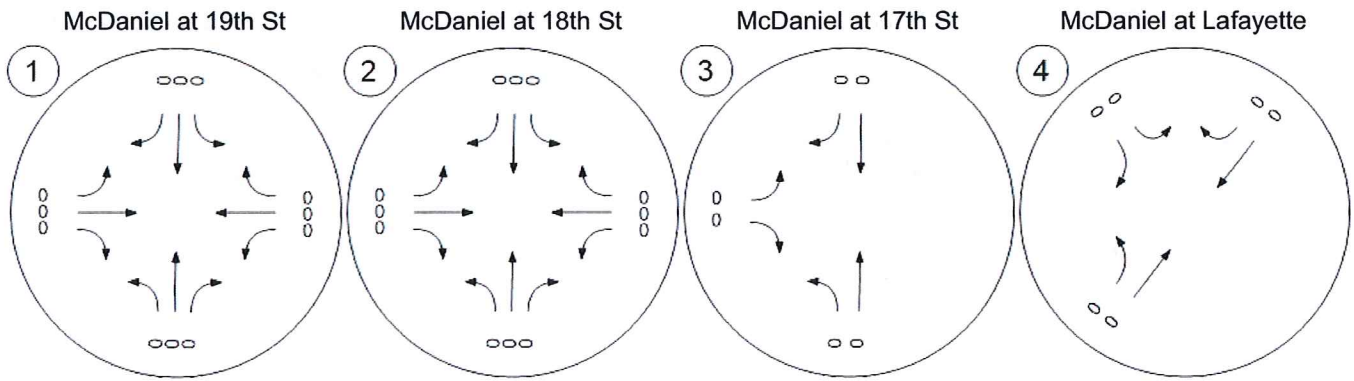
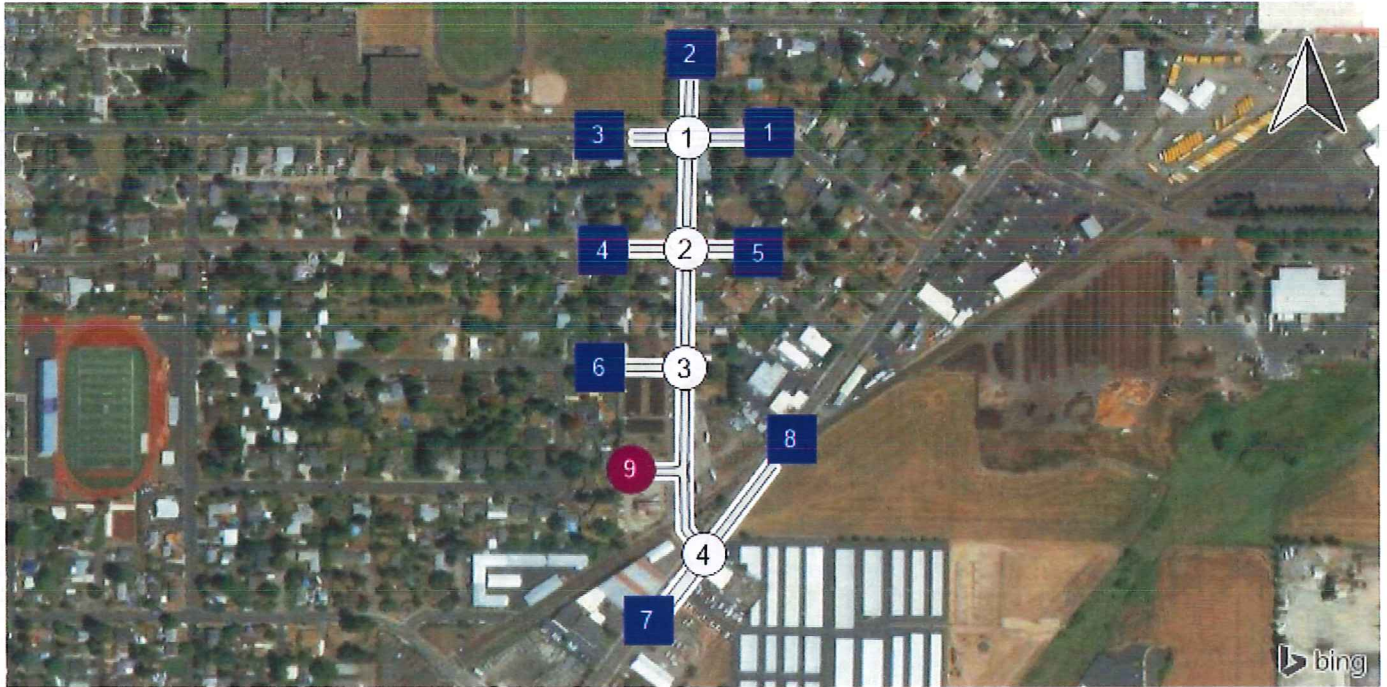
Report Figure 1: Lane Configuration and Traffic Control



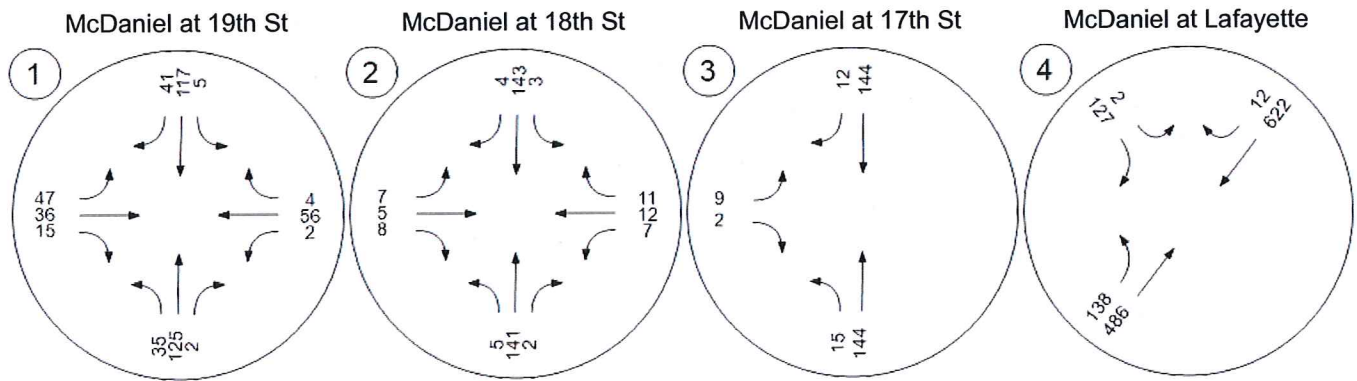
Report Figure 2a: Traffic Volume - Base Volume



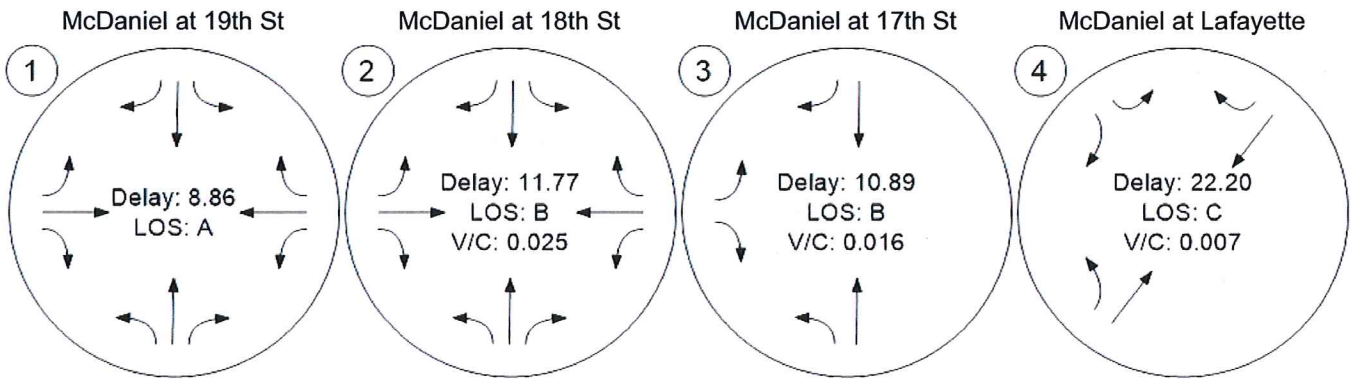
Report Figure 2d: Traffic Volume - Net New Site Trips



Report Figure 2f: Traffic Volume - Future Total Volume



Report Figure 3: Traffic Conditions



18-378 - 17th at McDaniels Apts TIA

Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro
Report File: J:\...\18-379 AM Developed.pdf

Scenario 3 AM Developed
4/3/2018

Intersection Analysis Summary

| ID | Intersection Name | Control Type | Method | Worst Mvmt | V/C | Delay (s/veh) | LOS |
|----|-------------------------|--------------|-----------------|------------|-------|---------------|-----|
| 1 | McDaniel at 19th St | All-way stop | HCM 6th Edition | SB Thru | 0.275 | 9.0 | A |
| 2 | McDaniel at 18th St | Two-way stop | HCM 6th Edition | EB Thru | 0.026 | 11.5 | B |
| 3 | McDaniel at 17th St | Two-way stop | HCM 6th Edition | EB Left | 0.018 | 10.6 | B |
| 4 | McDaniel at Lafayette | Two-way stop | HCM 6th Edition | SEB Left | 0.005 | 15.2 | C |
| 5 | McDaniel at Site Access | Two-way stop | HCM 6th Edition | EB Left | 0.006 | 10.6 | B |

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. for all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: McDaniel at 19th St

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | All-way stop | Delay (sec / veh): | 9.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.275 |

Intersection Setup

| Name | McDaniel St | | | McDaniel St | | | 19th St | | | 19th St | | |
|------------------------|-------------|--------|--------|-------------|--------|--------|-----------|--------|--------|-----------|--------|--------|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | + | | | + | | | + | | | + | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 25.00 | | | 25.00 | | | 25.00 | | | 25.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

Volumes

| Name | McDaniel St | | | McDaniel St | | | 19th St | | | 19th St | | |
|---|-------------|--------|--------|-------------|--------|--------|---------|--------|--------|---------|--------|--------|
| Base Volume Input [veh/h] | 42 | 68 | 2 | 4 | 109 | 53 | 43 | 29 | 38 | 1 | 31 | 2 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 |
| Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 44 | 68 | 3 | 4 | 109 | 53 | 43 | 29 | 39 | 1 | 31 | 2 |
| Peak Hour Factor | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 15 | 23 | 1 | 1 | 36 | 18 | 14 | 10 | 13 | 0 | 10 | 1 |
| Total Analysis Volume [veh/h] | 59 | 91 | 4 | 5 | 145 | 71 | 57 | 39 | 52 | 1 | 41 | 3 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

Intersection Settings

Lanes

| | | | | |
|---------------------------------|------|------|------|------|
| Capacity per Entry Lane [veh/h] | 751 | 804 | 750 | 714 |
| Degree of Utilization, x | 0.21 | 0.27 | 0.20 | 0.06 |

Movement, Approach, & Intersection Results

| | | | | |
|------------------------------------|-------|-------|-------|------|
| 95th-Percentile Queue Length [veh] | 0.77 | 1.12 | 0.73 | 0.20 |
| 95th-Percentile Queue Length [ft] | 19.15 | 27.99 | 18.26 | 5.04 |
| Approach Delay [s/veh] | 9.03 | 9.16 | 8.98 | 8.38 |
| Approach LOS | A | A | A | A |
| Intersection Delay [s/veh] | 9.02 | | | |
| Intersection LOS | A | | | |

Intersection Level Of Service Report
Intersection 2: McDaniel at 18th St

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | Two-way stop | Delay (sec / veh): | 11.5 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.026 |

Intersection Setup

| Name | McDaniel St | | | McDaniel St | | | 18th St | | | 18th St | | |
|------------------------|-------------|--------|--------|-------------|--------|--------|-----------|--------|--------|-----------|--------|--------|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | + | | | + | | | + | | | + | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 25.00 | | | 25.00 | | | 25.00 | | | 25.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

Volumes

| Name | McDaniel St | | | McDaniel St | | | 18th St | | | 18th St | | |
|---|-------------|--------|--------|-------------|--------|--------|---------|--------|--------|---------|--------|--------|
| Base Volume Input [veh/h] | 3 | 99 | 3 | 2 | 130 | 16 | 10 | 12 | 6 | 0 | 17 | 5 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 |
| Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 3 | 102 | 3 | 2 | 131 | 16 | 10 | 12 | 6 | 0 | 17 | 5 |
| Peak Hour Factor | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 1 | 33 | 1 | 1 | 42 | 5 | 3 | 4 | 2 | 0 | 5 | 2 |
| Total Analysis Volume [veh/h] | 4 | 131 | 4 | 3 | 168 | 21 | 13 | 15 | 8 | 0 | 22 | 6 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

Intersection Settings

| | | | | |
|------------------------------------|------|------|------|------|
| Priority Scheme | Free | Free | Stop | Stop |
| Flared Lane | | | No | No |
| Storage Area [veh] | 0 | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 | 0 |

Movement, Approach, & Intersection Results

| | | | | | | | | | | | | |
|------------------------------------|------|------|------|-------|-------|-------|-------|-------|------|-------|-------|------|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.03 | 0.01 | 0.00 | 0.04 | 0.01 |
| d_M, Delay for Movement [s/veh] | 7.65 | 0.00 | 0.00 | 7.53 | 0.00 | 0.00 | 11.53 | 11.54 | 9.56 | 11.38 | 11.53 | 9.25 |
| Movement LOS | A | A | A | A | A | A | B | B | A | B | B | A |
| 95th-Percentile Queue Length [veh] | 0.34 | 0.34 | 0.34 | 0.47 | 0.47 | 0.47 | 0.18 | 0.18 | 0.18 | 0.14 | 0.14 | 0.14 |
| 95th-Percentile Queue Length [ft] | 8.51 | 8.51 | 8.51 | 11.64 | 11.64 | 11.64 | 4.56 | 4.56 | 4.56 | 3.52 | 3.52 | 3.52 |
| d_A, Approach Delay [s/veh] | 0.22 | | | 0.12 | | | 11.10 | | | 11.04 | | |
| Approach LOS | A | | | A | | | B | | | B | | |
| d_I, Intersection Delay [s/veh] | 1.93 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |

Intersection Level Of Service Report
Intersection 3: McDaniel at 17th St

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | Two-way stop | Delay (sec / veh): | 10.6 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.018 |

Intersection Setup

| Name | McDaniel St | | McDaniel St | | 17th St | |
|------------------------|-------------|--------|-------------|--------|-----------|--------|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration | ↰ | | ↱ | | ↻ | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | Yes | | Yes | |

Volumes

| Name | McDaniel St | | McDaniel St | | 17th St | |
|---|-------------|--------|-------------|--------|---------|--------|
| Base Volume Input [veh/h] | 4 | 98 | 127 | 7 | 9 | 13 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 3.86 | 3.86 | 3.86 | 3.86 | 3.86 | 3.86 |
| Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 3 | 1 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 4 | 101 | 128 | 7 | 9 | 13 |
| Peak Hour Factor | 0.7400 | 0.7400 | 0.7400 | 0.7400 | 0.7400 | 0.7400 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 1 | 34 | 43 | 2 | 3 | 4 |
| Total Analysis Volume [veh/h] | 5 | 136 | 173 | 9 | 12 | 18 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

Intersection Settings

| | | | |
|------------------------------------|------|------|------|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

Movement, Approach, & Intersection Results

| | | | | | | |
|------------------------------------|------|------|------|------|-------|------|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.02 |
| d_M, Delay for Movement [s/veh] | 7.61 | 0.00 | 0.00 | 0.00 | 10.61 | 9.37 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh] | 0.34 | 0.34 | 0.00 | 0.00 | 0.12 | 0.12 |
| 95th-Percentile Queue Length [ft] | 8.50 | 8.50 | 0.00 | 0.00 | 3.04 | 3.04 |
| d_A, Approach Delay [s/veh] | 0.27 | | 0.00 | | 9.87 | |
| Approach LOS | A | | A | | A | |
| d_I, Intersection Delay [s/veh] | 0.95 | | | | | |
| Intersection LOS | B | | | | | |

Intersection Level Of Service Report
Intersection 4: McDaniel at Lafayette

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | Two-way stop | Delay (sec / veh): | 15.2 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.005 |

Intersection Setup

| Name | Lafayette Ave | | Lafayette Ave | | McDaniel St | |
|------------------------|----------------|--------|----------------|--------|----------------|--------|
| Approach | Northeastbound | | Southwestbound | | Southeastbound | |
| Lane Configuration | ↶ | | ↷ | | ↶ ↷ | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | Yes | | Yes | |

Volumes

| Name | Lafayette Ave | | Lafayette Ave | | McDaniel St | |
|---|---------------|--------|---------------|--------|-------------|--------|
| Base Volume Input [veh/h] | 97 | 324 | 297 | 3 | 2 | 143 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 7.37 | 7.37 | 7.37 | 7.37 | 7.37 | 7.37 |
| Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 1 | 0 | 0 | 0 | 0 | 5 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 98 | 324 | 297 | 3 | 2 | 148 |
| Peak Hour Factor | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 28 | 93 | 85 | 1 | 1 | 43 |
| Total Analysis Volume [veh/h] | 113 | 372 | 341 | 3 | 2 | 170 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

Intersection Settings

| | | | |
|------------------------------------|------|------|------|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | Yes |
| Storage Area [veh] | 0 | 0 | 2 |
| Two-Stage Gap Acceptance | | | Yes |
| Number of Storage Spaces in Median | 0 | 0 | 2 |

Movement, Approach, & Intersection Results

| | | | | | | |
|------------------------------------|------|------|------|------|-------|-------|
| V/C, Movement V/C Ratio | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.25 |
| d_M, Delay for Movement [s/veh] | 8.36 | 0.00 | 0.00 | 0.00 | 15.20 | 11.92 |
| Movement LOS | A | A | A | A | C | B |
| 95th-Percentile Queue Length [veh] | 0.32 | 0.00 | 0.00 | 0.00 | 0.97 | 0.97 |
| 95th-Percentile Queue Length [ft] | 7.88 | 0.00 | 0.00 | 0.00 | 24.25 | 24.25 |
| d_A, Approach Delay [s/veh] | 1.95 | | 0.00 | | 11.96 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 3.00 | | | | | |
| Intersection LOS | C | | | | | |

Intersection Level Of Service Report
Intersection 5: McDaniel at Site Access

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | Two-way stop | Delay (sec / veh): | 10.6 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.006 |

Intersection Setup

| Name | McDaniel St | | McDaniel St | | Site Access | |
|------------------------|-------------|--------|-------------|--------|-------------|--------|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration | ↰ | | ↱ | | ↔ | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 25.00 | | 25.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | Yes | | Yes | |

Volumes

| Name | McDaniel St | | McDaniel St | | Site Access | |
|---|-------------|--------|-------------|--------|-------------|--------|
| Base Volume Input [veh/h] | 0 | 102 | 145 | 0 | 0 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 1 | 0 | 0 | 1 | 3 | 5 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 1 | 102 | 145 | 1 | 3 | 5 |
| Peak Hour Factor | 0.7400 | 0.7400 | 0.7400 | 0.7400 | 0.7400 | 0.7400 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 34 | 49 | 0 | 1 | 2 |
| Total Analysis Volume [veh/h] | 1 | 138 | 196 | 1 | 4 | 7 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

Intersection Settings

| | | | |
|------------------------------------|------|------|------|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

Movement, Approach, & Intersection Results

| | | | | | | |
|------------------------------------|------|------|------|------|-------|------|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 |
| d_M, Delay for Movement [s/veh] | 7.64 | 0.00 | 0.00 | 0.00 | 10.57 | 9.36 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh] | 0.34 | 0.34 | 0.00 | 0.00 | 0.04 | 0.04 |
| 95th-Percentile Queue Length [ft] | 8.49 | 8.49 | 0.00 | 0.00 | 1.10 | 1.10 |
| d_A, Approach Delay [s/veh] | 0.05 | | 0.00 | | 9.80 | |
| Approach LOS | A | | A | | A | |
| d_I, Intersection Delay [s/veh] | 0.33 | | | | | |
| Intersection LOS | B | | | | | |

18-378 - 17th at McDaniels Apts TIA

Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro
Report File: J:\...\18-379 AM Developed.pdf

Scenario 3 AM Developed
4/3/2018

Turning Movement Volume: Summary

| ID | Intersection Name | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume |
|----|---------------------|------------|------|-------|------------|------|-------|-----------|------|-------|-----------|------|-------|--------------|
| | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 1 | McDaniel at 19th St | 44 | 68 | 3 | 4 | 109 | 53 | 43 | 29 | 39 | 1 | 31 | 2 | 426 |

| ID | Intersection Name | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume |
|----|---------------------|------------|------|-------|------------|------|-------|-----------|------|-------|-----------|------|-------|--------------|
| | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 2 | McDaniel at 18th St | 3 | 102 | 3 | 2 | 131 | 16 | 10 | 12 | 6 | 0 | 17 | 5 | 307 |

| ID | Intersection Name | Northbound | | Southbound | | Eastbound | | Total Volume |
|----|---------------------|------------|------|------------|-------|-----------|-------|--------------|
| | | Left | Thru | Thru | Right | Left | Right | |
| 3 | McDaniel at 17th St | 4 | 101 | 128 | 7 | 9 | 13 | 262 |

| ID | Intersection Name | Northeastbound | | Southwestbound | | Southeastbound | | Total Volume |
|----|-----------------------|----------------|------|----------------|-------|----------------|-------|--------------|
| | | Left | Thru | Thru | Right | Left | Right | |
| 4 | McDaniel at Lafayette | 98 | 324 | 297 | 3 | 2 | 148 | 872 |

| ID | Intersection Name | Northbound | | Southbound | | Eastbound | | Total Volume |
|----|-------------------------|------------|------|------------|-------|-----------|-------|--------------|
| | | Left | Thru | Thru | Right | Left | Right | |
| 5 | McDaniel at Site Access | 1 | 102 | 145 | 1 | 3 | 5 | 257 |

18-378 - 17th at McDaniels Apts TIA

Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro

Scenario 3 AM Developed

Report File: J:\...\18-379 AM Developed.pdf

4/3/2018

Turning Movement Volume: Detail

| ID | Intersection Name | Volume Type | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume | |
|----|---------------------|---------------------|------------|-----------|----------|------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|----------|--------------|---|
| | | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | | |
| 1 | McDaniel at 19th St | Final Base | 42 | 68 | 2 | 4 | 109 | 53 | 43 | 29 | 38 | 1 | 31 | 2 | 422 | |
| | | Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | - | |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | Net New Trips | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 44 | 68 | 3 | 4 | 109 | 53 | 43 | 29 | 39 | 1 | 31 | 2 | 426 | |

| ID | Intersection Name | Volume Type | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume | |
|----|---------------------|---------------------|------------|------------|----------|------------|------------|-----------|-----------|-----------|----------|-----------|-----------|----------|--------------|---|
| | | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | | |
| 2 | McDaniel at 18th St | Final Base | 3 | 99 | 3 | 2 | 130 | 16 | 10 | 12 | 6 | 0 | 17 | 5 | 303 | |
| | | Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | - | |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | Net New Trips | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 3 | 102 | 3 | 2 | 131 | 16 | 10 | 12 | 6 | 0 | 17 | 5 | 307 | |

| ID | Intersection Name | Volume Type | Northbound | | Southbound | | Eastbound | | Total Volume |
|----|---------------------|---------------------|------------|------------|------------|----------|-----------|-----------|--------------|
| | | | Left | Thru | Thru | Right | Left | Right | |
| 3 | McDaniel at 17th St | Final Base | 4 | 98 | 127 | 7 | 9 | 13 | 258 |
| | | Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | - |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Net New Trips | 0 | 3 | 1 | 0 | 0 | 0 | 4 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 4 | 101 | 128 | 7 | 9 | 13 | 262 |

| ID | Intersection Name | Volume Type | Northeastbound | | Southwestbound | | Southeastbound | | Total Volume |
|----|-----------------------|---------------------|----------------|------------|----------------|----------|----------------|------------|--------------|
| | | | Left | Thru | Thru | Right | Left | Right | |
| 4 | McDaniel at Lafayette | Final Base | 97 | 324 | 297 | 3 | 2 | 143 | 866 |
| | | Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | - |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Net New Trips | 1 | 0 | 0 | 0 | 0 | 5 | 6 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 98 | 324 | 297 | 3 | 2 | 148 | 872 |

| ID | Intersection Name | Volume Type | Northbound | | Southbound | | Eastbound | | Total Volume |
|----|-------------------------|---------------------|------------|------------|------------|----------|-----------|----------|--------------|
| | | | Left | Thru | Thru | Right | Left | Right | |
| 5 | McDaniel at Site Access | Final Base | 0 | 102 | 145 | 0 | 0 | 0 | 247 |
| | | Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | - |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Net New Trips | 1 | 0 | 0 | 1 | 3 | 5 | 10 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 1 | 102 | 145 | 1 | 3 | 5 | 257 |

18-378 - 17th at McDaniels Apts TIA

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 Report File: J:\...\18-379 AM Developed.pdf

Scenario 3 AM Developed
 4/3/2018

Trip Generation summary

Added Trips

| Zone ID: Name | Land Use variables | Code | Ind. Var. | Rate | Quantity | % In | % Out | Trips In | Trips Out | Total Trips | % of Total Trips |
|--------------------------|--------------------|---------|----------------|-------|----------|-------|-------|----------|-----------|-------------|------------------|
| 9: McDaniel St Apts | Apartments | ITE 220 | Apartment Unit | 0.510 | 29.000 | 20.00 | 80.00 | 3 | 12 | 15 | 100.00 |
| Added Trips Total | | | | | | | | 3 | 12 | 15 | 100.00 |

18-378 - 17th at McDaniels Apts TIA

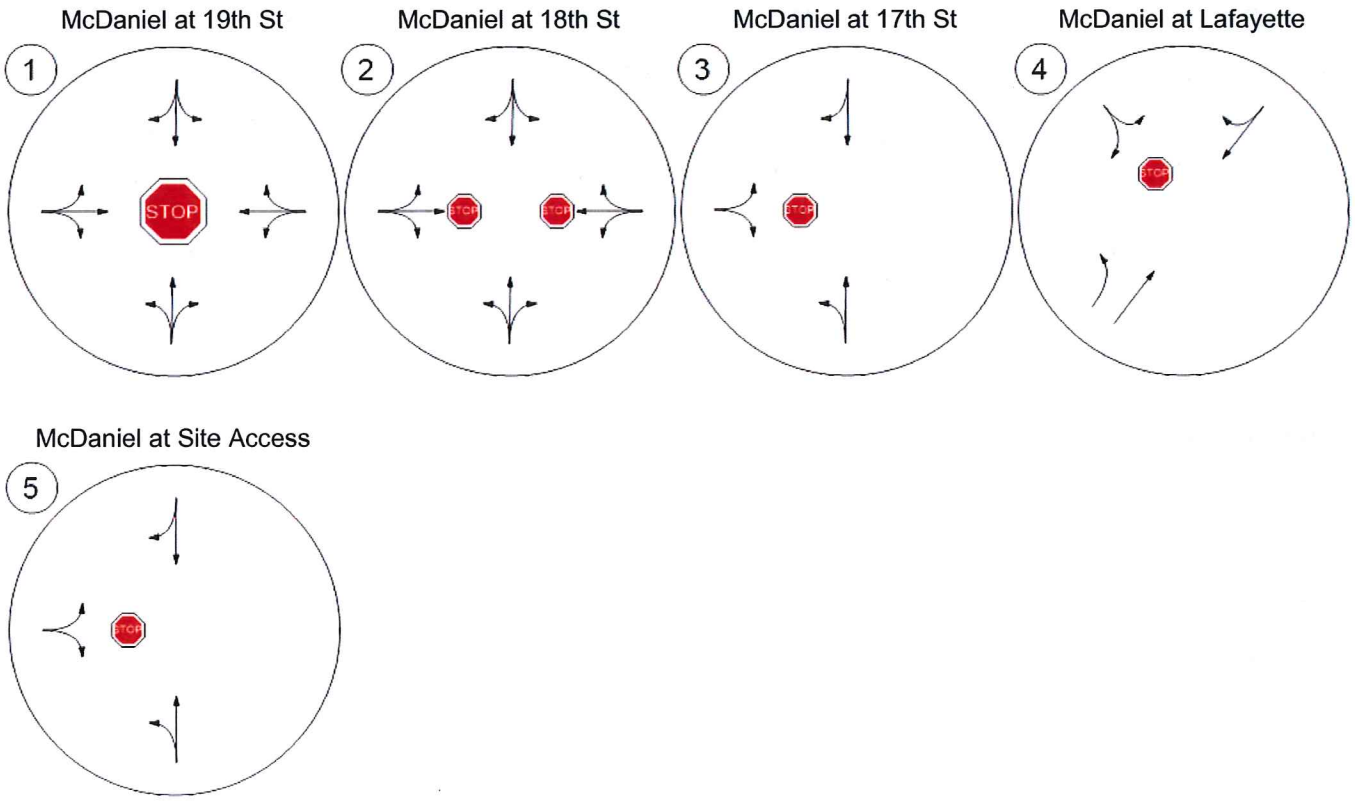
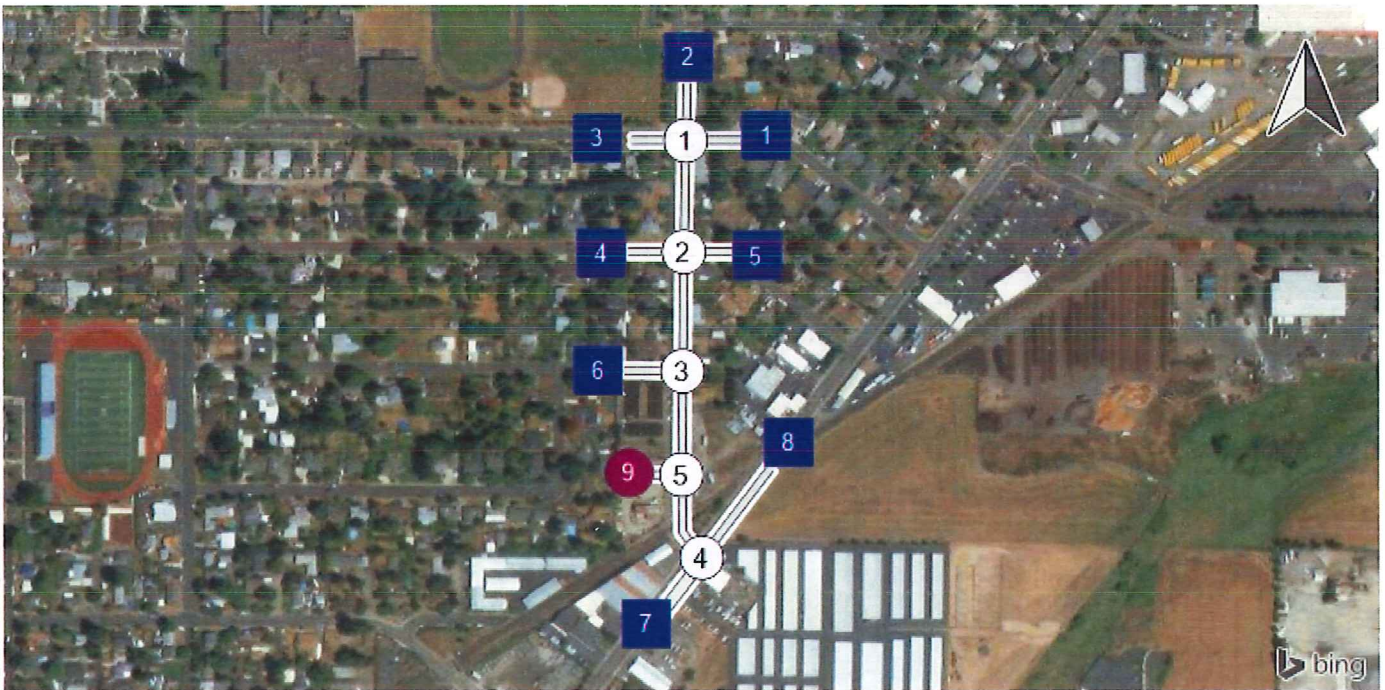
Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro
 Report File: J:\...\18-379 AM Developed.pdf

Scenario 3 AM Developed
 4/3/2018

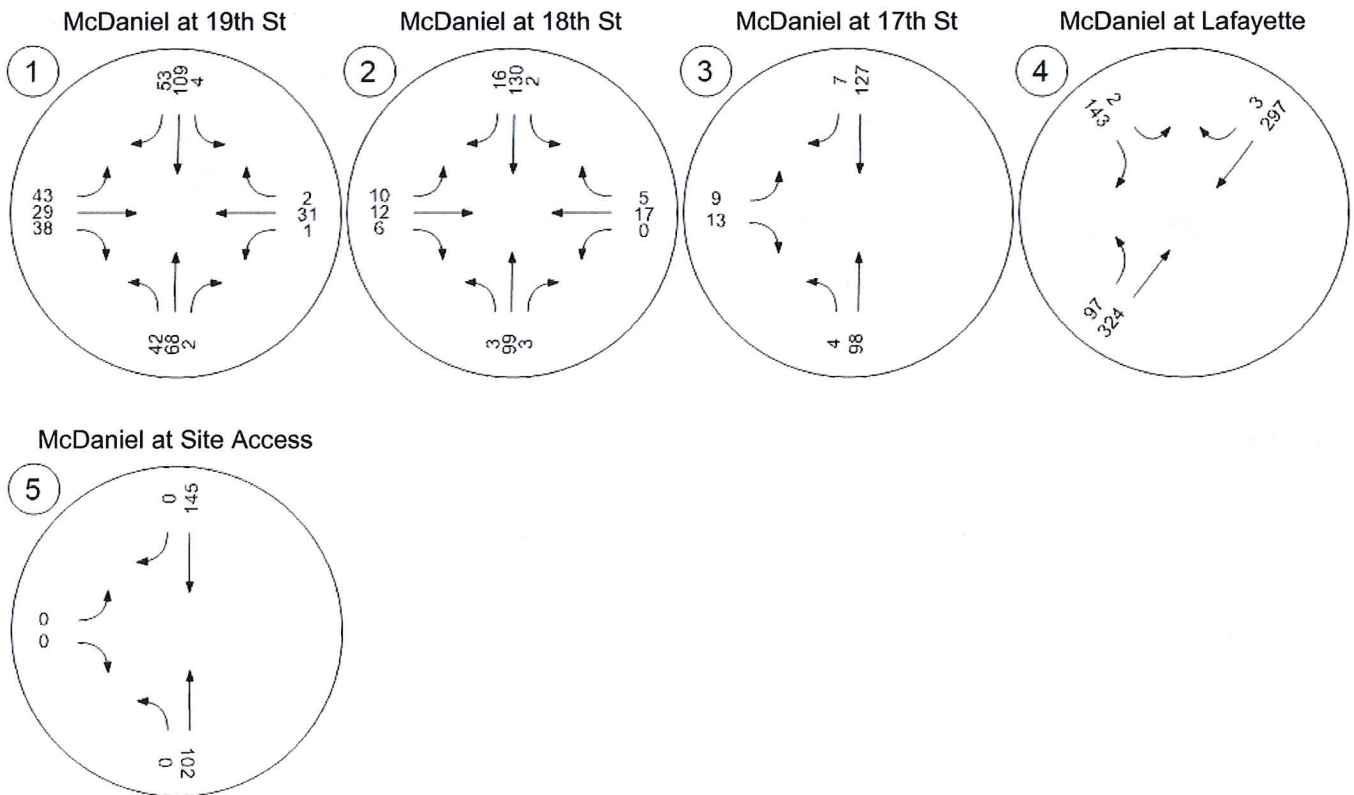
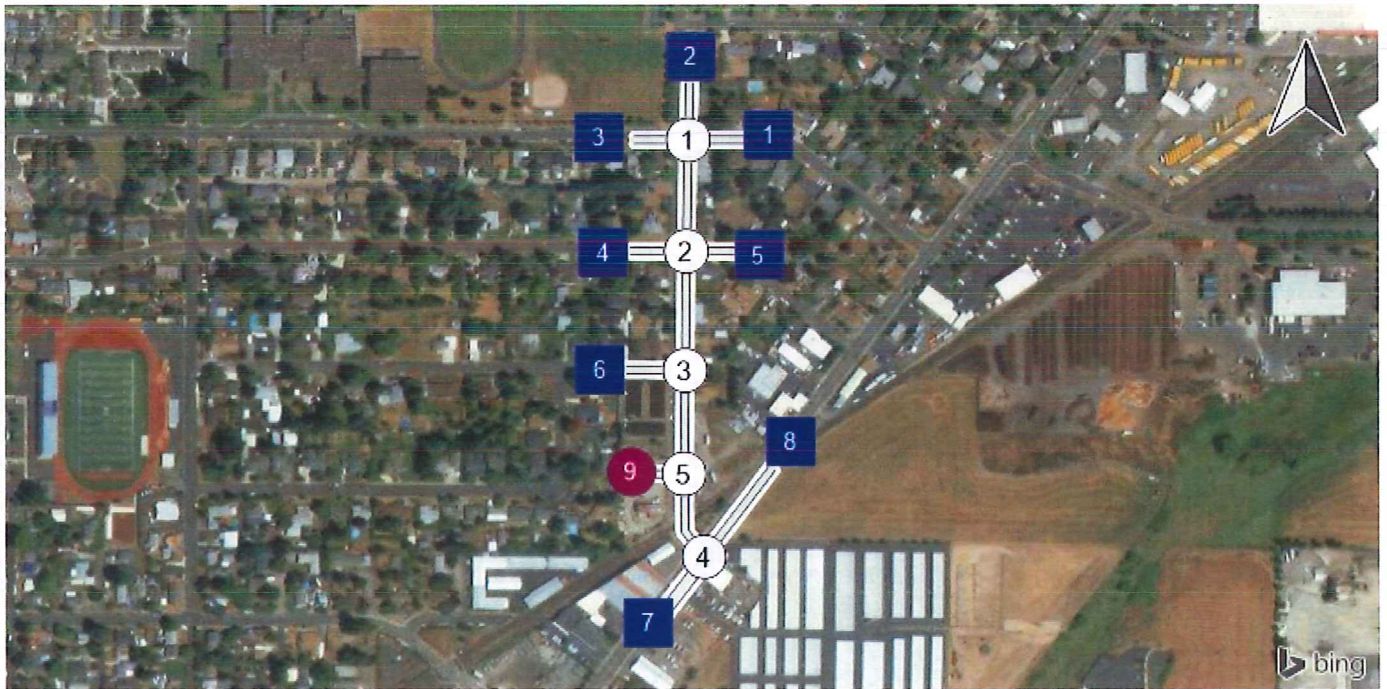
Trip Distribution summary

| Zone / Gate | Zone 9: McDaniel St Apts | | | |
|--------------|--------------------------|----------|------------------------|----------|
| | To McDaniel St Apts: | | From McDaniel St Apts: | |
| | Share % | Trips | Share % | Trips |
| 1: Gate | 10.00 | 0 | 10.00 | 1 |
| 2: Gate | 0.00 | 0 | 0.00 | 0 |
| 3: Gate | 20.00 | 1 | 20.00 | 2 |
| 4: Gate | 0.00 | 0 | 0.00 | 0 |
| 5: Gate | 0.00 | 0 | 0.00 | 0 |
| 6: Gate | 0.00 | 0 | 0.00 | 0 |
| 7: Gate | 40.00 | 1 | 40.00 | 5 |
| 8: Gate | 0.00 | 0 | 0.00 | 0 |
| Total | 70.00 | 2 | 70.00 | 8 |

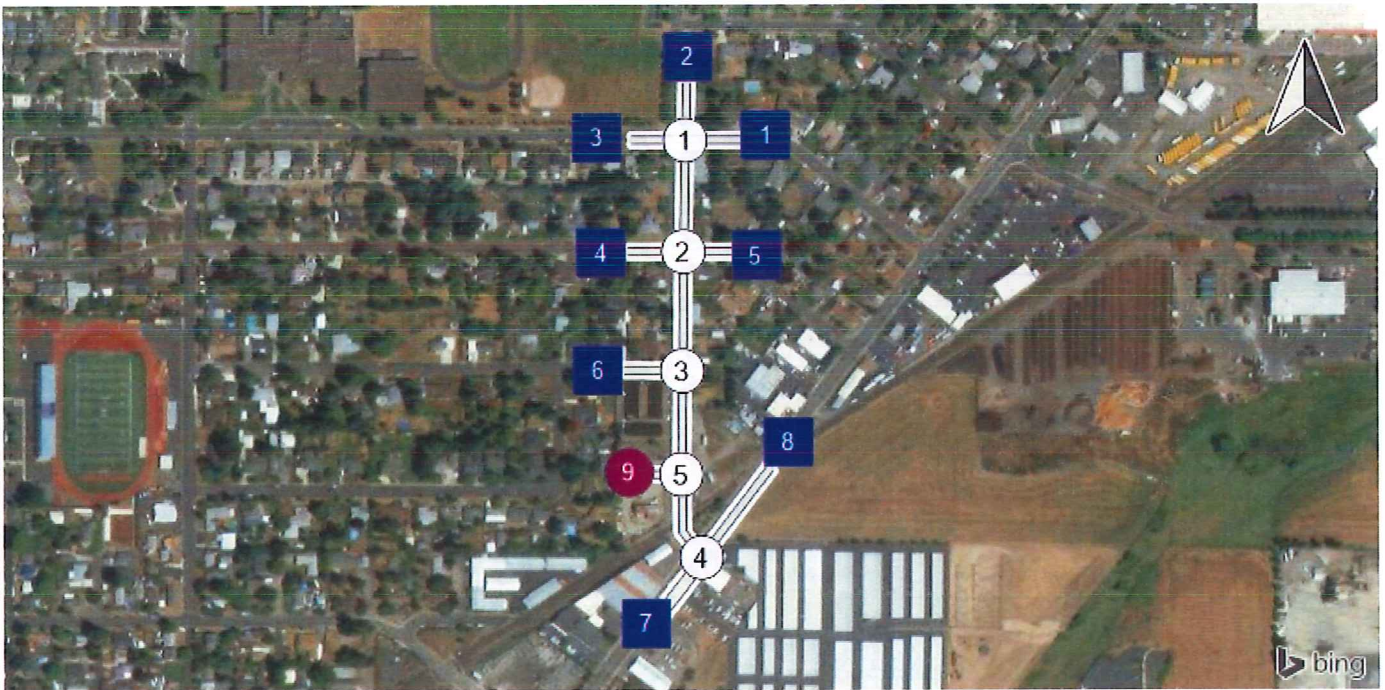
Report Figure 1: Lane Configuration and Traffic Control



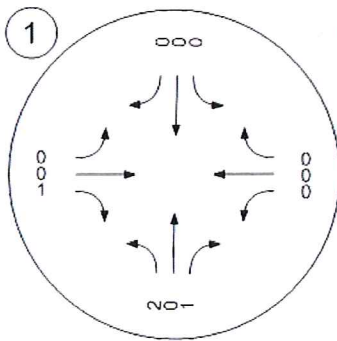
Report Figure 2a: Traffic Volume - Base Volume



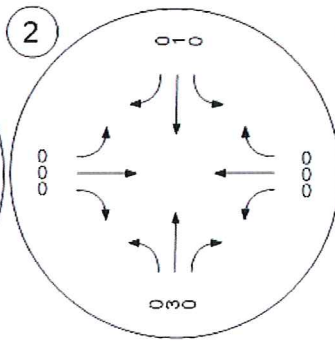
Report Figure 2d: Traffic Volume - Net New Site Trips



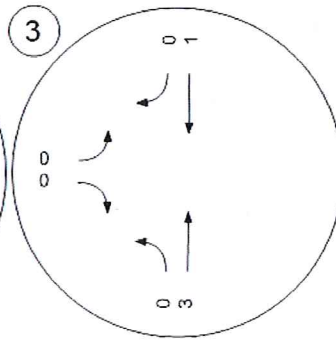
McDaniel at 19th St



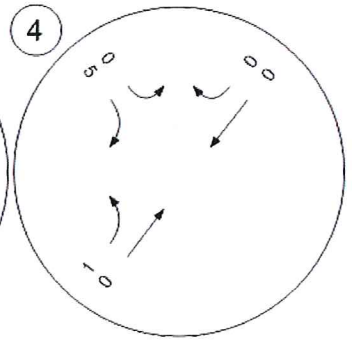
McDaniel at 18th St



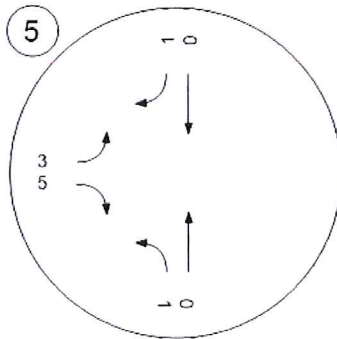
McDaniel at 17th St



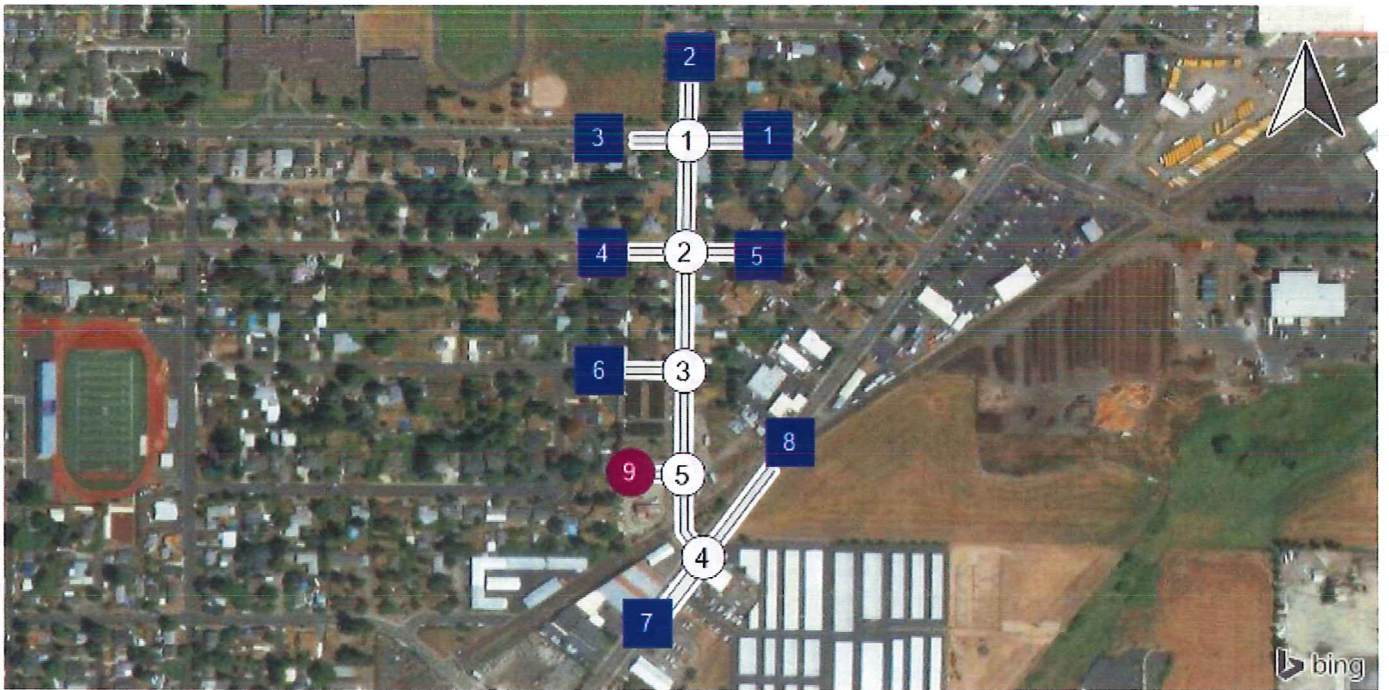
McDaniel at Lafayette



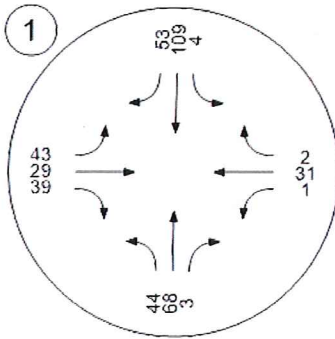
McDaniel at Site Access



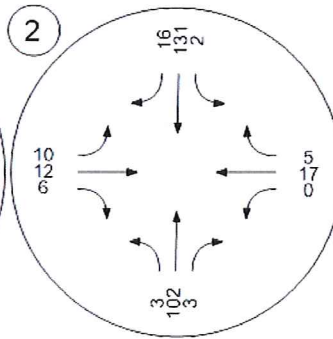
Report Figure 2f: Traffic Volume - Future Total Volume



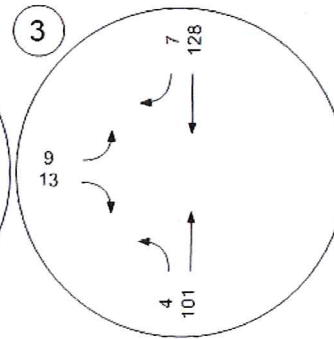
McDaniel at 19th St



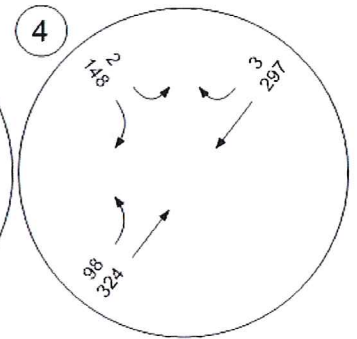
McDaniel at 18th St



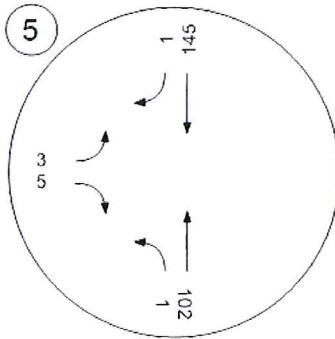
McDaniel at 17th St



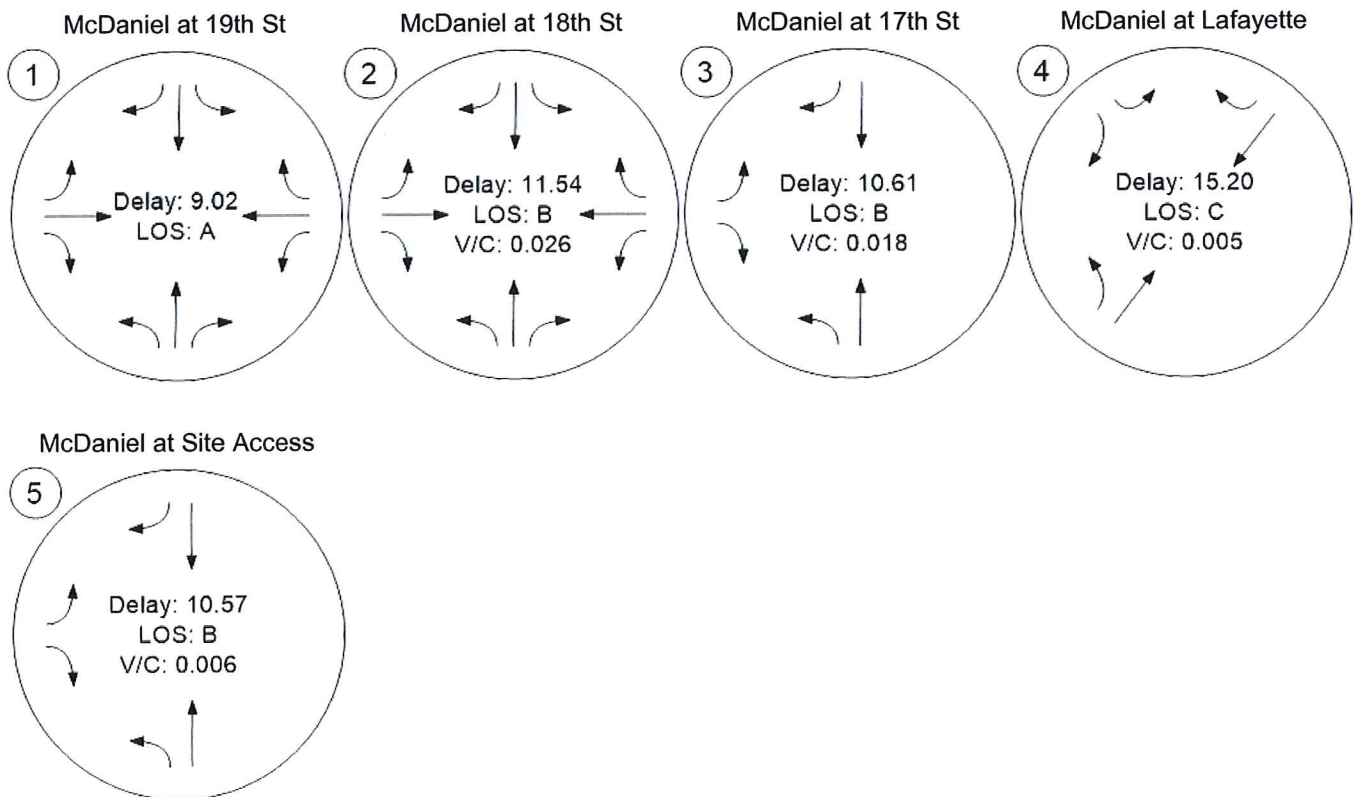
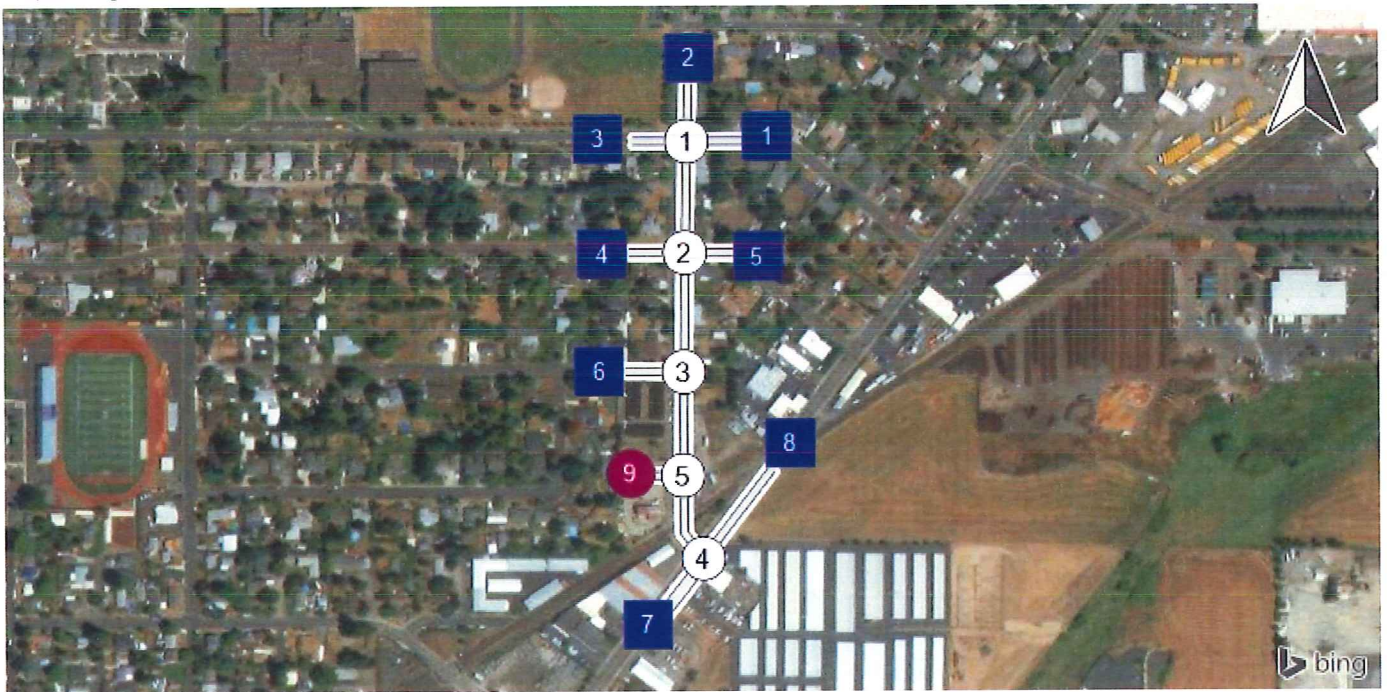
McDaniel at Lafayette



McDaniel at Site Access



Report Figure 3: Traffic Conditions



18-378 - 17th at McDaniels Apts TIA

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Report File: J:\...\18-379 PM Developed.pdf

Scenario 4 PM Developed
4/3/2018

Intersection Analysis Summary

| ID | Intersection Name | Control Type | Method | Worst Mvmt | V/C | Delay (s/veh) | LOS |
|----|-------------------------|--------------|-----------------|------------|-------|---------------|-----|
| 1 | McDaniel at 19th St | All-way stop | HCM 6th Edition | NB Thru | 0.243 | 8.9 | A |
| 2 | McDaniel at 18th St | Two-way stop | HCM 6th Edition | WB Thru | 0.025 | 11.8 | B |
| 3 | McDaniel at 17th St | Two-way stop | HCM 6th Edition | EB Left | 0.016 | 10.9 | B |
| 4 | McDaniel at Lafayette | Two-way stop | HCM 6th Edition | SEB Left | 0.008 | 22.5 | C |
| 5 | McDaniel at Site Access | Two-way stop | HCM 6th Edition | EB Left | 0.003 | 10.7 | B |

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. for all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: McDaniel at 19th St

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | All-way stop | Delay (sec / veh): | 8.9 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.243 |

Intersection Setup

| Name | McDaniel St | | | McDaniel St | | | 19th St | | | 19th St | | |
|------------------------|-------------|--------|--------|-------------|--------|--------|-----------|--------|--------|-----------|--------|--------|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | + | | | + | | | + | | | + | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 25.00 | | | 25.00 | | | 25.00 | | | 25.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

Volumes

| Name | McDaniel St | | | McDaniel St | | | 19th St | | | 19th St | | |
|---|-------------|--------|--------|-------------|--------|--------|---------|--------|--------|---------|--------|--------|
| Base Volume Input [veh/h] | 35 | 125 | 2 | 5 | 117 | 41 | 47 | 36 | 15 | 2 | 56 | 4 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 |
| Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 36 | 125 | 3 | 5 | 117 | 41 | 47 | 36 | 17 | 3 | 56 | 4 |
| Peak Hour Factor | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 10 | 36 | 1 | 1 | 34 | 12 | 14 | 10 | 5 | 1 | 16 | 1 |
| Total Analysis Volume [veh/h] | 41 | 144 | 3 | 6 | 134 | 47 | 54 | 41 | 20 | 3 | 64 | 5 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

Intersection Settings

Lanes

| | | | | |
|---------------------------------|------|------|------|------|
| Capacity per Entry Lane [veh/h] | 774 | 803 | 736 | 730 |
| Degree of Utilization, x | 0.24 | 0.23 | 0.16 | 0.10 |

Movement, Approach, & Intersection Results

| | | | | |
|------------------------------------|-------|-------|-------|------|
| 95th-Percentile Queue Length [veh] | 0.95 | 0.90 | 0.55 | 0.33 |
| 95th-Percentile Queue Length [ft] | 23.78 | 22.51 | 13.80 | 8.18 |
| Approach Delay [s/veh] | 9.14 | 8.84 | 8.80 | 8.47 |
| Approach LOS | A | A | A | A |
| Intersection Delay [s/veh] | 8.89 | | | |
| Intersection LOS | A | | | |

Intersection Level Of Service Report
Intersection 2: McDaniel at 18th St

Control Type: Two-way stop
Analysis Method: HCM 6th Edition
Analysis Period: 15 minutes

Delay (sec / veh): 11.8
Level Of Service: B
Volume to Capacity (v/c): 0.025

Intersection Setup

| Name | McDaniel St | | | McDaniel St | | | 18th St | | | 18th St | | |
|------------------------|-------------|--------|--------|-------------|--------|--------|-----------|--------|--------|-----------|--------|--------|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | + | | | + | | | + | | | + | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 25.00 | | | 25.00 | | | 25.00 | | | 25.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

Volumes

| Name | McDaniel St | | | McDaniel St | | | 18th St | | | 18th St | | |
|---|-------------|--------|--------|-------------|--------|--------|---------|--------|--------|---------|--------|--------|
| Base Volume Input [veh/h] | 5 | 141 | 2 | 3 | 143 | 4 | 7 | 5 | 8 | 7 | 12 | 11 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 |
| Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 5 | 143 | 2 | 3 | 146 | 4 | 7 | 5 | 8 | 7 | 12 | 11 |
| Peak Hour Factor | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 1 | 43 | 1 | 1 | 43 | 1 | 2 | 1 | 2 | 2 | 4 | 3 |
| Total Analysis Volume [veh/h] | 6 | 170 | 2 | 4 | 174 | 5 | 8 | 6 | 10 | 8 | 14 | 13 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

Intersection Settings

| | | | | |
|------------------------------------|------|------|------|------|
| Priority Scheme | Free | Free | Stop | Stop |
| Flared Lane | | | No | No |
| Storage Area [veh] | 0 | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 | 0 |

Movement, Approach, & Intersection Results

| | | | | | | | | | | | | |
|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|------|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | 0.03 | 0.01 |
| d_M, Delay for Movement [s/veh] | 7.60 | 0.00 | 0.00 | 7.58 | 0.00 | 0.00 | 11.73 | 11.70 | 9.38 | 11.70 | 11.83 | 9.46 |
| Movement LOS | A | A | A | A | A | A | B | B | A | B | B | A |
| 95th-Percentile Queue Length [veh] | 0.44 | 0.44 | 0.44 | 0.45 | 0.45 | 0.45 | 0.11 | 0.11 | 0.11 | 0.17 | 0.17 | 0.17 |
| 95th-Percentile Queue Length [ft] | 10.98 | 10.98 | 10.98 | 11.26 | 11.26 | 11.26 | 2.87 | 2.87 | 2.87 | 4.31 | 4.31 | 4.31 |
| d_A, Approach Delay [s/veh] | 0.26 | | | 0.17 | | | 10.75 | | | 10.92 | | |
| Approach LOS | A | | | A | | | B | | | B | | |
| d_I, Intersection Delay [s/veh] | 1.70 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |

Intersection Level Of Service Report
Intersection 3: McDaniel at 17th St

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | Two-way stop | Delay (sec / veh): | 10.9 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.016 |

Intersection Setup

| Name | McDaniel St | | McDaniel St | | 17th St | |
|------------------------|-------------|--------|-------------|--------|-----------|--------|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | Yes | | Yes | |

Volumes

| Name | McDaniel St | | McDaniel St | | 17th St | |
|---|-------------|--------|-------------|--------|---------|--------|
| Base Volume Input [veh/h] | 15 | 144 | 144 | 12 | 9 | 2 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 |
| Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 2 | 3 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 15 | 146 | 147 | 12 | 9 | 2 |
| Peak Hour Factor | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 4 | 42 | 42 | 3 | 3 | 1 |
| Total Analysis Volume [veh/h] | 17 | 168 | 169 | 14 | 10 | 2 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

Intersection Settings

| Priority Scheme | Free | Free | Stop |
|------------------------------------|------|------|------|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

Movement, Approach, & Intersection Results

| | | | | | | |
|------------------------------------|-------|-------|------|------|-------|------|
| V/C, Movement V/C Ratio | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 |
| d_M, Delay for Movement [s/veh] | 7.60 | 0.00 | 0.00 | 0.00 | 10.93 | 9.24 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh] | 0.46 | 0.46 | 0.00 | 0.00 | 0.06 | 0.06 |
| 95th-Percentile Queue Length [ft] | 11.38 | 11.38 | 0.00 | 0.00 | 1.41 | 1.41 |
| d_A, Approach Delay [s/veh] | 0.70 | | 0.00 | | 10.65 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.68 | | | | | |
| Intersection LOS | B | | | | | |

Intersection Level Of Service Report
Intersection 4: McDaniel at Lafayette

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | Two-way stop | Delay (sec / veh): | 22.5 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.008 |

Intersection Setup

| Name | Lafayette Ave | | Lafayette Ave | | McDaniel St | |
|------------------------|----------------|--------|----------------|--------|----------------|--------|
| Approach | Northeastbound | | Southwestbound | | Southeastbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | Yes | | Yes | |

Volumes

| Name | Lafayette Ave | | Lafayette Ave | | McDaniel St | |
|---|---------------|--------|---------------|--------|-------------|--------|
| Base Volume Input [veh/h] | 138 | 486 | 622 | 12 | 2 | 127 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 |
| Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 5 | 0 | 0 | 0 | 0 | 2 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 143 | 486 | 622 | 12 | 2 | 129 |
| Peak Hour Factor | 0.9000 | 0.9000 | 0.9000 | 0.9000 | 0.9000 | 0.9000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 40 | 135 | 173 | 3 | 1 | 36 |
| Total Analysis Volume [veh/h] | 159 | 540 | 691 | 13 | 2 | 143 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

Intersection Settings

| | | | |
|------------------------------------|------|------|------|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | Yes |
| Storage Area [veh] | 0 | 0 | 2 |
| Two-Stage Gap Acceptance | | | Yes |
| Number of Storage Spaces in Median | 0 | 0 | 2 |

Movement, Approach, & Intersection Results

| | | | | | | |
|------------------------------------|-------|------|------|------|-------|-------|
| V/C, Movement V/C Ratio | 0.18 | 0.01 | 0.01 | 0.00 | 0.01 | 0.33 |
| d_M, Delay for Movement [s/veh] | 9.94 | 0.00 | 0.00 | 0.00 | 22.52 | 17.08 |
| Movement LOS | A | A | A | A | C | C |
| 95th-Percentile Queue Length [veh] | 0.65 | 0.00 | 0.00 | 0.00 | 1.40 | 1.40 |
| 95th-Percentile Queue Length [ft] | 16.25 | 0.00 | 0.00 | 0.00 | 34.98 | 34.98 |
| d_A, Approach Delay [s/veh] | 2.26 | | 0.00 | | 17.15 | |
| Approach LOS | A | | A | | C | |
| d_I, Intersection Delay [s/veh] | 2.63 | | | | | |
| Intersection LOS | C | | | | | |

Intersection Level Of Service Report
Intersection 5: McDaniel at Site Access

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | Two-way stop | Delay (sec / veh): | 10.7 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.003 |

Intersection Setup

| Name | McDaniel St | | McDaniel St | | Site Access | |
|------------------------|-------------|--------|-------------|--------|-------------|--------|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration | ↰ | | ↱ | | ↔ | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 25.00 | | 25.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | Yes | | Yes | |

Volumes

| Name | McDaniel St | | McDaniel St | | Site Access | |
|---|-------------|--------|-------------|--------|-------------|--------|
| Base Volume Input [veh/h] | 0 | 159 | 146 | 0 | 0 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 |
| Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 5 | 0 | 0 | 3 | 2 | 2 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 5 | 159 | 146 | 3 | 2 | 2 |
| Peak Hour Factor | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 1 | 46 | 42 | 1 | 1 | 1 |
| Total Analysis Volume [veh/h] | 6 | 183 | 168 | 3 | 2 | 2 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

Intersection Settings

| Priority Scheme | Free | Free | Stop |
|------------------------------------|------|------|------|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

Movement, Approach, & Intersection Results

| | | | | | | |
|------------------------------------|-------|-------|------|------|-------|------|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh] | 7.56 | 0.00 | 0.00 | 0.00 | 10.70 | 9.13 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh] | 0.46 | 0.46 | 0.00 | 0.00 | 0.02 | 0.02 |
| 95th-Percentile Queue Length [ft] | 11.53 | 11.53 | 0.00 | 0.00 | 0.41 | 0.41 |
| d_A, Approach Delay [s/veh] | 0.24 | | 0.00 | | 9.91 | |
| Approach LOS | A | | A | | A | |
| d_I, Intersection Delay [s/veh] | 0.23 | | | | | |
| Intersection LOS | B | | | | | |

18-378 - 17th at McDaniels Apts TIA

Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro

Scenario 4 PM Developed

Report File: J:\...\18-379 PM Developed.pdf

4/3/2018

Turning Movement Volume: Summary

| ID | Intersection Name | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume |
|----|---------------------|------------|------|-------|------------|------|-------|-----------|------|-------|-----------|------|-------|--------------|
| | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 1 | McDaniel at 19th St | 36 | 125 | 3 | 5 | 117 | 41 | 47 | 36 | 17 | 3 | 56 | 4 | 490 |

| ID | Intersection Name | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume |
|----|---------------------|------------|------|-------|------------|------|-------|-----------|------|-------|-----------|------|-------|--------------|
| | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 2 | McDaniel at 18th St | 5 | 143 | 2 | 3 | 146 | 4 | 7 | 5 | 8 | 7 | 12 | 11 | 353 |

| ID | Intersection Name | Northbound | | Southbound | | Eastbound | | Total Volume |
|----|---------------------|------------|------|------------|-------|-----------|-------|--------------|
| | | Left | Thru | Thru | Right | Left | Right | |
| 3 | McDaniel at 17th St | 15 | 146 | 147 | 12 | 9 | 2 | 331 |

| ID | Intersection Name | Northeastbound | | Southwestbound | | Southeastbound | | Total Volume |
|----|-----------------------|----------------|------|----------------|-------|----------------|-------|--------------|
| | | Left | Thru | Thru | Right | Left | Right | |
| 4 | McDaniel at Lafayette | 143 | 486 | 622 | 12 | 2 | 129 | 1394 |

| ID | Intersection Name | Northbound | | Southbound | | Eastbound | | Total Volume |
|----|-------------------------|------------|------|------------|-------|-----------|-------|--------------|
| | | Left | Thru | Thru | Right | Left | Right | |
| 5 | McDaniel at Site Access | 5 | 159 | 146 | 3 | 2 | 2 | 317 |

18-378 - 17th at McDaniels Apts TIA

Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro
Report File: J:\...\18-379 PM Developed.pdf

Scenario 4 PM Developed
4/3/2018

Turning Movement Volume: Detail

| ID | Intersection Name | Volume Type | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume | |
|----|---------------------|---------------------|------------|------------|----------|------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|----------|--------------|---|
| | | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | | |
| 1 | McDaniel at 19th St | Final Base | 35 | 125 | 2 | 5 | 117 | 41 | 47 | 36 | 15 | 2 | 56 | 4 | 485 | |
| | | Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | - | |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | Net New Trips | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 5 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 36 | 125 | 3 | 5 | 117 | 41 | 47 | 36 | 17 | 3 | 56 | 4 | 490 | |

| ID | Intersection Name | Volume Type | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume | |
|----|---------------------|---------------------|------------|------------|----------|------------|------------|----------|-----------|----------|----------|-----------|-----------|-----------|--------------|---|
| | | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | | |
| 2 | McDaniel at 18th St | Final Base | 5 | 141 | 2 | 3 | 143 | 4 | 7 | 5 | 8 | 7 | 12 | 11 | 348 | |
| | | Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | - | |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | Net New Trips | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 5 | 143 | 2 | 3 | 146 | 4 | 7 | 5 | 8 | 7 | 12 | 11 | 353 | |

| ID | Intersection Name | Volume Type | Northbound | | Southbound | | Eastbound | | Total Volume |
|----|---------------------|---------------------|------------|------------|------------|-----------|-----------|----------|--------------|
| | | | Left | Thru | Thru | Right | Left | Right | |
| 3 | McDaniel at 17th St | Final Base | 15 | 144 | 144 | 12 | 9 | 2 | 326 |
| | | Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | - |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Net New Trips | 0 | 2 | 3 | 0 | 0 | 0 | 5 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 15 | 146 | 147 | 12 | 9 | 2 | 331 |

| ID | Intersection Name | Volume Type | Northeastbound | | Southwestbound | | Southeastbound | | Total Volume |
|----|-----------------------|---------------------|----------------|------------|----------------|-----------|----------------|------------|--------------|
| | | | Left | Thru | Thru | Right | Left | Right | |
| 4 | McDaniel at Lafayette | Final Base | 138 | 486 | 622 | 12 | 2 | 127 | 1387 |
| | | Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | - |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Net New Trips | 5 | 0 | 0 | 0 | 0 | 2 | 7 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 143 | 486 | 622 | 12 | 2 | 129 | 1394 |

| ID | Intersection Name | Volume Type | Northbound | | Southbound | | Eastbound | | Total Volume |
|----|-------------------------|---------------------|------------|------------|------------|----------|-----------|----------|--------------|
| | | | Left | Thru | Thru | Right | Left | Right | |
| 5 | McDaniel at Site Access | Final Base | 0 | 159 | 146 | 0 | 0 | 0 | 305 |
| | | Growth Rate | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | - |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Net New Trips | 5 | 0 | 0 | 3 | 2 | 2 | 12 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 5 | 159 | 146 | 3 | 2 | 2 | 317 |

18-378 - 17th at McDaniels Apts TIA

Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro
 Report File: J:\...\18-379 PM Developed.pdf

Scenario 4 PM Developed
 4/3/2018

Trip Generation summary

Added Trips

| Zone ID: Name | Land Use variables | Code | Ind. Var. | Rate | Quantity | % In | % Out | Trips In | Trips Out | Total Trips | % of Total Trips |
|--------------------------|--------------------|---------|----------------|-------|----------|-------|-------|-----------|-----------|-------------|------------------|
| 9: McDaniel St Apts | Apartments | ITE 220 | Apartment Unit | 0.620 | 29.000 | 65.00 | 35.00 | 12 | 6 | 18 | 100.00 |
| Added Trips Total | | | | | | | | 12 | 6 | 18 | 100.00 |

18-378 - 17th at McDaniels Apts TIA

Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro

Scenario 4 PM Developed

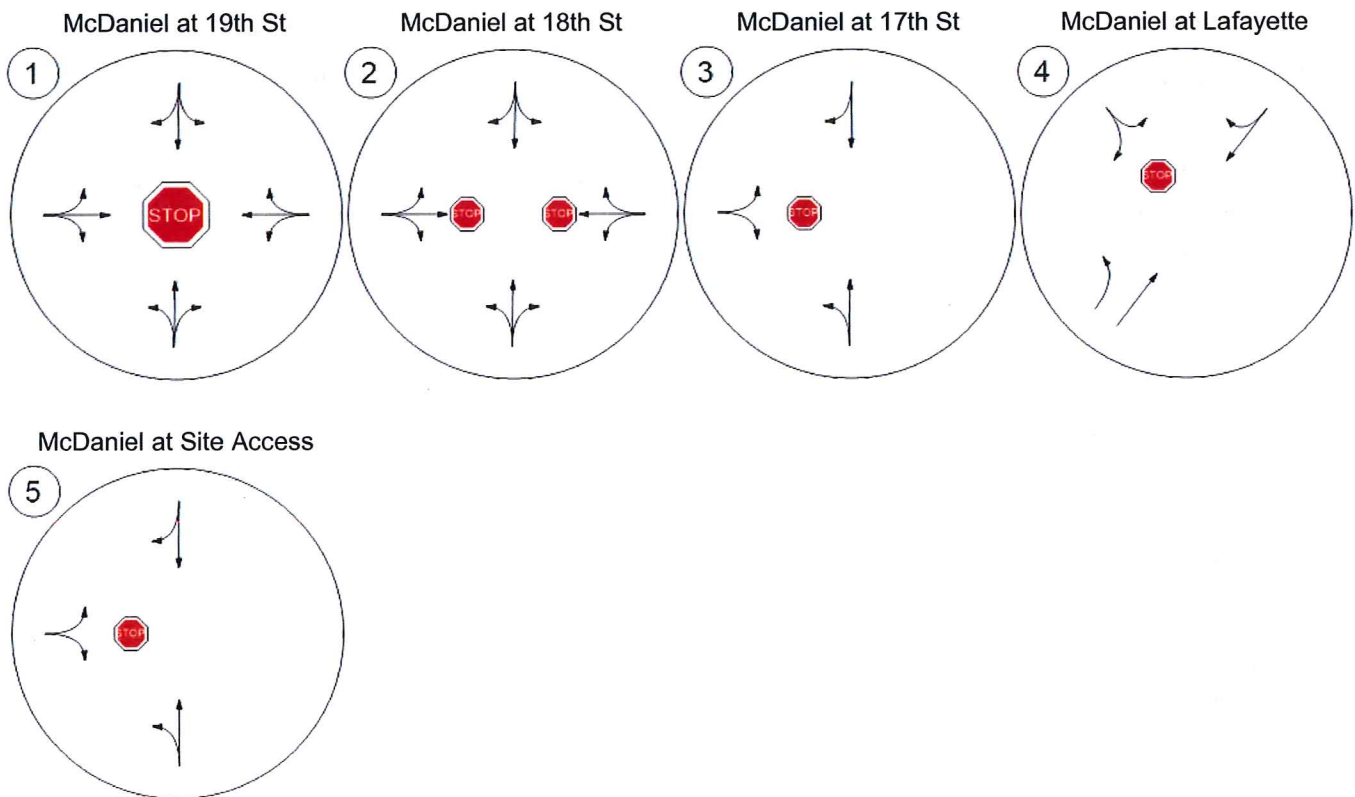
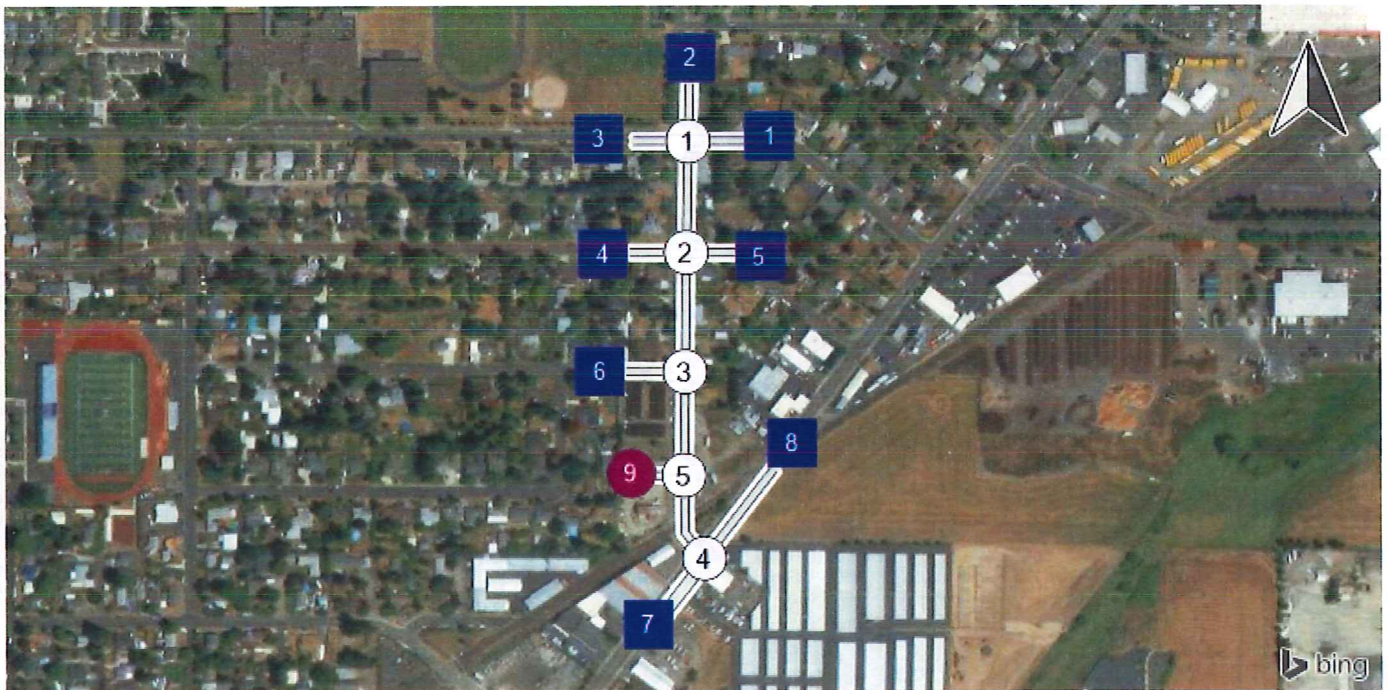
Report File: J:\...\18-379 PM Developed.pdf

4/3/2018

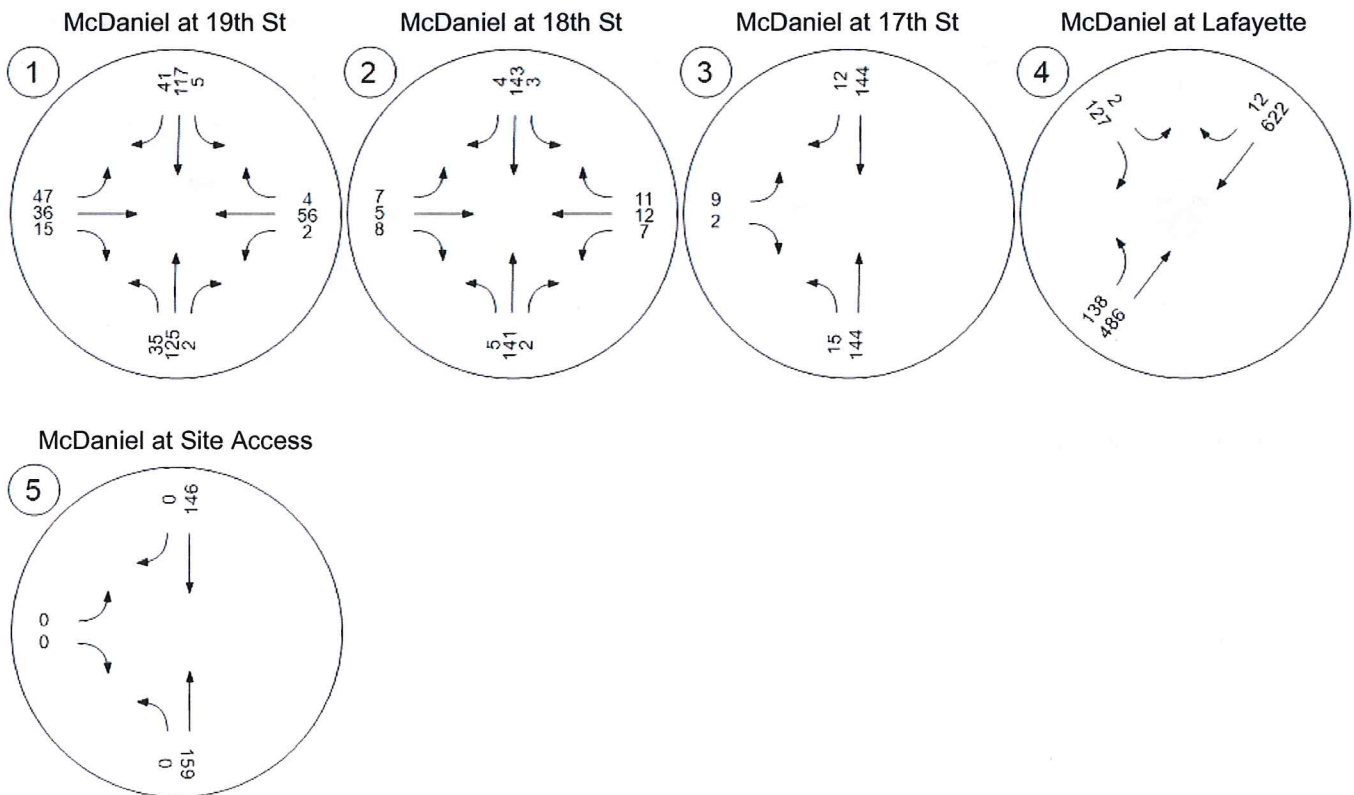
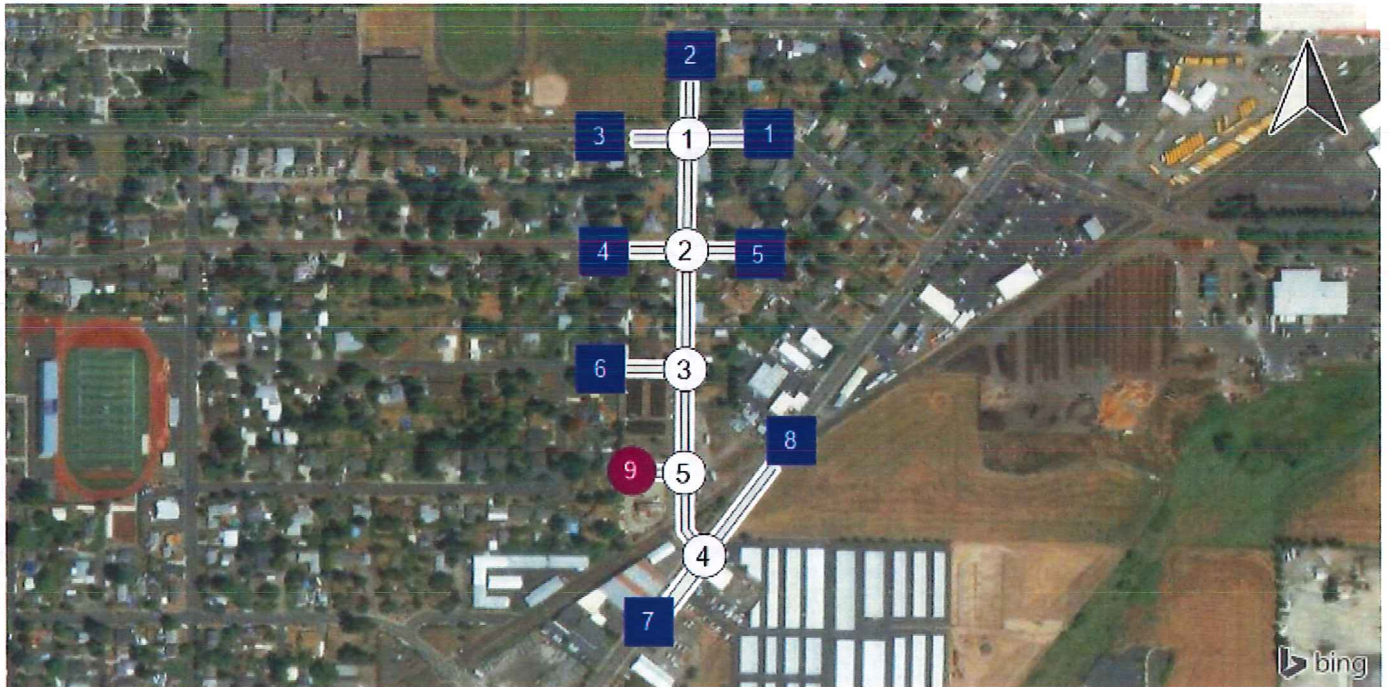
Trip Distribution summary

| Zone / Gate | Zone 9: McDaniel St Apts | | | |
|--------------|--------------------------|----------|------------------------|----------|
| | To McDaniel St Apts: | | From McDaniel St Apts: | |
| | Share % | Trips | Share % | Trips |
| 1: Gate | 10.00 | 1 | 10.00 | 1 |
| 2: Gate | 0.00 | 0 | 0.00 | 0 |
| 3: Gate | 20.00 | 2 | 20.00 | 1 |
| 4: Gate | 0.00 | 0 | 0.00 | 0 |
| 5: Gate | 0.00 | 0 | 0.00 | 0 |
| 6: Gate | 0.00 | 0 | 0.00 | 0 |
| 7: Gate | 40.00 | 5 | 40.00 | 2 |
| 8: Gate | 0.00 | 0 | 0.00 | 0 |
| Total | 70.00 | 8 | 70.00 | 4 |

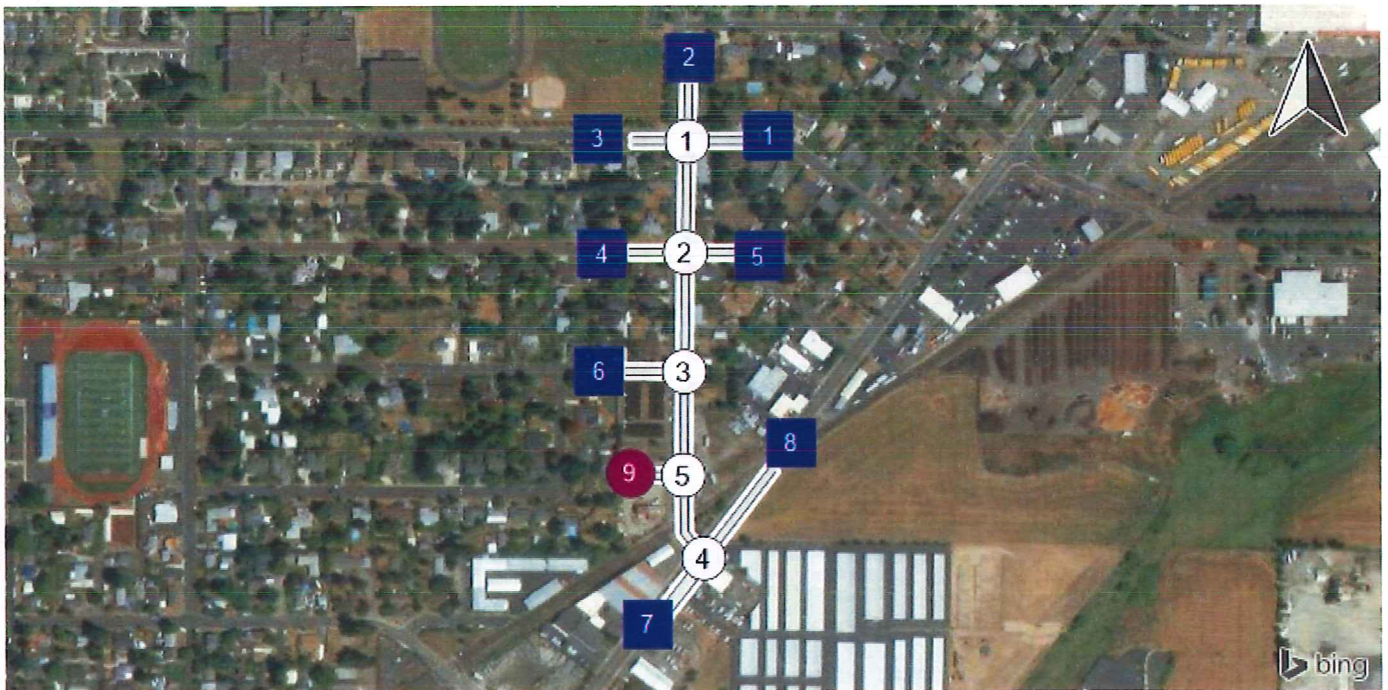
Report Figure 1: Lane Configuration and Traffic Control



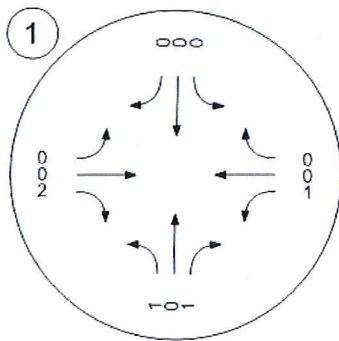
Report Figure 2a: Traffic Volume - Base Volume



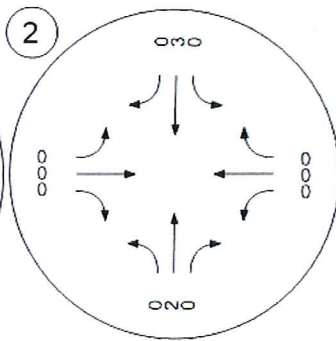
Report Figure 2d: Traffic Volume - Net New Site Trips



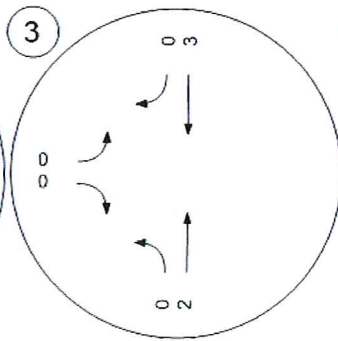
McDaniel at 19th St



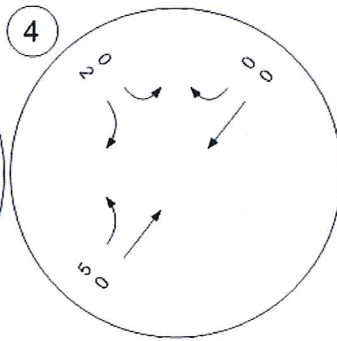
McDaniel at 18th St



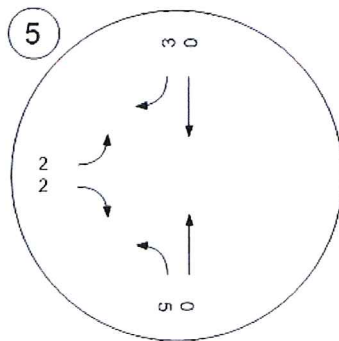
McDaniel at 17th St



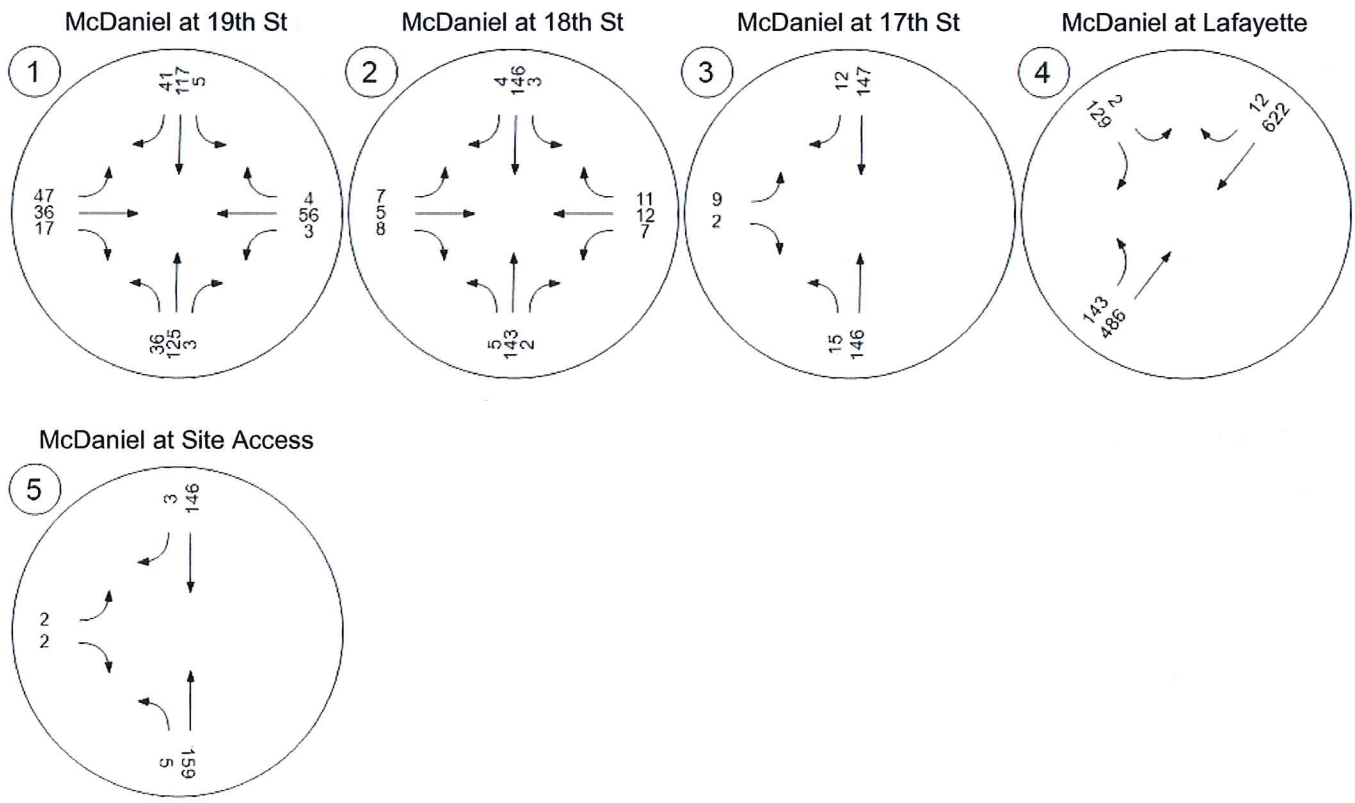
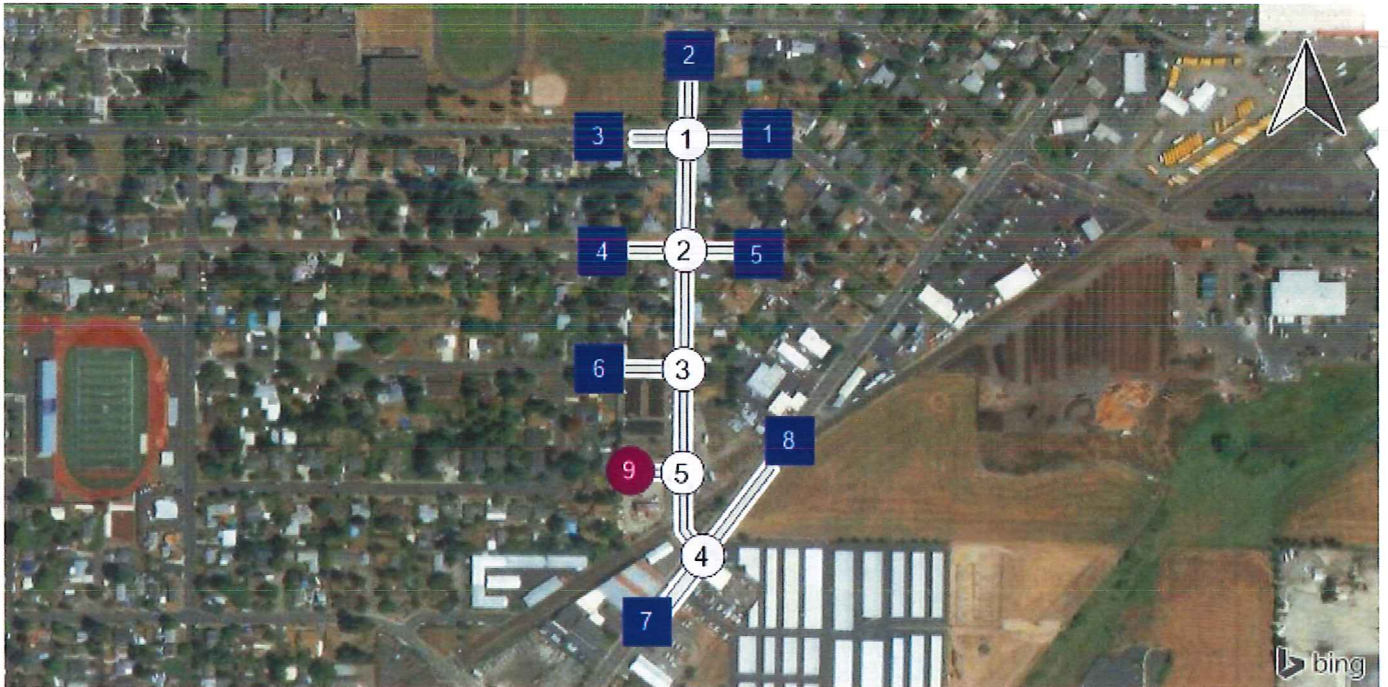
McDaniel at Lafayette



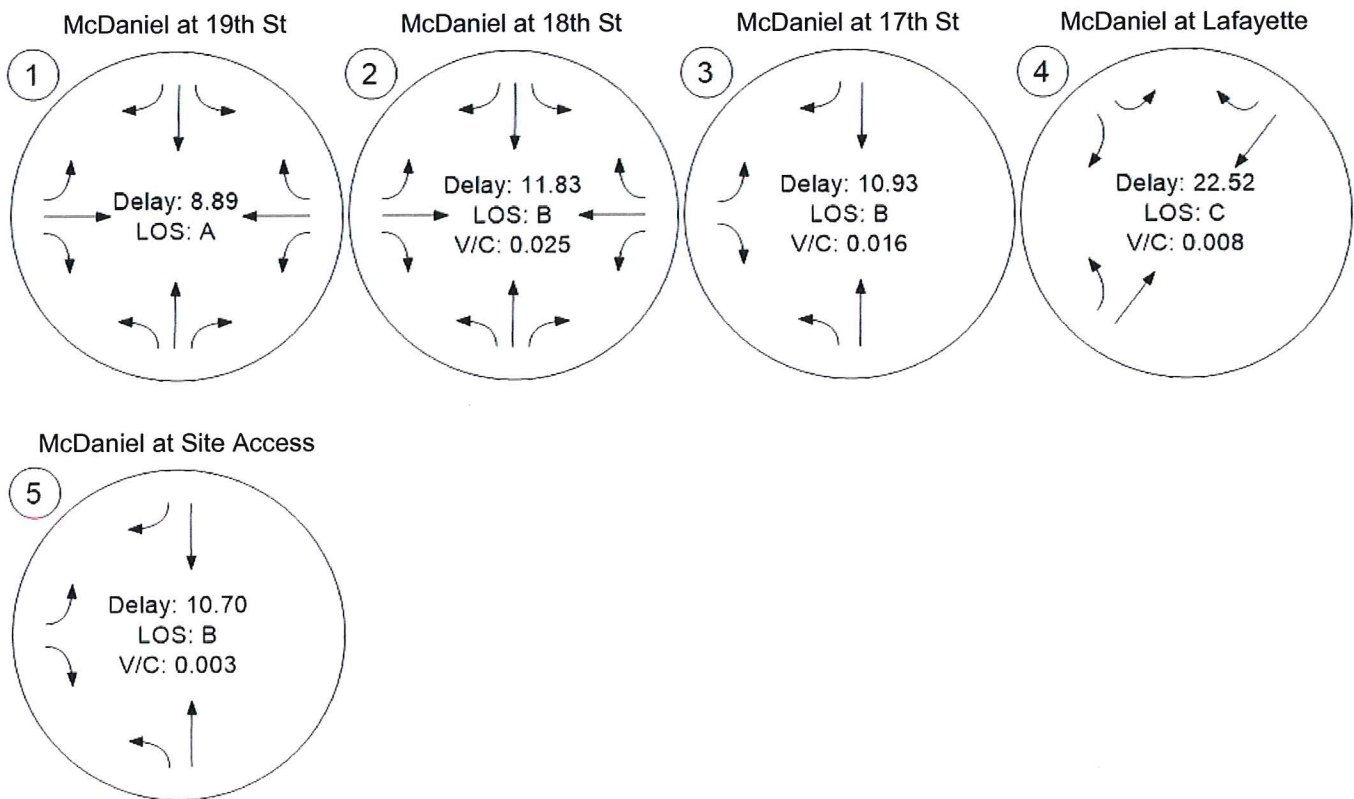
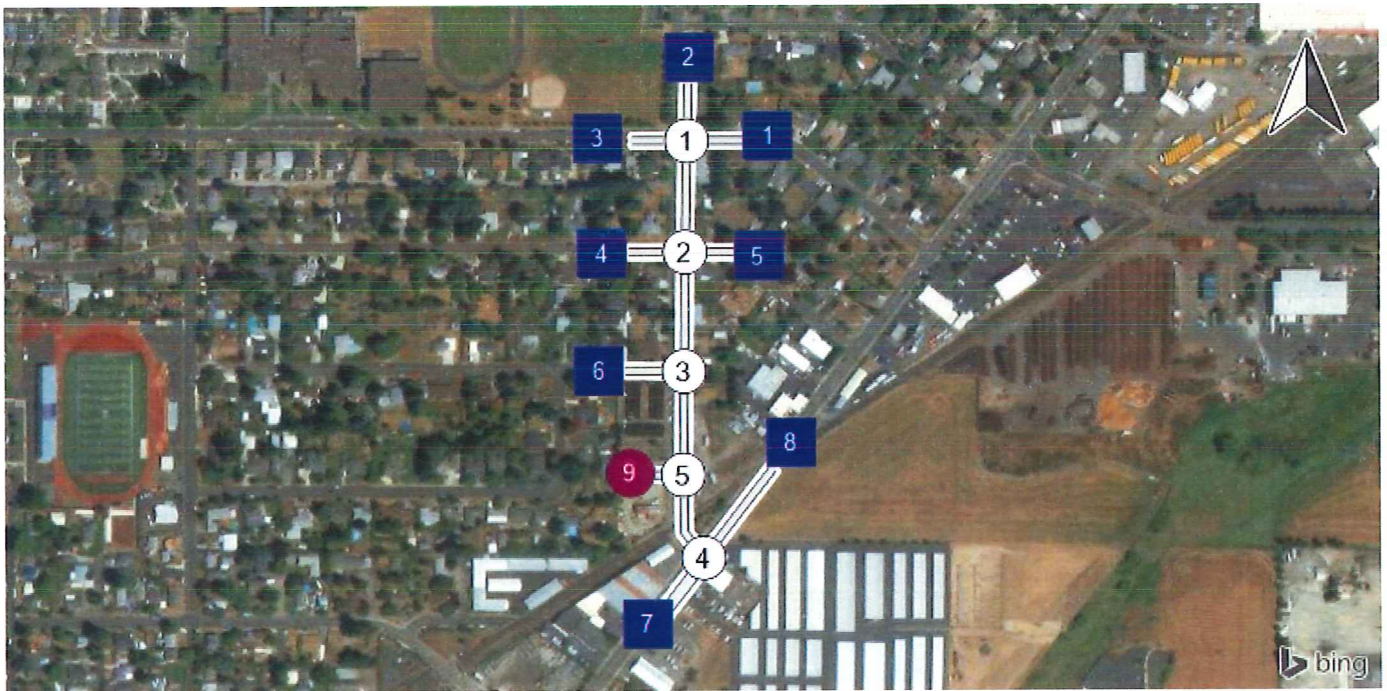
McDaniel at Site Access



Report Figure 2f: Traffic Volume - Future Total Volume



Report Figure 3: Traffic Conditions



18-378 - 17th at McDaniels Apts TIA

Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro
Report File: J:\...\18-379 AM Future 2028.pdf

Scenario 5 AM Future - 2028
4/3/2018

Intersection Analysis Summary

| ID | Intersection Name | Control Type | Method | Worst Mvmt | V/C | Delay (s/veh) | LOS |
|----|-------------------------|--------------|-----------------|------------|-------|---------------|-----|
| 1 | McDaniel at 19th St | All-way stop | HCM 6th Edition | SB Thru | 0.307 | 9.4 | A |
| 2 | McDaniel at 18th St | Two-way stop | HCM 6th Edition | EB Left | 0.025 | 12.0 | B |
| 3 | McDaniel at 17th St | Two-way stop | HCM 6th Edition | EB Left | 0.022 | 10.9 | B |
| 4 | McDaniel at Lafayette | Two-way stop | HCM 6th Edition | SEB Left | 0.005 | 16.4 | C |
| 5 | McDaniel at Site Access | Two-way stop | HCM 6th Edition | EB Left | 0.006 | 10.8 | B |

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. for all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: McDaniel at 19th St

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | All-way stop | Delay (sec / veh): | 9.4 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.307 |

Intersection Setup

| Name | McDaniel St | | | McDaniel St | | | 19th St | | | 19th St | | |
|------------------------|-------------|--------|--------|-------------|--------|--------|-----------|--------|--------|-----------|--------|--------|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | + | | | + | | | + | | | + | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 25.00 | | | 25.00 | | | 25.00 | | | 25.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

Volumes

| Name | McDaniel St | | | McDaniel St | | | 19th St | | | 19th St | | |
|---|-------------|--------|--------|-------------|--------|--------|---------|--------|--------|---------|--------|--------|
| Base Volume Input [veh/h] | 42 | 68 | 2 | 4 | 109 | 53 | 43 | 29 | 38 | 1 | 31 | 2 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 | 4.70 |
| Growth Rate | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 48 | 75 | 3 | 4 | 120 | 58 | 47 | 32 | 43 | 1 | 34 | 2 |
| Peak Hour Factor | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 | 0.7500 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 16 | 25 | 1 | 1 | 40 | 19 | 16 | 11 | 14 | 0 | 11 | 1 |
| Total Analysis Volume [veh/h] | 64 | 100 | 4 | 5 | 160 | 77 | 63 | 43 | 57 | 1 | 45 | 3 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

Intersection Settings

Lanes

| | | | | |
|---------------------------------|------|------|------|------|
| Capacity per Entry Lane [veh/h] | 737 | 789 | 734 | 695 |
| Degree of Utilization, x | 0.23 | 0.31 | 0.22 | 0.07 |

Movement, Approach, & Intersection Results

| | | | | |
|------------------------------------|-------|-------|-------|------|
| 95th-Percentile Queue Length [veh] | 0.88 | 1.30 | 0.85 | 0.23 |
| 95th-Percentile Queue Length [ft] | 21.89 | 32.55 | 21.17 | 5.67 |
| Approach Delay [s/veh] | 9.33 | 9.57 | 9.30 | 8.57 |
| Approach LOS | A | A | A | A |
| Intersection Delay [s/veh] | 9.35 | | | |
| Intersection LOS | A | | | |

Intersection Level Of Service Report
Intersection 2: McDaniel at 18th St

Control Type: Two-way stop
Analysis Method: HCM 6th Edition
Analysis Period: 15 minutes

Delay (sec / veh): 12.0
Level Of Service: B
Volume to Capacity (v/c): 0.025

Intersection Setup

| Name | McDaniel St | | | McDaniel St | | | 18th St | | | 18th St | | |
|------------------------|-------------|--------|--------|-------------|--------|--------|-----------|--------|--------|-----------|--------|--------|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | + | | | + | | | + | | | + | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 25.00 | | | 25.00 | | | 25.00 | | | 25.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

Volumes

| Name | McDaniel St | | | McDaniel St | | | 18th St | | | 18th St | | |
|---|-------------|--------|--------|-------------|--------|--------|---------|--------|--------|---------|--------|--------|
| Base Volume Input [veh/h] | 3 | 99 | 3 | 2 | 130 | 16 | 10 | 12 | 6 | 0 | 17 | 5 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 |
| Growth Rate | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 3 | 112 | 3 | 2 | 144 | 18 | 11 | 13 | 7 | 0 | 19 | 6 |
| Peak Hour Factor | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 | 0.7800 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 1 | 36 | 1 | 1 | 46 | 6 | 4 | 4 | 2 | 0 | 6 | 2 |
| Total Analysis Volume [veh/h] | 4 | 144 | 4 | 3 | 185 | 23 | 14 | 17 | 9 | 0 | 24 | 8 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

Intersection Settings

| | | | | |
|------------------------------------|------|------|------|------|
| Priority Scheme | Free | Free | Stop | Stop |
| Flared Lane | | | No | No |
| Storage Area [veh] | 0 | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 | 0 |

Movement, Approach, & Intersection Results

| | | | | | | | | | | | | |
|------------------------------------|------|------|------|-------|-------|-------|-------|-------|------|-------|-------|------|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.03 | 0.01 | 0.00 | 0.04 | 0.01 |
| d_M, Delay for Movement [s/veh] | 7.69 | 0.00 | 0.00 | 7.56 | 0.00 | 0.00 | 11.96 | 11.87 | 9.74 | 11.78 | 11.85 | 9.37 |
| Movement LOS | A | A | A | A | A | A | B | B | A | B | B | A |
| 95th-Percentile Queue Length [veh] | 0.38 | 0.38 | 0.38 | 0.53 | 0.53 | 0.53 | 0.21 | 0.21 | 0.21 | 0.17 | 0.17 | 0.17 |
| 95th-Percentile Queue Length [ft] | 9.57 | 9.57 | 9.57 | 13.15 | 13.15 | 13.15 | 5.34 | 5.34 | 5.34 | 4.14 | 4.14 | 4.14 |
| d_A, Approach Delay [s/veh] | 0.20 | | | 0.11 | | | 11.42 | | | 11.23 | | |
| Approach LOS | A | | | A | | | B | | | B | | |
| d_I, Intersection Delay [s/veh] | 2.00 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |

Intersection Level Of Service Report
Intersection 3: McDaniel at 17th St

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | Two-way stop | Delay (sec / veh): | 10.9 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.022 |

Intersection Setup

| Name | McDaniel St | | McDaniel St | | 17th St | |
|------------------------|-------------|--------|-------------|--------|-----------|--------|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration | ←↑ | | ↑→ | | ←↑→ | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | Yes | | Yes | |

Volumes

| Name | McDaniel St | | McDaniel St | | 17th St | |
|---|-------------|--------|-------------|--------|---------|--------|
| Base Volume Input [veh/h] | 4 | 98 | 127 | 7 | 9 | 13 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 3.86 | 3.86 | 3.86 | 3.86 | 3.86 | 3.86 |
| Growth Rate | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 3 | 1 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 4 | 111 | 141 | 8 | 10 | 14 |
| Peak Hour Factor | 0.7400 | 0.7400 | 0.7400 | 0.7400 | 0.7400 | 0.7400 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 1 | 38 | 48 | 3 | 3 | 5 |
| Total Analysis Volume [veh/h] | 5 | 150 | 191 | 11 | 14 | 19 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

Intersection Settings

| Priority Scheme | Free | Free | Stop |
|------------------------------------|------|------|------|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

Movement, Approach, & Intersection Results

| | | | | | | |
|------------------------------------|------|------|------|------|-------|------|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.02 |
| d_M, Delay for Movement [s/veh] | 7.66 | 0.00 | 0.00 | 0.00 | 10.89 | 9.51 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh] | 0.39 | 0.39 | 0.00 | 0.00 | 0.14 | 0.14 |
| 95th-Percentile Queue Length [ft] | 9.63 | 9.63 | 0.00 | 0.00 | 3.50 | 3.50 |
| d_A, Approach Delay [s/veh] | 0.25 | | 0.00 | | 10.10 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.95 | | | | | |
| Intersection LOS | B | | | | | |

Intersection Level Of Service Report
Intersection 4: McDaniel at Lafayette

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | Two-way stop | Delay (sec / veh): | 16.4 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.005 |

Intersection Setup

| Name | Lafayette Ave | | Lafayette Ave | | McDaniel St | |
|------------------------|----------------|--------|----------------|--------|----------------|--------|
| Approach | Northeastbound | | Southwestbound | | Southeastbound | |
| Lane Configuration | ↶↑ | | ↑↷ | | ↷↶ | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | Yes | | Yes | |

Volumes

| Name | Lafayette Ave | | Lafayette Ave | | McDaniel St | |
|---|---------------|--------|---------------|--------|-------------|--------|
| Base Volume Input [veh/h] | 97 | 324 | 297 | 3 | 2 | 143 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 7.37 | 7.37 | 7.37 | 7.37 | 7.37 | 7.37 |
| Growth Rate | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 1 | 0 | 0 | 0 | 0 | 5 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 108 | 356 | 327 | 3 | 2 | 162 |
| Peak Hour Factor | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 31 | 102 | 94 | 1 | 1 | 47 |
| Total Analysis Volume [veh/h] | 124 | 409 | 376 | 3 | 2 | 186 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

Intersection Settings

| Priority Scheme | Free | Free | Stop |
|------------------------------------|------|------|------|
| Flared Lane | | | Yes |
| Storage Area [veh] | 0 | 0 | 2 |
| Two-Stage Gap Acceptance | | | Yes |
| Number of Storage Spaces in Median | 0 | 0 | 2 |

Movement, Approach, & Intersection Results

| | | | | | | |
|------------------------------------|------|------|------|------|-------|-------|
| V/C, Movement V/C Ratio | 0.11 | 0.00 | 0.00 | 0.00 | 0.01 | 0.28 |
| d_M, Delay for Movement [s/veh] | 8.51 | 0.00 | 0.00 | 0.00 | 16.37 | 12.60 |
| Movement LOS | A | A | A | A | C | B |
| 95th-Percentile Queue Length [veh] | 0.36 | 0.00 | 0.00 | 0.00 | 1.16 | 1.16 |
| 95th-Percentile Queue Length [ft] | 9.03 | 0.00 | 0.00 | 0.00 | 29.03 | 29.03 |
| d_A, Approach Delay [s/veh] | 1.98 | | 0.00 | | 12.64 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 3.12 | | | | | |
| Intersection LOS | C | | | | | |

Intersection Level Of Service Report
Intersection 5: McDaniel at Site Access

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | Two-way stop | Delay (sec / veh): | 10.8 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.006 |

Intersection Setup

| Name | McDaniel St | | McDaniel St | | Site Access | |
|------------------------|-------------|--------|-------------|--------|-------------|--------|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration | ←↑ | | ↑→ | | ←↑→ | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 25.00 | | 25.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | Yes | | Yes | |

Volumes

| Name | McDaniel St | | McDaniel St | | Site Access | |
|---|-------------|--------|-------------|--------|-------------|--------|
| Base Volume Input [veh/h] | 0 | 102 | 145 | 0 | 0 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Growth Rate | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 1 | 0 | 0 | 1 | 3 | 5 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 1 | 112 | 160 | 1 | 3 | 5 |
| Peak Hour Factor | 0.7400 | 0.7400 | 0.7400 | 0.7400 | 0.7400 | 0.7400 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 38 | 54 | 0 | 1 | 2 |
| Total Analysis Volume [veh/h] | 1 | 151 | 216 | 1 | 4 | 7 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

Intersection Settings

| Priority Scheme | Free | Free | Stop |
|------------------------------------|------|------|------|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

Movement, Approach, & Intersection Results

| | | | | | | |
|------------------------------------|------|------|------|------|-------|------|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 |
| d_M, Delay for Movement [s/veh] | 7.69 | 0.00 | 0.00 | 0.00 | 10.82 | 9.47 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh] | 0.38 | 0.38 | 0.00 | 0.00 | 0.05 | 0.05 |
| 95th-Percentile Queue Length [ft] | 9.56 | 9.56 | 0.00 | 0.00 | 1.14 | 1.14 |
| d_A, Approach Delay [s/veh] | 0.05 | | 0.00 | | 9.96 | |
| Approach LOS | A | | A | | A | |
| d_I, Intersection Delay [s/veh] | 0.31 | | | | | |
| Intersection LOS | B | | | | | |

18-378 - 17th at McDaniels Apts TIA

Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro

Scenario 5 AM Future - 2028

Report File: J:\...\18-379 AM Future 2028.pdf

4/3/2018

Turning Movement Volume: Summary

| ID | Intersection Name | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume |
|----|---------------------|------------|------|-------|------------|------|-------|-----------|------|-------|-----------|------|-------|--------------|
| | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 1 | McDaniel at 19th St | 48 | 75 | 3 | 4 | 120 | 58 | 47 | 32 | 43 | 1 | 34 | 2 | 467 |

| ID | Intersection Name | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume |
|----|---------------------|------------|------|-------|------------|------|-------|-----------|------|-------|-----------|------|-------|--------------|
| | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 2 | McDaniel at 18th St | 3 | 112 | 3 | 2 | 144 | 18 | 11 | 13 | 7 | 0 | 19 | 6 | 338 |

| ID | Intersection Name | Northbound | | Southbound | | Eastbound | | Total Volume |
|----|---------------------|------------|------|------------|-------|-----------|-------|--------------|
| | | Left | Thru | Thru | Right | Left | Right | |
| 3 | McDaniel at 17th St | 4 | 111 | 141 | 8 | 10 | 14 | 288 |

| ID | Intersection Name | Northeastbound | | Southwestbound | | Southeastbound | | Total Volume |
|----|-----------------------|----------------|------|----------------|-------|----------------|-------|--------------|
| | | Left | Thru | Thru | Right | Left | Right | |
| 4 | McDaniel at Lafayette | 108 | 356 | 327 | 3 | 2 | 162 | 958 |

| ID | Intersection Name | Northbound | | Southbound | | Eastbound | | Total Volume |
|----|-------------------------|------------|------|------------|-------|-----------|-------|--------------|
| | | Left | Thru | Thru | Right | Left | Right | |
| 5 | McDaniel at Site Access | 1 | 112 | 160 | 1 | 3 | 5 | 282 |

18-378 - 17th at McDaniels Apts TIA

Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro
Report File: J:\...\18-379 AM Future 2028.pdf

Scenario 5 AM Future - 2028
4/3/2018

Turning Movement Volume: Detail

| ID | Intersection Name | Volume Type | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume | |
|----|---------------------|---------------------|------------|-----------|----------|------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|----------|--------------|---|
| | | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | | |
| 1 | McDaniel at 19th St | Final Base | 42 | 68 | 2 | 4 | 109 | 53 | 43 | 29 | 38 | 1 | 31 | 2 | 422 | |
| | | Growth Rate | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | - |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Net New Trips | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 48 | 75 | 3 | 4 | 120 | 58 | 47 | 32 | 43 | 1 | 34 | 2 | 467 | |

| ID | Intersection Name | Volume Type | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume | |
|----|---------------------|---------------------|------------|------------|----------|------------|------------|-----------|-----------|-----------|----------|-----------|-----------|----------|--------------|---|
| | | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | | |
| 2 | McDaniel at 18th St | Final Base | 3 | 99 | 3 | 2 | 130 | 16 | 10 | 12 | 6 | 0 | 17 | 5 | 303 | |
| | | Growth Rate | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | - |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Net New Trips | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 3 | 112 | 3 | 2 | 144 | 18 | 11 | 13 | 7 | 0 | 19 | 6 | 338 | |

| ID | Intersection Name | Volume Type | Northbound | | Southbound | | Eastbound | | Total Volume |
|----|---------------------|---------------------|------------|------------|------------|----------|-----------|-----------|--------------|
| | | | Left | Thru | Thru | Right | Left | Right | |
| 3 | McDaniel at 17th St | Final Base | 4 | 98 | 127 | 7 | 9 | 13 | 258 |
| | | Growth Rate | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | - |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Net New Trips | 0 | 3 | 1 | 0 | 0 | 0 | 4 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 4 | 111 | 141 | 8 | 10 | 14 | 288 |

| ID | Intersection Name | Volume Type | Northeastbound | | Southwestbound | | Southeastbound | | Total Volume |
|----|-----------------------|---------------------|----------------|------------|----------------|----------|----------------|------------|--------------|
| | | | Left | Thru | Thru | Right | Left | Right | |
| 4 | McDaniel at Lafayette | Final Base | 97 | 324 | 297 | 3 | 2 | 143 | 866 |
| | | Growth Rate | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | - |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Net New Trips | 1 | 0 | 0 | 0 | 0 | 5 | 6 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 108 | 356 | 327 | 3 | 2 | 162 | 958 |

| ID | Intersection Name | Volume Type | Northbound | | Southbound | | Eastbound | | Total Volume |
|----|-------------------------|---------------------|------------|------------|------------|----------|-----------|----------|--------------|
| | | | Left | Thru | Thru | Right | Left | Right | |
| 5 | McDaniel at Site Access | Final Base | 0 | 102 | 145 | 0 | 0 | 0 | 247 |
| | | Growth Rate | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | - |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Net New Trips | 1 | 0 | 0 | 1 | 3 | 5 | 10 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 1 | 112 | 160 | 1 | 3 | 5 | 282 |

18-378 - 17th at McDaniels Apts TIA

Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro

Scenario 5 AM Future - 2028

Report File: J:\...\18-379 AM Future 2028.pdf

4/3/2018

Trip Generation summary

Added Trips

| Zone ID: Name | Land Use variables | Code | Ind. Var. | Rate | Quantity | % In | % Out | Trips In | Trips Out | Total Trips | % of Total Trips |
|--------------------------|--------------------|---------|----------------|-------|----------|-------|-------|----------|-----------|-------------|------------------|
| 9: McDaniel St Apts | Apartments | ITE 220 | Apartment Unit | 0.510 | 29.000 | 20.00 | 80.00 | 3 | 12 | 15 | 100.00 |
| Added Trips Total | | | | | | | | 3 | 12 | 15 | 100.00 |

18-378 - 17th at McDaniels Apts TIA

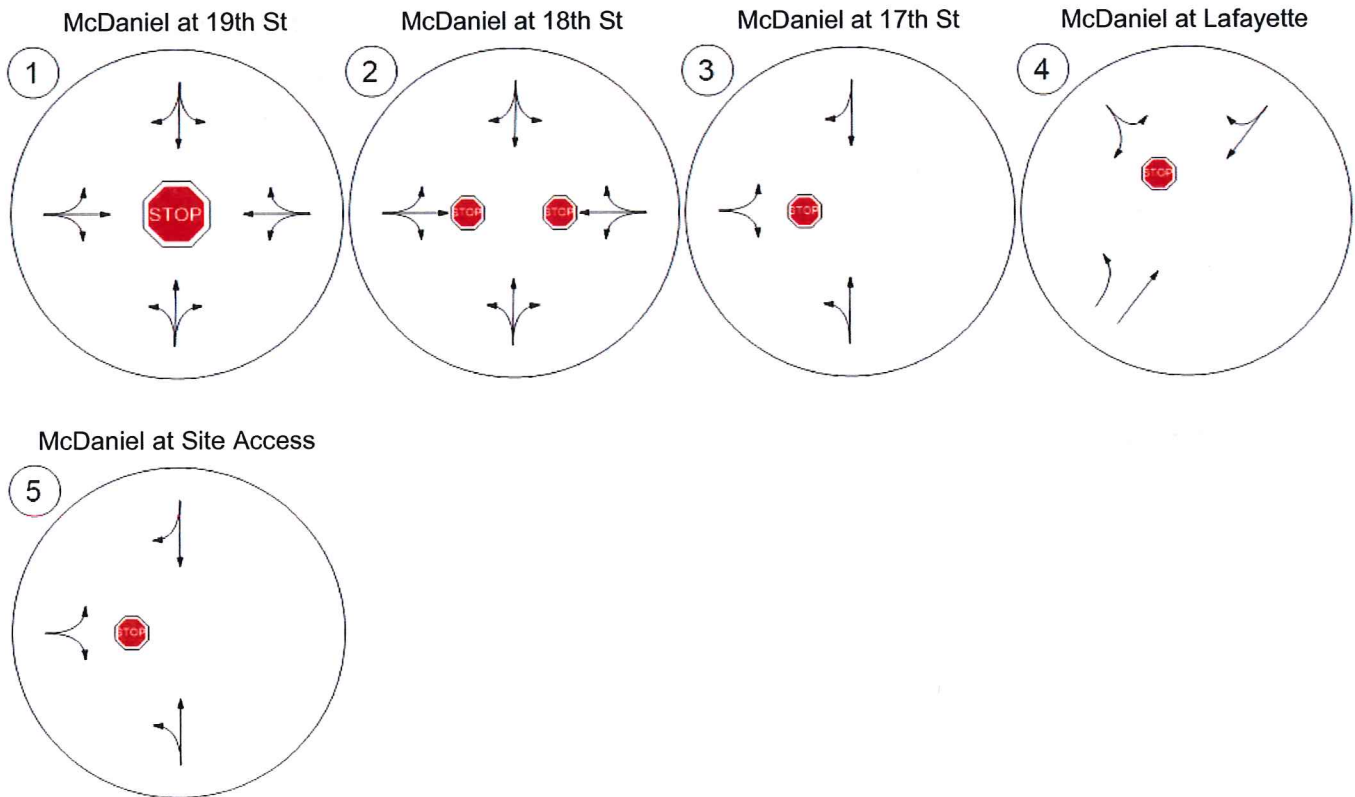
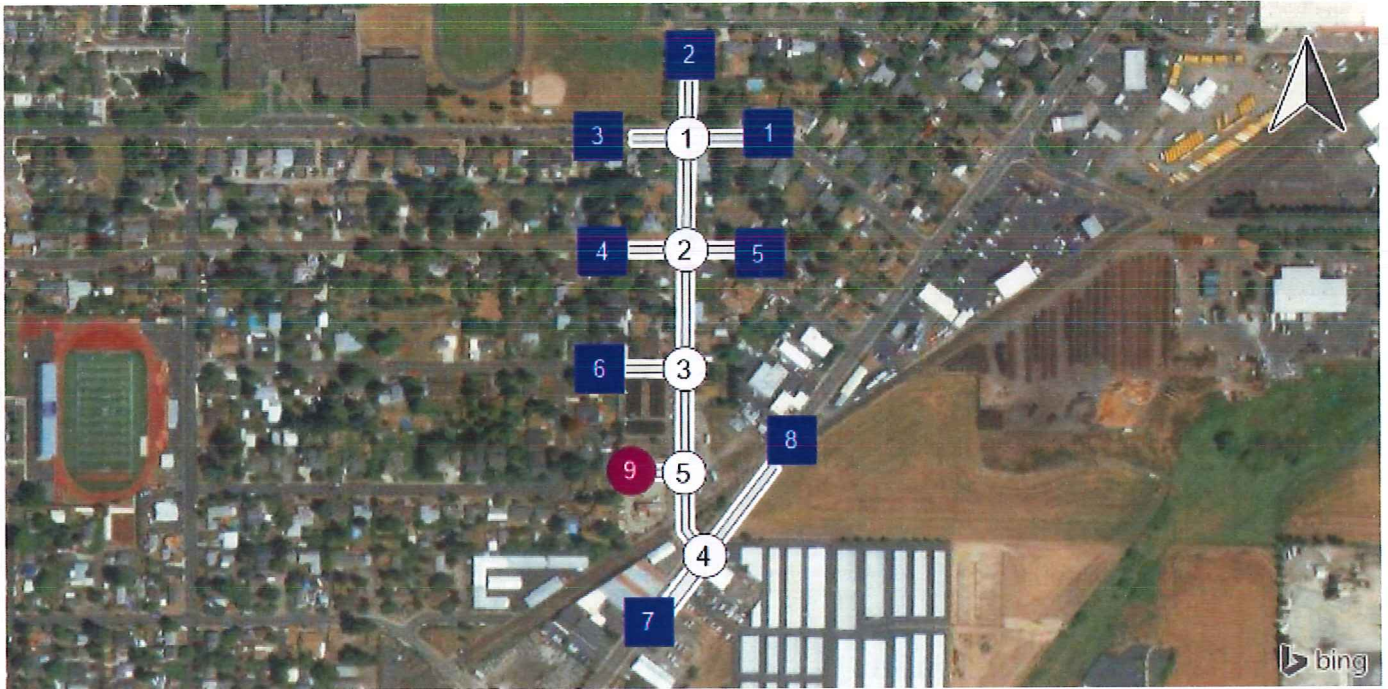
Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro
 Report File: J:\...\18-379 AM Future 2028.pdf

Scenario 5 AM Future - 2028
 4/3/2018

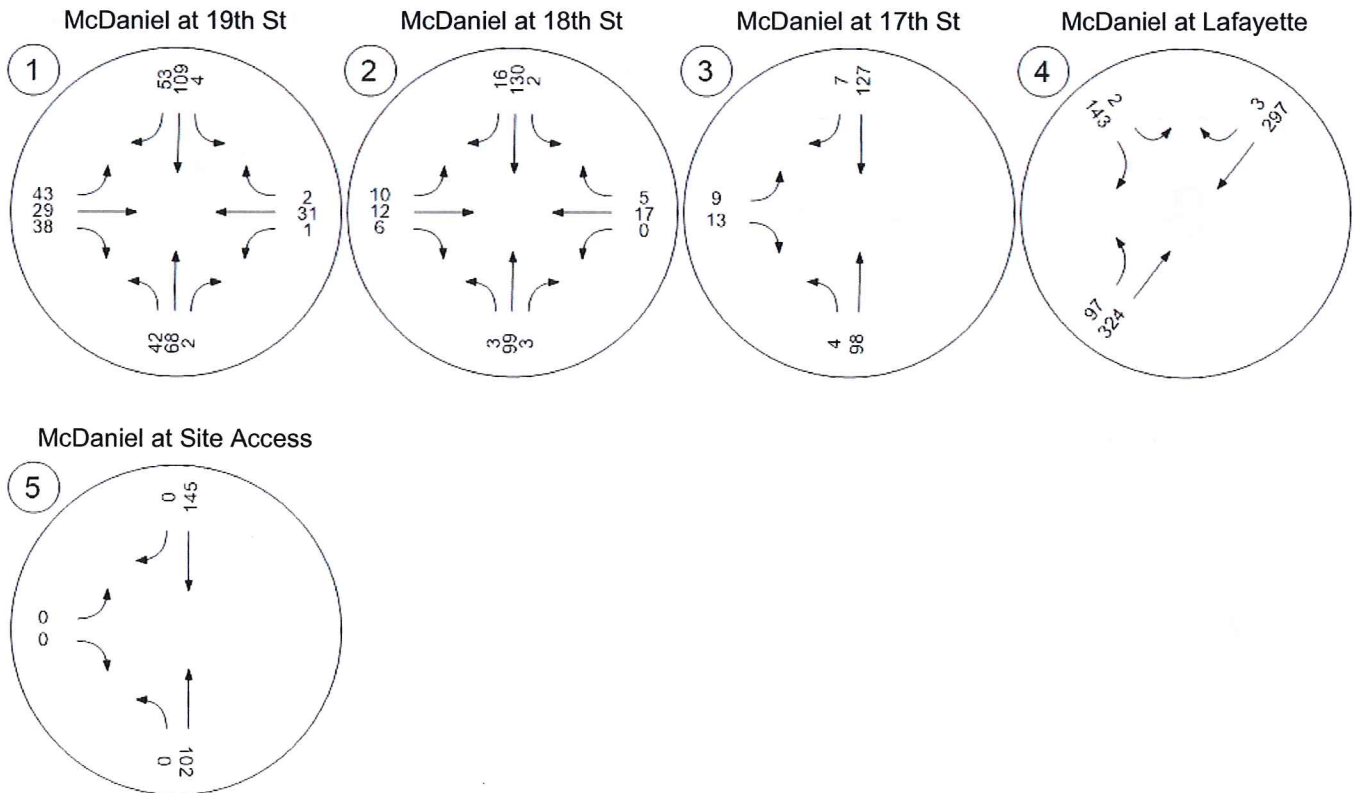
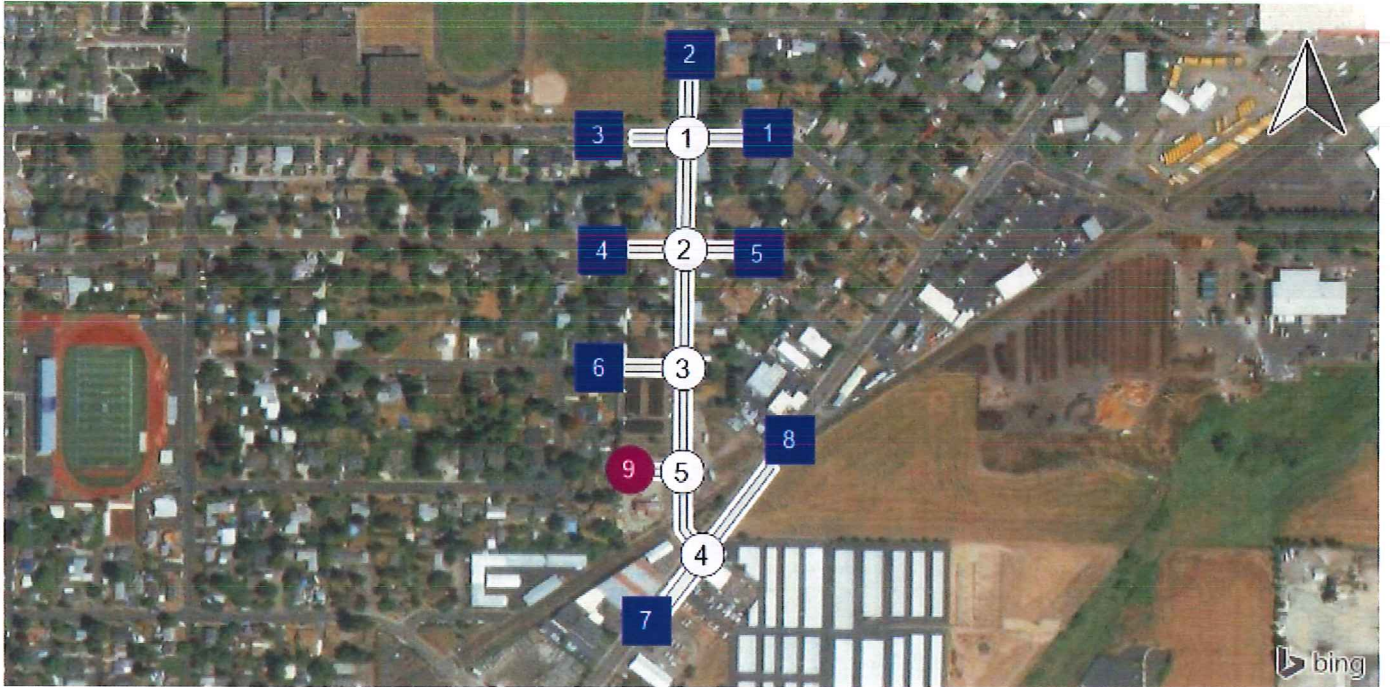
Trip Distribution summary

| Zone / Gate | Zone 9: McDaniel St Apts | | | |
|--------------|--------------------------|----------|------------------------|----------|
| | To McDaniel St Apts: | | From McDaniel St Apts: | |
| | Share % | Trips | Share % | Trips |
| 1: Gate | 10.00 | 0 | 10.00 | 1 |
| 2: Gate | 0.00 | 0 | 0.00 | 0 |
| 3: Gate | 20.00 | 1 | 20.00 | 2 |
| 4: Gate | 0.00 | 0 | 0.00 | 0 |
| 5: Gate | 0.00 | 0 | 0.00 | 0 |
| 6: Gate | 0.00 | 0 | 0.00 | 0 |
| 7: Gate | 40.00 | 1 | 40.00 | 5 |
| 8: Gate | 0.00 | 0 | 0.00 | 0 |
| Total | 70.00 | 2 | 70.00 | 8 |

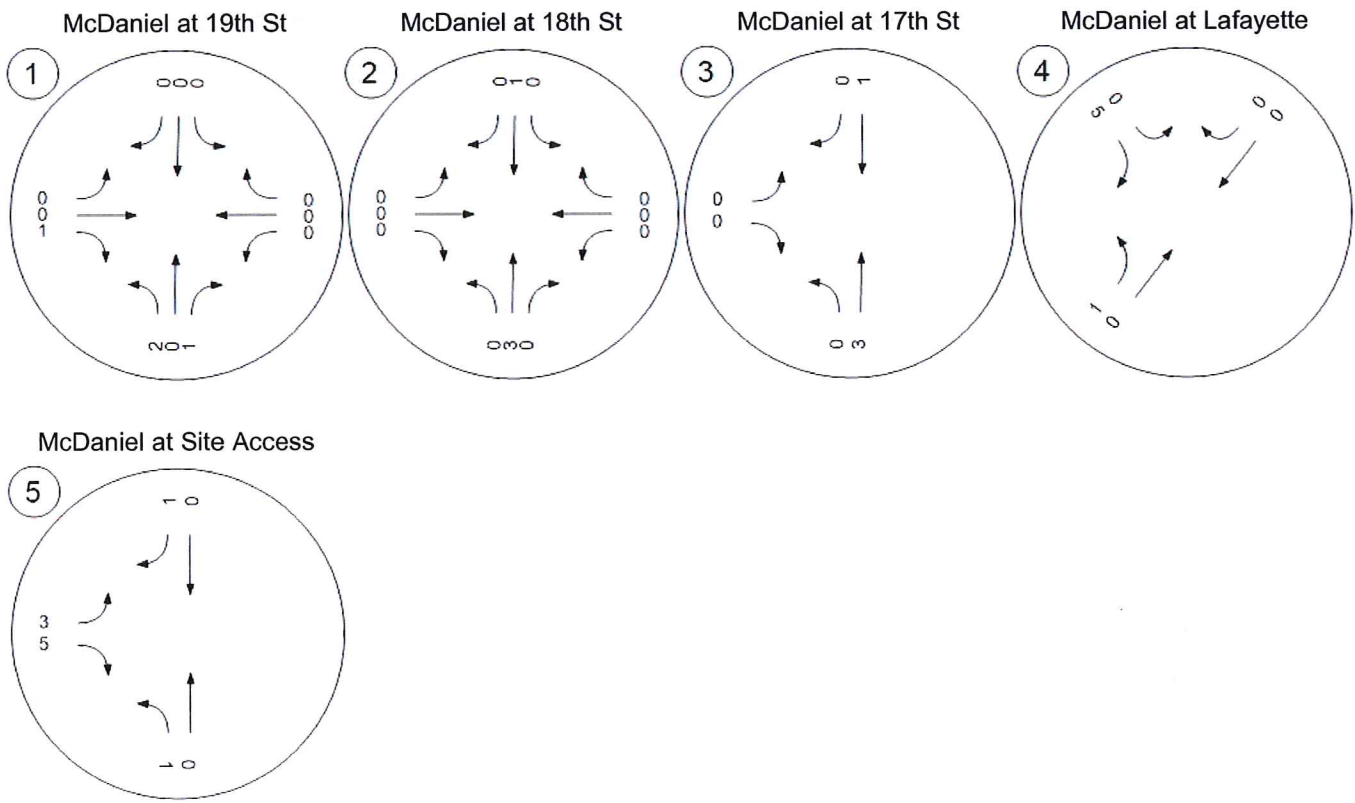
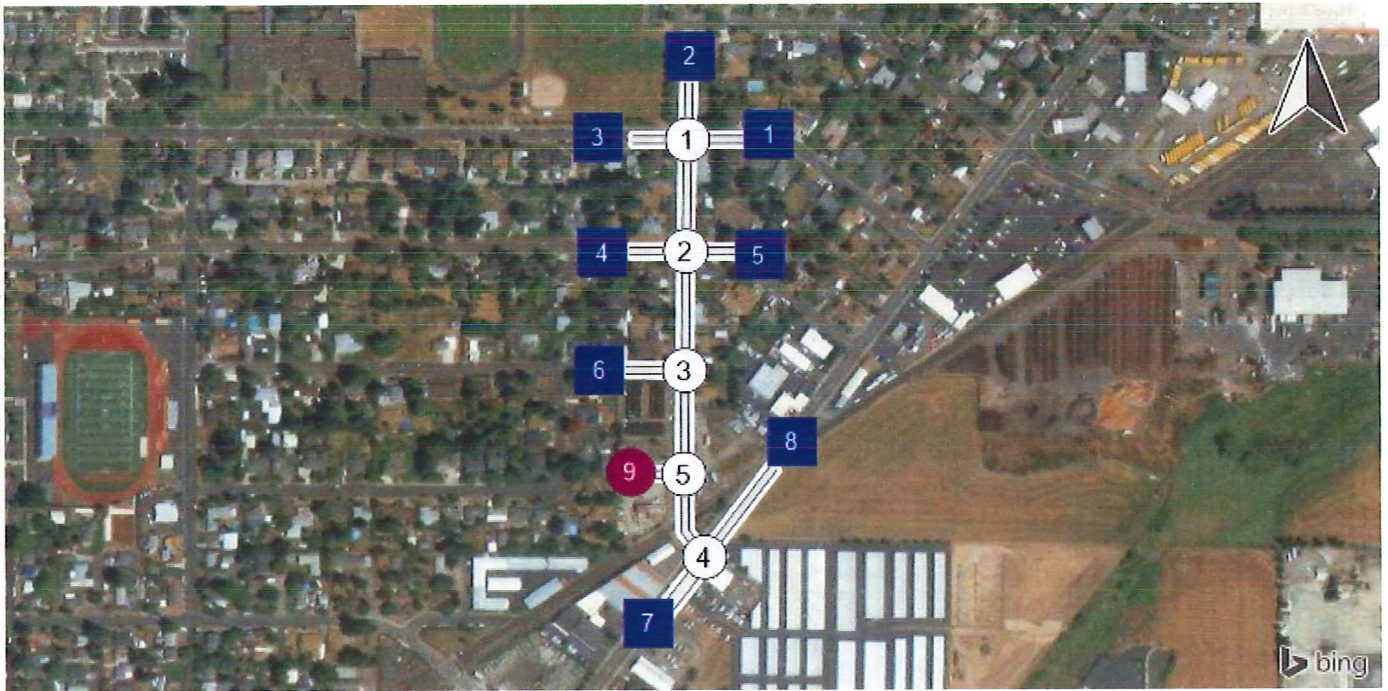
Report Figure 1: Lane Configuration and Traffic Control



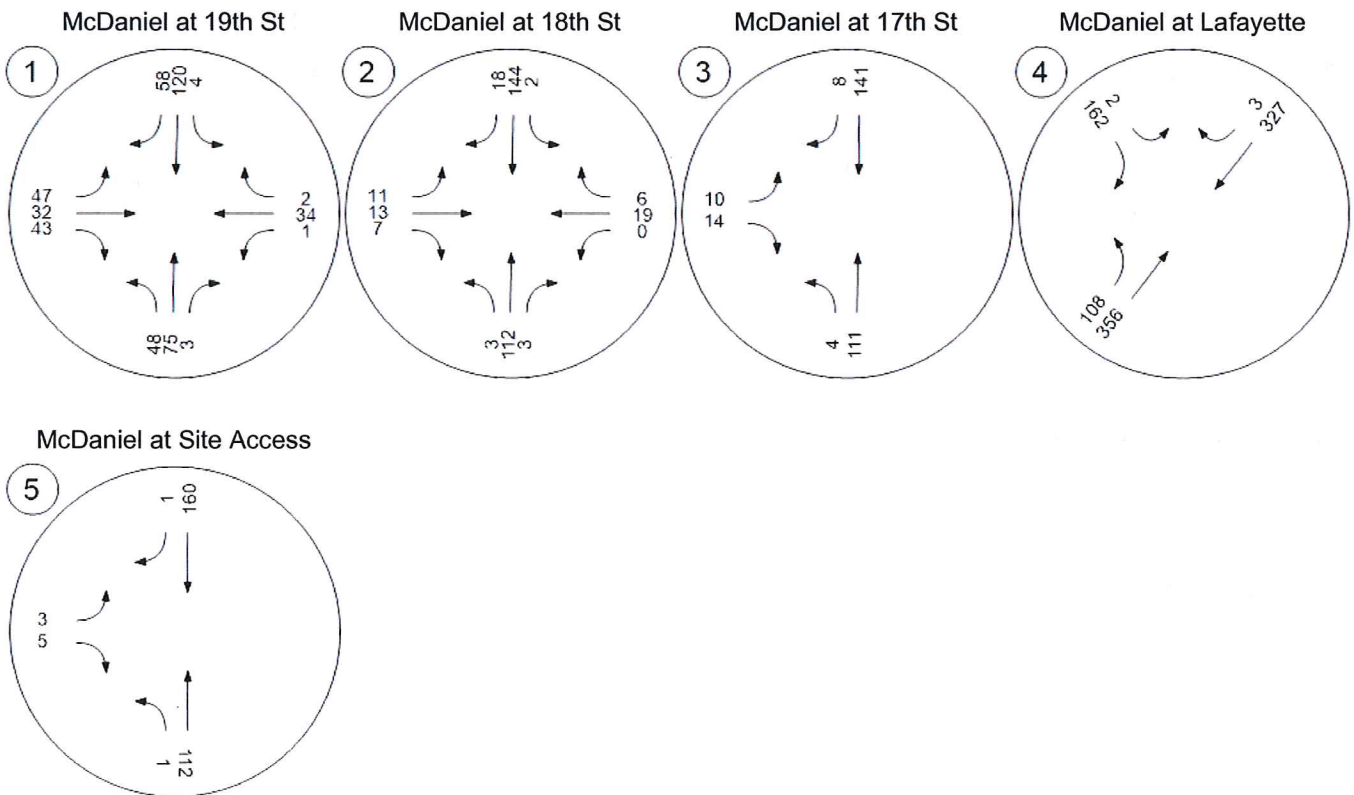
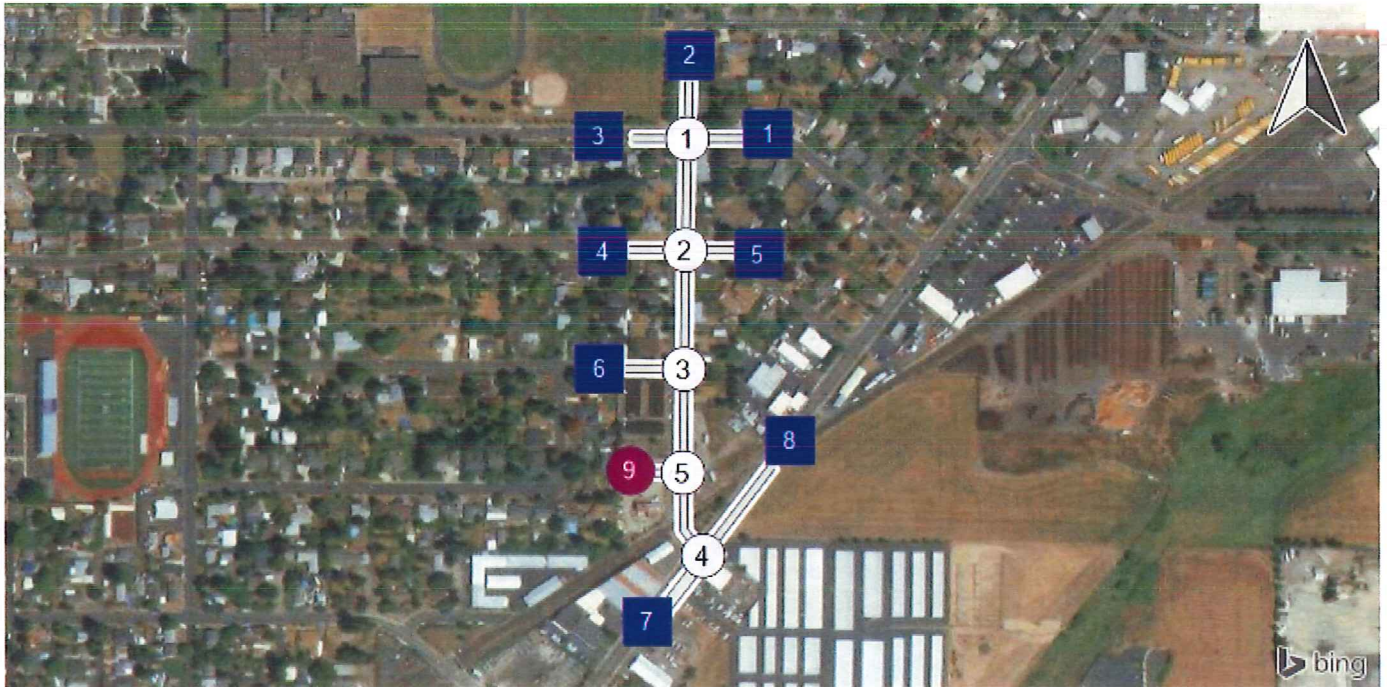
Report Figure 2a: Traffic Volume - Base Volume



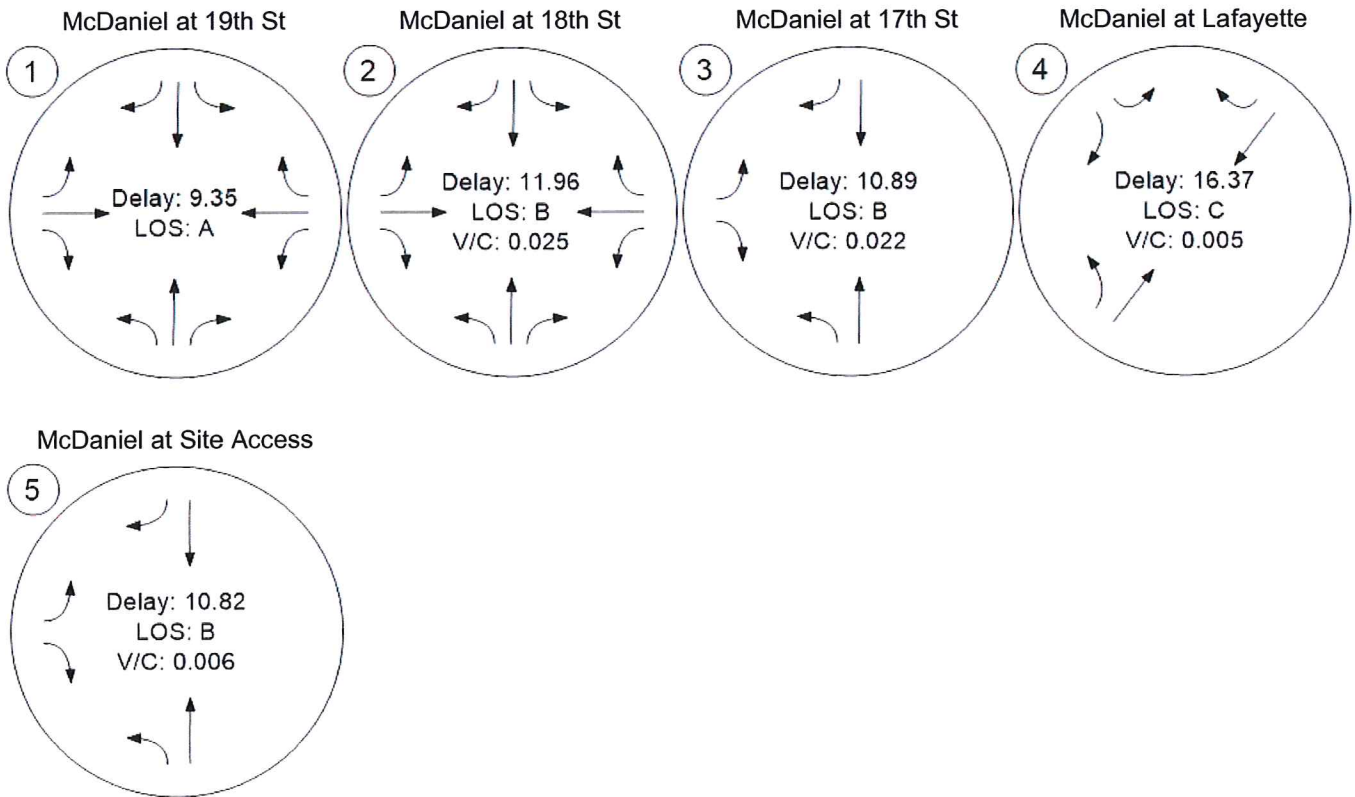
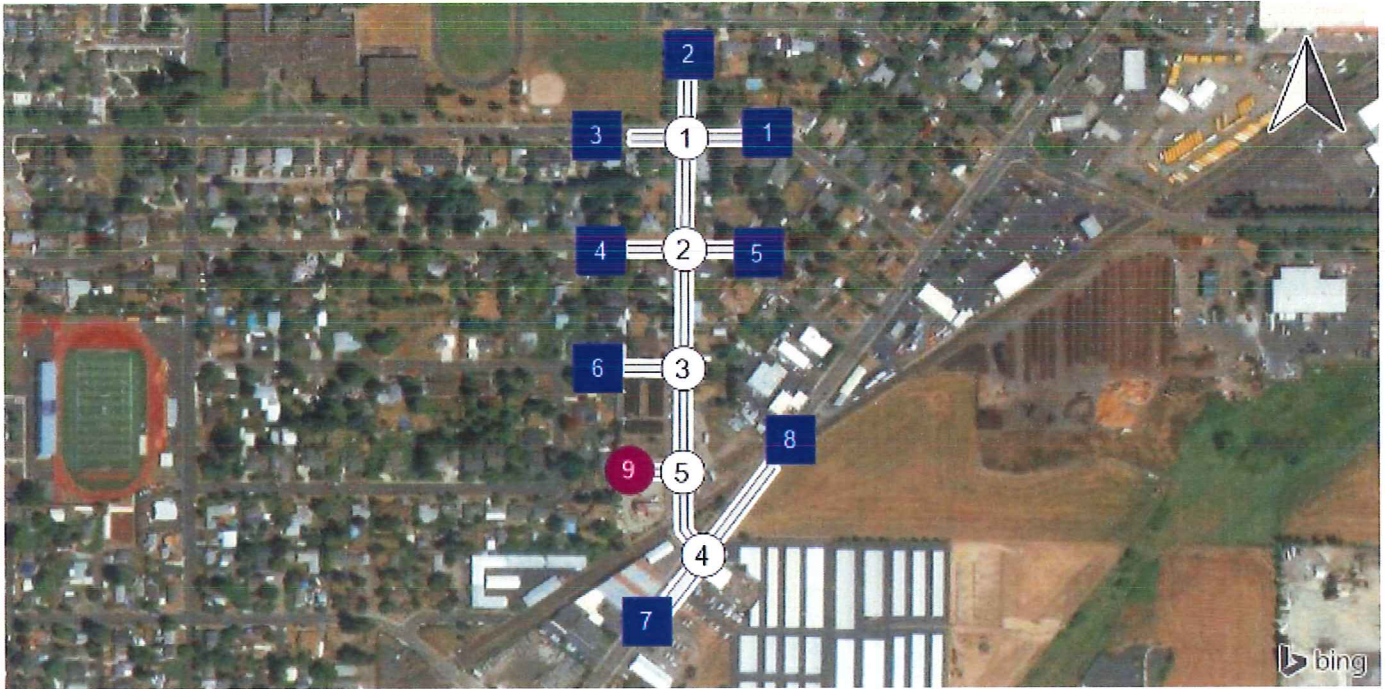
Report Figure 2d: Traffic Volume - Net New Site Trips



Report Figure 2f: Traffic Volume - Future Total Volume



Report Figure 3: Traffic Conditions



18-378 - 17th at McDaniels Apts TIA

Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro
Report File: J:\...\18-379 PM Future 2028.pdf

Scenario 6 PM Future - 2028
4/3/2018

Intersection Analysis Summary

| ID | Intersection Name | Control Type | Method | Worst Mvmt | V/C | Delay (s/veh) | LOS |
|----|-------------------------|--------------|-----------------|------------|-------|---------------|-----|
| 1 | McDaniel at 19th St | All-way stop | HCM 6th Edition | NB Thru | 0.275 | 9.2 | A |
| 2 | McDaniel at 18th St | Two-way stop | HCM 6th Edition | WB Thru | 0.028 | 12.2 | B |
| 3 | McDaniel at 17th St | Two-way stop | HCM 6th Edition | EB Left | 0.019 | 11.3 | B |
| 4 | McDaniel at Lafayette | Two-way stop | HCM 6th Edition | SEB Left | 0.009 | 26.3 | D |
| 5 | McDaniel at Site Access | Two-way stop | HCM 6th Edition | EB Left | 0.003 | 11.0 | B |

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. for all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: McDaniel at 19th St

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | All-way stop | Delay (sec / veh): | 9.2 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.275 |

Intersection Setup

| Name | McDaniel St | | | McDaniel St | | | 19th St | | | 19th St | | |
|------------------------|-------------|--------|--------|-------------|--------|--------|-----------|--------|--------|-----------|--------|--------|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | + | | | + | | | + | | | + | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 25.00 | | | 25.00 | | | 25.00 | | | 25.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

Volumes

| Name | McDaniel St | | | McDaniel St | | | 19th St | | | 19th St | | |
|---|-------------|--------|--------|-------------|--------|--------|---------|--------|--------|---------|--------|--------|
| Base Volume Input [veh/h] | 35 | 125 | 2 | 5 | 117 | 41 | 47 | 36 | 15 | 2 | 56 | 4 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 |
| Growth Rate | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 40 | 138 | 3 | 6 | 129 | 45 | 52 | 40 | 19 | 3 | 62 | 4 |
| Peak Hour Factor | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 11 | 40 | 1 | 2 | 37 | 13 | 15 | 11 | 5 | 1 | 18 | 1 |
| Total Analysis Volume [veh/h] | 46 | 159 | 3 | 7 | 148 | 52 | 60 | 46 | 22 | 3 | 71 | 5 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

Intersection Settings

Lanes

| | | | | |
|---------------------------------|------|------|------|------|
| Capacity per Entry Lane [veh/h] | 758 | 786 | 717 | 710 |
| Degree of Utilization, x | 0.27 | 0.26 | 0.18 | 0.11 |

Movement, Approach, & Intersection Results

| | | | | |
|------------------------------------|-------|-------|-------|------|
| 95th-Percentile Queue Length [veh] | 1.12 | 1.06 | 0.65 | 0.37 |
| 95th-Percentile Queue Length [ft] | 27.93 | 26.44 | 16.16 | 9.36 |
| Approach Delay [s/veh] | 9.54 | 9.21 | 9.11 | 8.71 |
| Approach LOS | A | A | A | A |
| Intersection Delay [s/veh] | 9.24 | | | |
| Intersection LOS | A | | | |

Intersection Level Of Service Report
Intersection 2: McDaniel at 18th St

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | Two-way stop | Delay (sec / veh): | 12.2 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.028 |

Intersection Setup

| Name | McDaniel St | | | McDaniel St | | | 18th St | | | 18th St | | |
|------------------------|-------------|--------|--------|-------------|--------|--------|-----------|--------|--------|-----------|--------|--------|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | + | | | + | | | + | | | + | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 25.00 | | | 25.00 | | | 25.00 | | | 25.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

Volumes

| Name | McDaniel St | | | McDaniel St | | | 18th St | | | 18th St | | |
|---|-------------|--------|--------|-------------|--------|--------|---------|--------|--------|---------|--------|--------|
| Base Volume Input [veh/h] | 5 | 141 | 2 | 3 | 143 | 4 | 7 | 5 | 8 | 7 | 12 | 11 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 |
| Growth Rate | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 6 | 157 | 2 | 3 | 160 | 4 | 8 | 6 | 9 | 8 | 13 | 12 |
| Peak Hour Factor | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 | 0.8400 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 2 | 47 | 1 | 1 | 48 | 1 | 2 | 2 | 3 | 2 | 4 | 4 |
| Total Analysis Volume [veh/h] | 7 | 187 | 2 | 4 | 190 | 5 | 10 | 7 | 11 | 10 | 15 | 14 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

Intersection Settings

| | | | | |
|------------------------------------|------|------|------|------|
| Priority Scheme | Free | Free | Stop | Stop |
| Flared Lane | | | No | No |
| Storage Area [veh] | 0 | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 | 0 |

Movement, Approach, & Intersection Results

| | | | | | | | | | | | | |
|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|------|
| V/C, Movement V/C Ratio | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.01 | 0.01 | 0.02 | 0.03 | 0.02 |
| d_M, Delay for Movement [s/veh] | 7.64 | 0.00 | 0.00 | 7.62 | 0.00 | 0.00 | 12.20 | 12.08 | 9.53 | 12.16 | 12.21 | 9.63 |
| Movement LOS | A | A | A | A | A | A | B | B | A | B | B | A |
| 95th-Percentile Queue Length [veh] | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.14 | 0.14 | 0.14 | 0.20 | 0.20 | 0.20 |
| 95th-Percentile Queue Length [ft] | 12.46 | 12.46 | 12.46 | 12.61 | 12.61 | 12.61 | 3.56 | 3.56 | 3.56 | 5.08 | 5.08 | 5.08 |
| d_A, Approach Delay [s/veh] | 0.27 | | | 0.15 | | | 11.12 | | | 11.27 | | |
| Approach LOS | A | | | A | | | B | | | B | | |
| d_I, Intersection Delay [s/veh] | 1.81 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |

Intersection Level Of Service Report
Intersection 3: McDaniel at 17th St

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | Two-way stop | Delay (sec / veh): | 11.3 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.019 |

Intersection Setup

| Name | McDaniel St | | McDaniel St | | 17th St | |
|------------------------|-------------|--------|-------------|--------|-----------|--------|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration | ←↑ | | ↑→ | | ←↑→ | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | Yes | | Yes | |

Volumes

| Name | McDaniel St | | McDaniel St | | 17th St | |
|---|-------------|--------|-------------|--------|---------|--------|
| Base Volume Input [veh/h] | 15 | 144 | 144 | 12 | 9 | 2 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 |
| Growth Rate | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 2 | 3 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 17 | 160 | 161 | 13 | 10 | 2 |
| Peak Hour Factor | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 5 | 46 | 46 | 4 | 3 | 1 |
| Total Analysis Volume [veh/h] | 20 | 184 | 185 | 15 | 11 | 2 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

Intersection Settings

| Priority Scheme | Free | Free | Stop |
|------------------------------------|------|------|------|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

Movement, Approach, & Intersection Results

| | | | | | | |
|------------------------------------|-------|-------|------|------|-------|------|
| V/C, Movement V/C Ratio | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 |
| d_M, Delay for Movement [s/veh] | 7.65 | 0.00 | 0.00 | 0.00 | 11.27 | 9.35 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh] | 0.52 | 0.52 | 0.00 | 0.00 | 0.06 | 0.06 |
| 95th-Percentile Queue Length [ft] | 12.96 | 12.96 | 0.00 | 0.00 | 1.62 | 1.62 |
| d_A, Approach Delay [s/veh] | 0.75 | | 0.00 | | 10.98 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.71 | | | | | |
| Intersection LOS | B | | | | | |

Intersection Level Of Service Report
Intersection 4: McDaniel at Lafayette

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | Two-way stop | Delay (sec / veh): | 26.3 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.009 |

Intersection Setup

| Name | Lafayette Ave | | Lafayette Ave | | McDaniel St | |
|------------------------|----------------|--------|----------------|--------|----------------|--------|
| Approach | Northeastbound | | Southwestbound | | Southeastbound | |
| Lane Configuration | ↶↑ | | ↑↷ | | ↶↷ | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | Yes | | Yes | |

Volumes

| Name | Lafayette Ave | | Lafayette Ave | | McDaniel St | |
|---|---------------|--------|---------------|--------|-------------|--------|
| Base Volume Input [veh/h] | 138 | 486 | 622 | 12 | 2 | 127 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 |
| Growth Rate | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 5 | 0 | 0 | 0 | 0 | 2 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 157 | 535 | 684 | 13 | 2 | 142 |
| Peak Hour Factor | 0.9000 | 0.9000 | 0.9000 | 0.9000 | 0.9000 | 0.9000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 44 | 149 | 190 | 4 | 1 | 39 |
| Total Analysis Volume [veh/h] | 174 | 594 | 760 | 14 | 2 | 158 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

Intersection Settings

| Priority Scheme | Free | Free | Stop |
|------------------------------------|------|------|------|
| Flared Lane | | | Yes |
| Storage Area [veh] | 0 | 0 | 2 |
| Two-Stage Gap Acceptance | | | Yes |
| Number of Storage Spaces in Median | 0 | 0 | 2 |

Movement, Approach, & Intersection Results

| | | | | | | |
|------------------------------------|-------|------|------|------|-------|-------|
| V/C, Movement V/C Ratio | 0.21 | 0.01 | 0.01 | 0.00 | 0.01 | 0.39 |
| d_M, Delay for Movement [s/veh] | 10.44 | 0.00 | 0.00 | 0.00 | 26.32 | 19.68 |
| Movement LOS | B | A | A | A | D | C |
| 95th-Percentile Queue Length [veh] | 0.78 | 0.00 | 0.00 | 0.00 | 1.85 | 1.85 |
| 95th-Percentile Queue Length [ft] | 19.54 | 0.00 | 0.00 | 0.00 | 46.17 | 46.17 |
| d_A, Approach Delay [s/veh] | 2.36 | | 0.00 | | 19.76 | |
| Approach LOS | A | | A | | C | |
| d_I, Intersection Delay [s/veh] | 2.92 | | | | | |
| Intersection LOS | D | | | | | |

Intersection Level Of Service Report
Intersection 5: McDaniel at Site Access

| | | | |
|------------------|-----------------|---------------------------|-------|
| Control Type: | Two-way stop | Delay (sec / veh): | 11.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.003 |

Intersection Setup

| Name | McDaniel St | | McDaniel St | | Site Access | |
|------------------------|-------------|--------|-------------|--------|-------------|--------|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration | ←↑ | | ↑→ | | ←↑→ | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Speed [mph] | 25.00 | | 25.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | Yes | | Yes | |

Volumes

| Name | McDaniel St | | McDaniel St | | Site Access | |
|---|-------------|--------|-------------|--------|-------------|--------|
| Base Volume Input [veh/h] | 0 | 159 | 146 | 0 | 0 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 |
| Growth Rate | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 5 | 0 | 0 | 3 | 2 | 2 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 5 | 175 | 161 | 3 | 2 | 2 |
| Peak Hour Factor | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 | 0.8700 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 1 | 50 | 46 | 1 | 1 | 1 |
| Total Analysis Volume [veh/h] | 6 | 201 | 185 | 3 | 2 | 2 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

Intersection Settings

| Priority Scheme | Free | Free | Stop |
|------------------------------------|------|------|------|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

Movement, Approach, & Intersection Results

| | | | | | | |
|------------------------------------|-------|-------|------|------|-------|------|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| d_M, Delay for Movement [s/veh] | 7.59 | 9.00 | 0.00 | 0.00 | 10.97 | 9.22 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh] | 0.52 | 0.52 | 0.00 | 0.00 | 0.02 | 0.02 |
| 95th-Percentile Queue Length [ft] | 13.03 | 13.03 | 0.00 | 0.00 | 0.42 | 0.42 |
| d_A, Approach Delay [s/veh] | 0.22 | | 0.00 | | 10.09 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.22 | | | | | |
| Intersection LOS | B | | | | | |

18-378 - 17th at McDaniels Apts TIA

Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro

Scenario 6 PM Future - 2028

Report File: J:\...\18-379 PM Future 2028.pdf

4/3/2018

Turning Movement Volume: Summary

| ID | Intersection Name | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume |
|----|---------------------|------------|------|-------|------------|------|-------|-----------|------|-------|-----------|------|-------|--------------|
| | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 1 | McDaniel at 19th St | 40 | 138 | 3 | 6 | 129 | 45 | 52 | 40 | 19 | 3 | 62 | 4 | 541 |

| ID | Intersection Name | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume |
|----|---------------------|------------|------|-------|------------|------|-------|-----------|------|-------|-----------|------|-------|--------------|
| | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 2 | McDaniel at 18th St | 6 | 157 | 2 | 3 | 160 | 4 | 8 | 6 | 9 | 8 | 13 | 12 | 388 |

| ID | Intersection Name | Northbound | | Southbound | | Eastbound | | Total Volume |
|----|---------------------|------------|------|------------|-------|-----------|-------|--------------|
| | | Left | Thru | Thru | Right | Left | Right | |
| 3 | McDaniel at 17th St | 17 | 160 | 161 | 13 | 10 | 2 | 363 |

| ID | Intersection Name | Northeastbound | | Southwestbound | | Southeastbound | | Total Volume |
|----|-----------------------|----------------|------|----------------|-------|----------------|-------|--------------|
| | | Left | Thru | Thru | Right | Left | Right | |
| 4 | McDaniel at Lafayette | 157 | 535 | 684 | 13 | 2 | 142 | 1533 |

| ID | Intersection Name | Northbound | | Southbound | | Eastbound | | Total Volume |
|----|-------------------------|------------|------|------------|-------|-----------|-------|--------------|
| | | Left | Thru | Thru | Right | Left | Right | |
| 5 | McDaniel at Site Access | 5 | 175 | 161 | 3 | 2 | 2 | 348 |

18-378 - 17th at McDaniels Apts TIA

Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro

Scenario 6 PM Future - 2028

Report File: J:\...\18-379 PM Future 2028.pdf

4/3/2018

Turning Movement Volume: Detail

| ID | Intersection Name | Volume Type | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume | |
|----|---------------------|---------------------|------------|------------|----------|------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|----------|--------------|---|
| | | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | | |
| 1 | McDaniel at 19th St | Final Base | 35 | 125 | 2 | 5 | 117 | 41 | 47 | 36 | 15 | 2 | 56 | 4 | 485 | |
| | | Growth Rate | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | - | |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | Net New Trips | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 5 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 40 | 138 | 3 | 6 | 129 | 45 | 52 | 40 | 19 | 3 | 62 | 4 | 541 | |

| ID | Intersection Name | Volume Type | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total Volume | |
|----|---------------------|---------------------|------------|------------|----------|------------|------------|----------|-----------|----------|----------|-----------|-----------|-----------|--------------|---|
| | | | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | | |
| 2 | McDaniel at 18th St | Final Base | 5 | 141 | 2 | 3 | 143 | 4 | 7 | 5 | 8 | 7 | 12 | 11 | 348 | |
| | | Growth Rate | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | - | |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | Net New Trips | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 6 | 157 | 2 | 3 | 160 | 4 | 8 | 6 | 9 | 8 | 13 | 12 | 388 | |

| ID | Intersection Name | Volume Type | Northbound | | Southbound | | Eastbound | | Total Volume |
|----|---------------------|---------------------|------------|------------|------------|-----------|-----------|----------|--------------|
| | | | Left | Thru | Thru | Right | Left | Right | |
| 3 | McDaniel at 17th St | Final Base | 15 | 144 | 144 | 12 | 9 | 2 | 326 |
| | | Growth Rate | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | - |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Net New Trips | 0 | 2 | 3 | 0 | 0 | 0 | 5 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 17 | 160 | 161 | 13 | 10 | 2 | 363 |

| ID | Intersection Name | Volume Type | Northeastbound | | Southwestbound | | Southeastbound | | Total Volume |
|----|-----------------------|---------------------|----------------|------------|----------------|-----------|----------------|------------|--------------|
| | | | Left | Thru | Thru | Right | Left | Right | |
| 4 | McDaniel at Lafayette | Final Base | 138 | 486 | 622 | 12 | 2 | 127 | 1387 |
| | | Growth Rate | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | - |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Net New Trips | 5 | 0 | 0 | 0 | 0 | 2 | 7 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 157 | 535 | 684 | 13 | 2 | 142 | 1533 |

| ID | Intersection Name | Volume Type | Northbound | | Southbound | | Eastbound | | Total Volume |
|----|-------------------------|---------------------|------------|------------|------------|----------|-----------|----------|--------------|
| | | | Left | Thru | Thru | Right | Left | Right | |
| 5 | McDaniel at Site Access | Final Base | 0 | 159 | 146 | 0 | 0 | 0 | 305 |
| | | Growth Rate | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | - |
| | | In Process | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Net New Trips | 5 | 0 | 0 | 3 | 2 | 2 | 12 |
| | | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Future Total | 5 | 175 | 161 | 3 | 2 | 2 | 348 |

18-378 - 17th at McDaniels Apts TIA

Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro
 Report File: J:\...\18-379 PM Future 2028.pdf

Scenario 6 PM Future - 2028
 4/3/2018

Trip Generation summary

Added Trips

| Zone ID: Name | Land Use variables | Code | Ind. Var. | Rate | Quantity | % In | % Out | Trips In | Trips Out | Total Trips | % of Total Trips |
|--------------------------|--------------------|---------|----------------|-------|----------|-------|-------|-----------|-----------|-------------|------------------|
| 9: McDaniel St Apts | Apartments | ITE 220 | Apartment Unit | 0.620 | 29.000 | 65.00 | 35.00 | 12 | 6 | 18 | 100.00 |
| Added Trips Total | | | | | | | | 12 | 6 | 18 | 100.00 |

18-378 - 17th at McDaniels Apts TIA

Vistro File: J:\...\18-379 McDaniels St Apts TIA.vistro

Scenario 6 PM Future - 2028

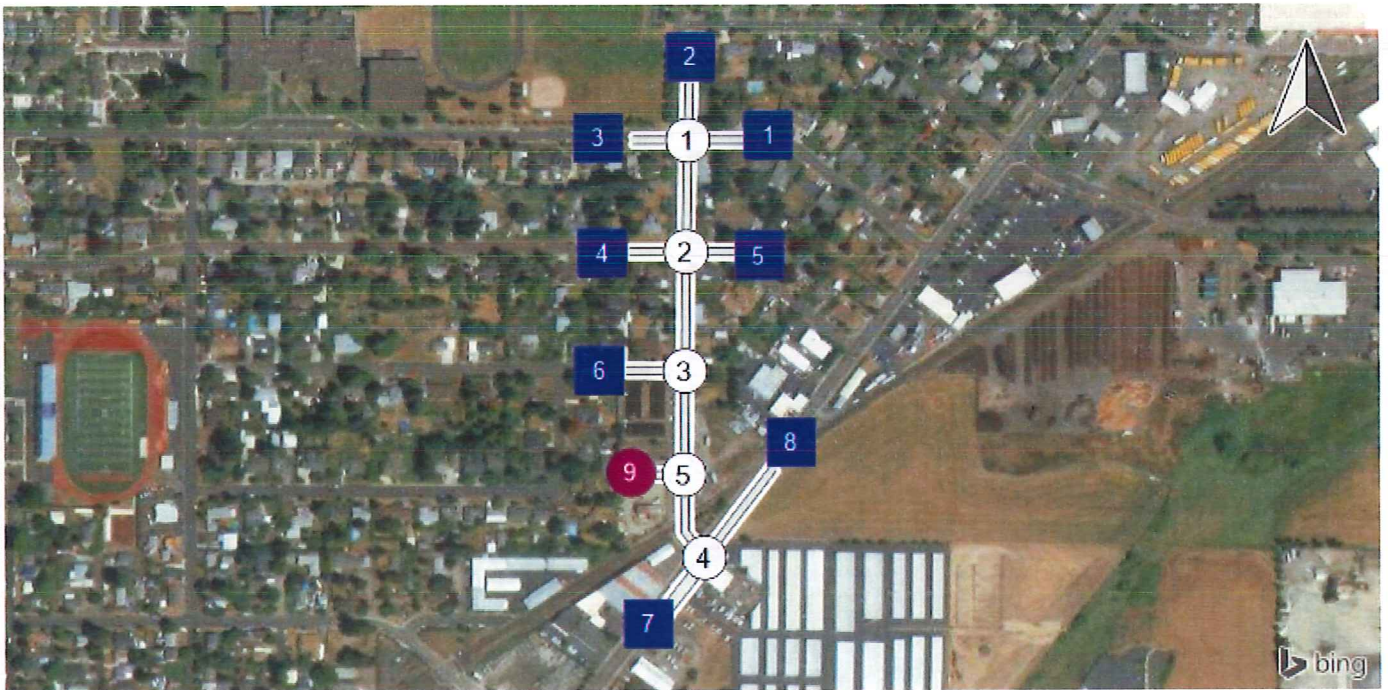
Report File: J:\...\18-379 PM Future 2028.pdf

4/3/2018

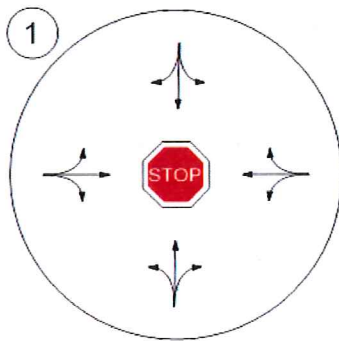
Trip Distribution summary

| Zone / Gate | Zone 9: McDaniel St Apts | | | |
|--------------|--------------------------|----------|------------------------|----------|
| | To McDaniel St Apts: | | From McDaniel St Apts: | |
| | Share % | Trips | Share % | Trips |
| 1: Gate | 10.00 | 1 | 10.00 | 1 |
| 2: Gate | 0.00 | 0 | 0.00 | 0 |
| 3: Gate | 20.00 | 2 | 20.00 | 1 |
| 4: Gate | 0.00 | 0 | 0.00 | 0 |
| 5: Gate | 0.00 | 0 | 0.00 | 0 |
| 6: Gate | 0.00 | 0 | 0.00 | 0 |
| 7: Gate | 40.00 | 5 | 40.00 | 2 |
| 8: Gate | 0.00 | 0 | 0.00 | 0 |
| Total | 70.00 | 8 | 70.00 | 4 |

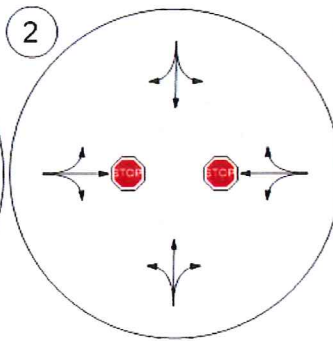
Report Figure 1: Lane Configuration and Traffic Control



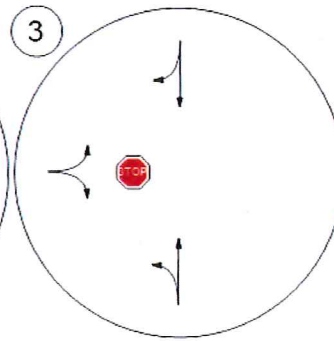
McDaniel at 19th St



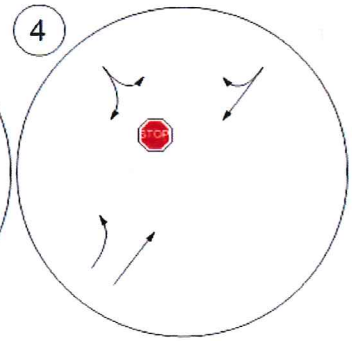
McDaniel at 18th St



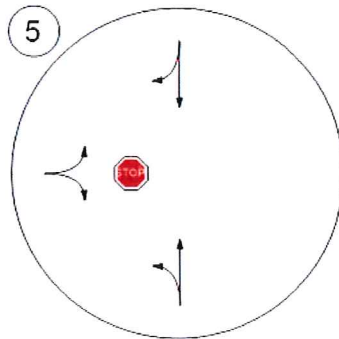
McDaniel at 17th St



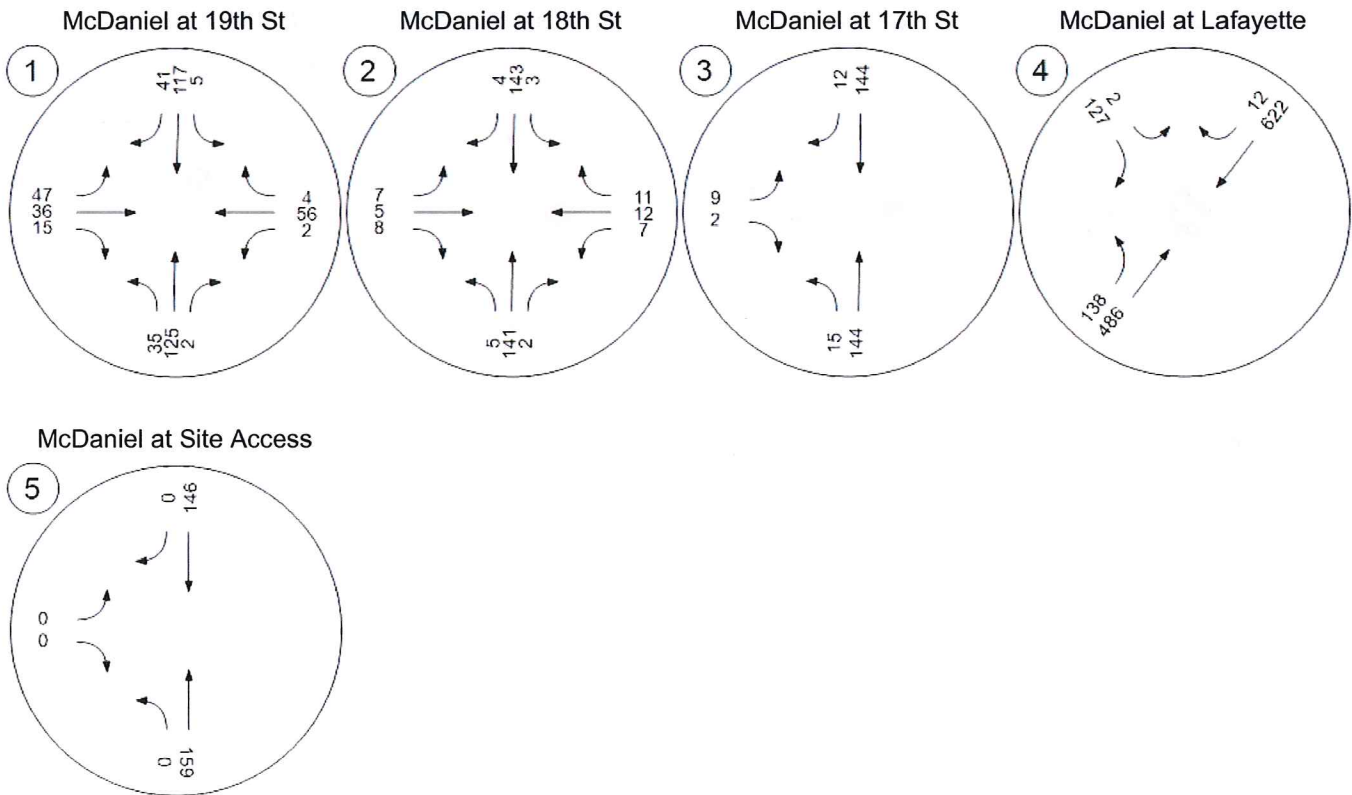
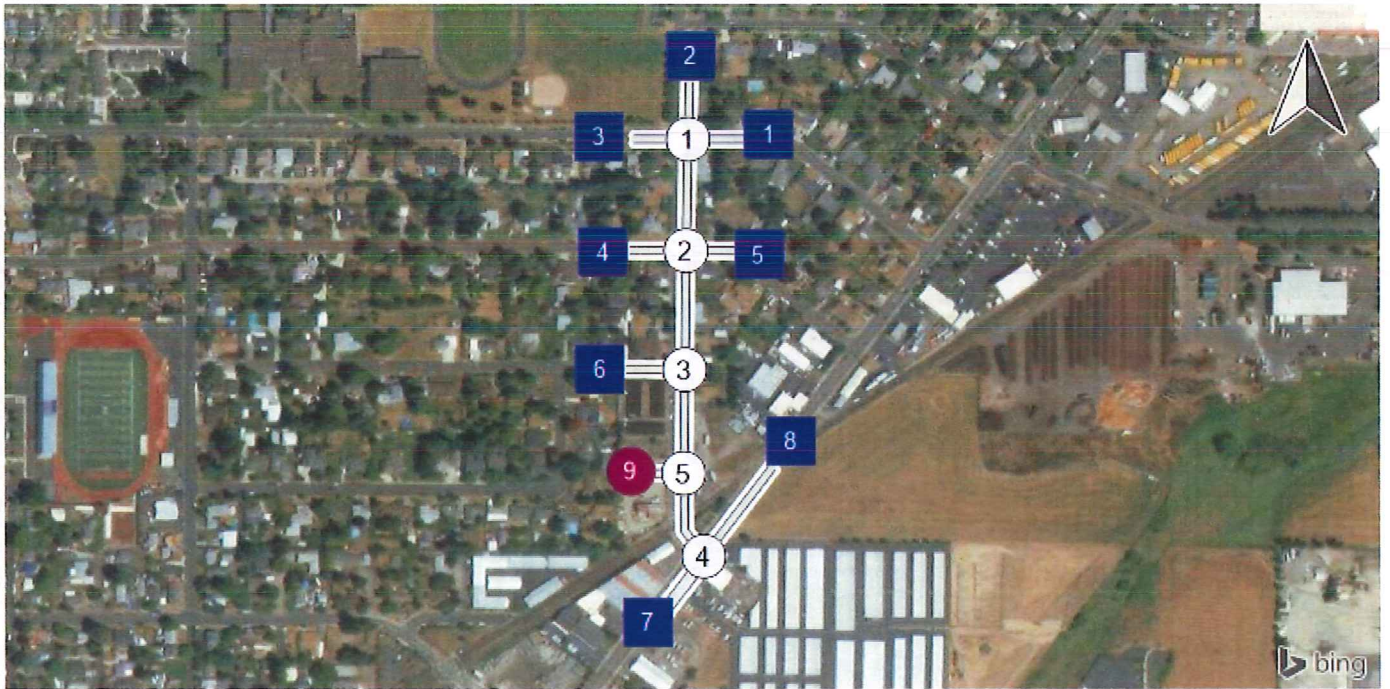
McDaniel at Lafayette



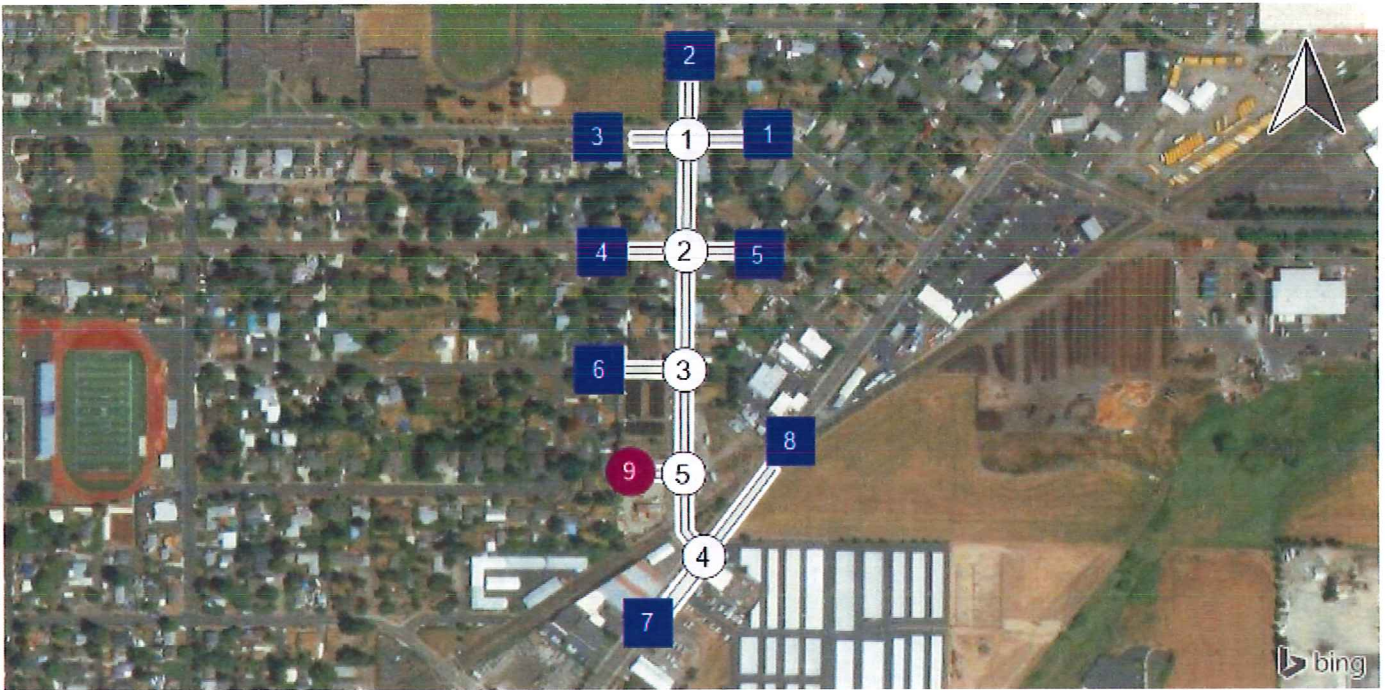
McDaniel at Site Access



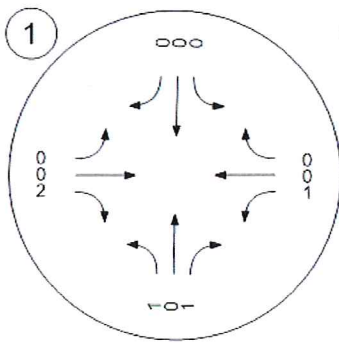
Report Figure 2a: Traffic Volume - Base Volume



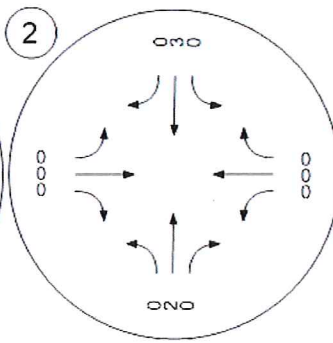
Report Figure 2d: Traffic Volume - Net New Site Trips



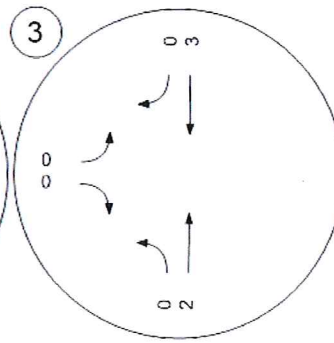
McDaniel at 19th St



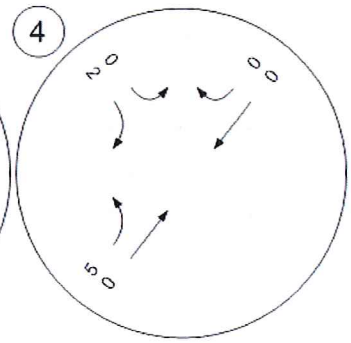
McDaniel at 18th St



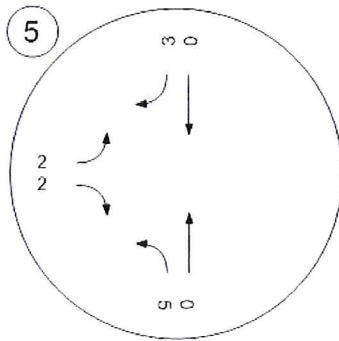
McDaniel at 17th St



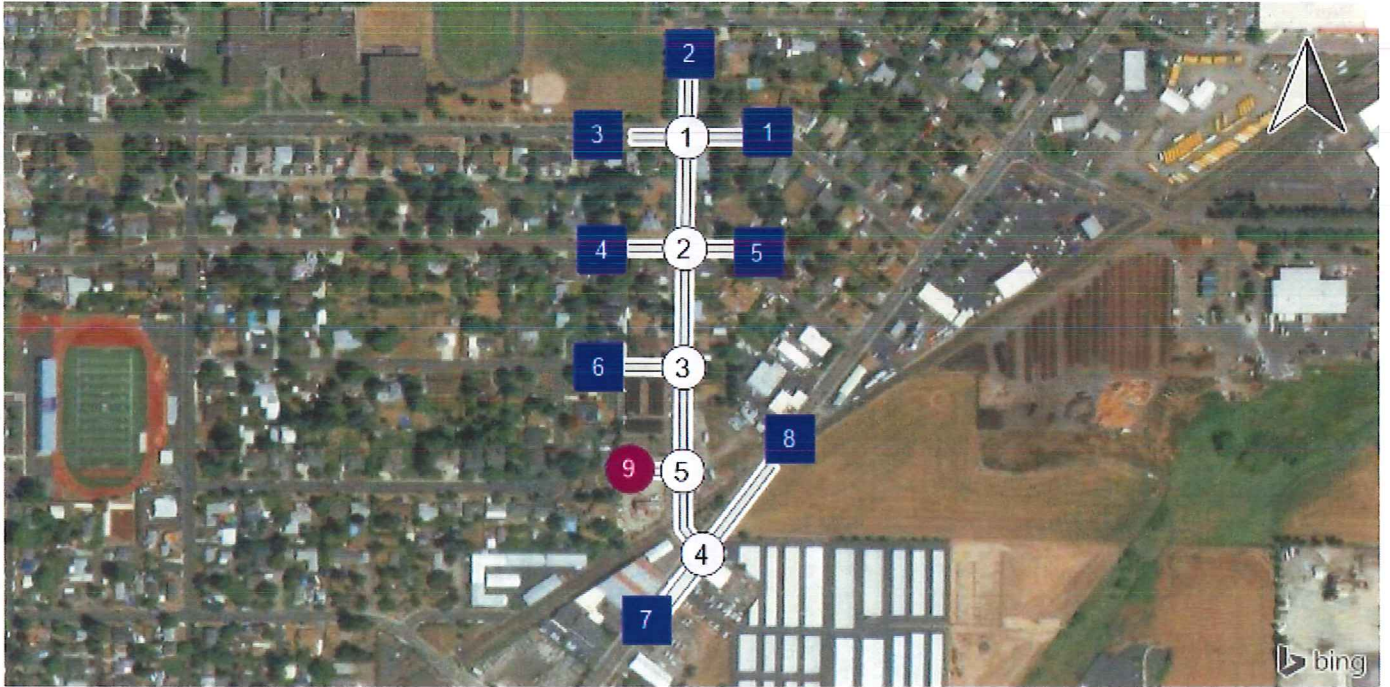
McDaniel at Lafayette



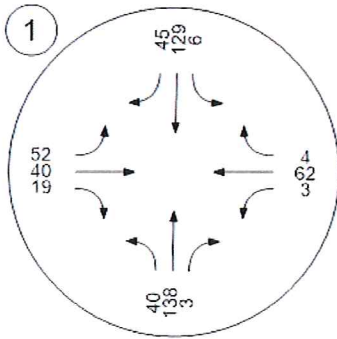
McDaniel at Site Access



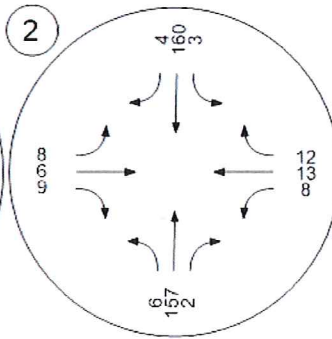
Report Figure 2f: Traffic Volume - Future Total Volume



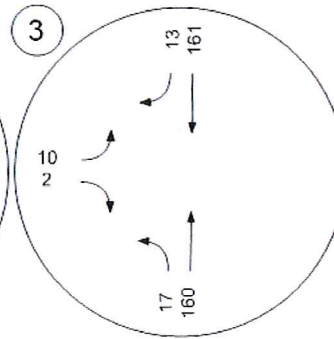
McDaniel at 19th St



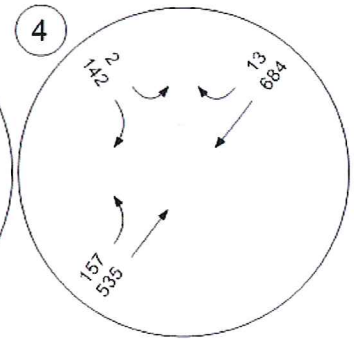
McDaniel at 18th St



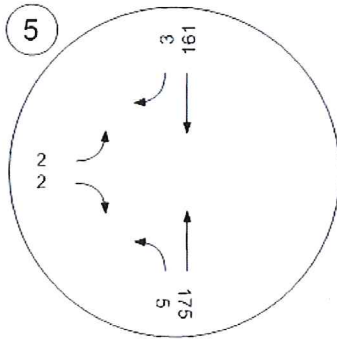
McDaniel at 17th St



McDaniel at Lafayette



McDaniel at Site Access



Report Figure 3: Traffic Conditions

