

1030 Young Street

Transportation Impact Analysis (Revised) Woodburn, Oregon

Date:

April 28, 2023

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RENEWS: 12/31/2023

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Executive Summary

- 1. The proposed development will construct 94 multi-family housing units on currently undeveloped land located at 1030 Young Street in Woodburn, Oregon.
- 2. The trip generation calculations show that the proposed multi-family development is projected to generate 52 morning peak hour trips, 61 evening peak hour trips, and 678 weekday site trips.
- 3. Based on the most recent five years of crash data, one of the study intersections have crash rates that exceed the 90th percentile rates identified by ODOT for similar types of intersections and two are identified on the ODOT SPIS List. Potential intersection improvements have been identified in the Woodburn TSP at these intersections.
- 4. All other study intersections had no significant trends or crash patterns that were identified, and no safety mitigation is recommended per the crash data analysis.
- 5. Adequate sight distances are available at the proposed site access intersection to allow for safe operation along Young Street.
- 6. Preliminary traffic signal warrants are not projected to be met for any of the unsignalized study intersections upon full buildout of the proposed development.
- 7. All study intersections are currently operating acceptably per City of Woodburn and ODOT standards and are projected to continue operating acceptably through the 2025 site buildout year. No operational mitigation is necessary or recommended at these intersections.
- 8. In general, changes in 95th percentile queuing between the year 2025 background and buildout conditions are anticipated to be small, one or two vehicles. No queuing related mitigation is necessary or recommended.



Project Description

Introduction

The proposed development will construct 94 multi-family housing units on currently undeveloped land located at 1030 Young Street in Woodburn, Oregon. This report addresses the impacts of the project on the nearby street system. Based on correspondence with City of Woodburn staff, the report conducts safety and operational analyses at the following intersections:

- 1. OR-99E (Pacific Highway) at Young Street/OR-214
- 2. OR-99E (Pacific Highway) at E Cleveland Street
- 3. Bryan Street/Site Access at Young Street

The purpose of this study is to provide an analysis of potential traffic impacts of the proposed development on the surrounding transportation system and to recommend any required mitigative measures. Detailed information on traffic counts, trip generation calculations, safety analyses, and level of service calculations are included in the appendices to this report.

Location Description

The subject property is located west of Pacific Highway (OR-99E), south of Young Street, and north of Cleveland Street. Surrounding land uses include residential to the west and commercial along OR-99E. The site encompasses 3.18 acres and is zoned Mixed Use Village (MUV). The project site is shown in Figure 1. A site plan is included in Appendix A.



Figure 1: Project Location (Image from City of Woodburn Online GIS)



The site will take access from Young Street. Willamette Valley Railway abuts the southern boundary of the site providing a barrier to any connection with E Cleveland Street. One site access is proposed to be aligned opposite Bryan Street.

Vicinity Streets

Four roadways near the site are anticipated to carry the majority of site trips to and from the project site. Table 1 provides a description of each of the vicinity roadways.

Table 1: Vicinity Roadway Descriptions

Street Name	Functional Classification	Travel Lanes	Speed (MPH)	Curbs & Sidewalks	On-Street Parking	Bicycle Lanes
		Jurisdiction	n: ODOT			
OR-99E (Pacific Highway)	Regional Highway Major Arterial (City)	2-5	35	Partial	Not Permitted	None
OR-214 (Young Street East)	District Highway Major Arterial (City)	2-3	35	None	No Permitted	None
	Jurisc	liction: City	of Woodburr	1		
Young Street West	Minor Arterial	3	25	Both Sides	Not Permitted	Yes
E Cleveland Street	Service Collector	2-3	25	Southern Side	Not Permitted	None
Bryan Street	Local Street	2	25	Partial	Permitted	None

Functional classification based on Woodburn Transportation System Plan (September 2019).

Study Intersections

Most of the site trips generated by the proposed multi-family development are expected to impact three existing nearby intersections of significance. The project will construct the fourth leg of the intersection of Young Street at Bryan Street.

A vicinity map displaying the project site, vicinity streets, and the study intersections with their associated lane configurations, under existing and proposed conditions, is shown in Figure 2. A summarized description of these intersections is provided in Table 2.



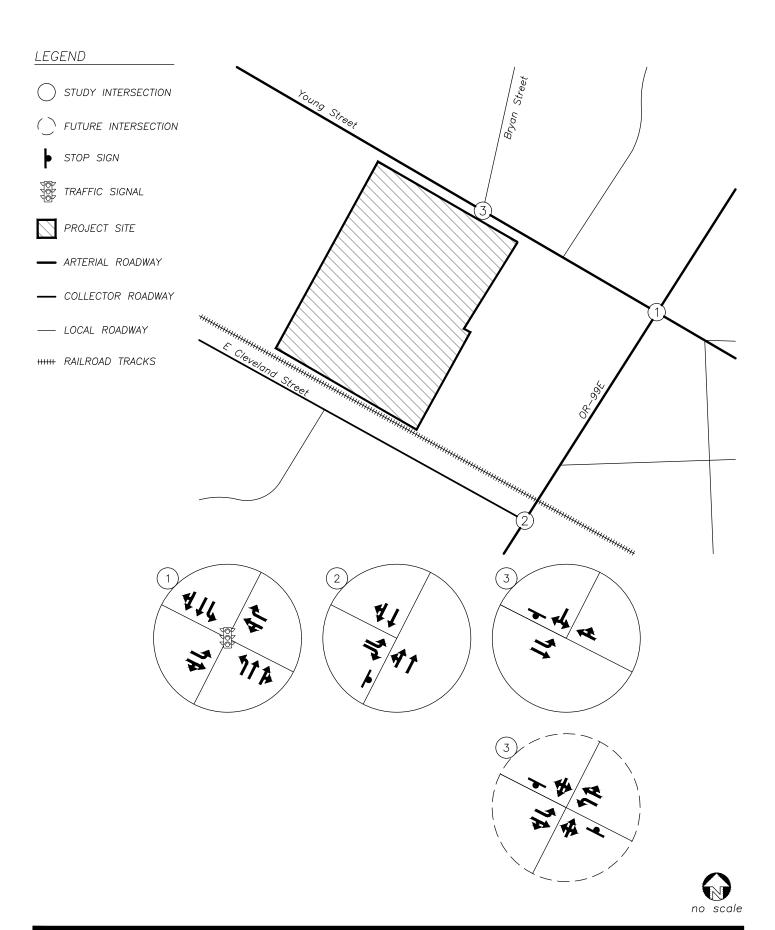
Table 2: Vicinity Intersection Descriptions

Intersection		Geometry	Traffic Control	Phasing/Stopped Approaches
1	OR-99E at Young Street	Four-Legged	Signalized	Protected/FYA NB/SB Left Turns, Permitted EB/WB Left Turns
2	OR-99E at E Cleveland Street	Three- Legged	Stop- Controlled	Eastbound Stop-Controlled
3	Young Street at Bryan Street	Three- Legged	Stop- Controlled	Southbound Stop-Controlled

Public Transit

The Woodburn Transit System provides a single, fixed loop around Woodburn that starts and stops at the Downtown Transit Center, with notable stops at the Woodburn Premium Outlets, Walmart, Bi-Mart, Safeway, and Goodwill. The nearest bus stop to the site is located along the site frontage, near the access intersection at Bryan Street. Weekday service is scheduled from approximately 8:00 AM to 6:00 PM and has headways of approximately 60 minutes. Saturday service is scheduled from approximately 9:00 AM to 5:00 PM and has headways of approximately 60 minutes. Sunday service is scheduled from approximately 9:00 AM to 3:00 PM and has headways of approximately 60 minutes.







Site Trips

Trip Generation

The proposed development will include the construction of 94 multifamily units on currently undeveloped land. To estimate the number of trips that will be generated by the townhome development, trip equations from the *Trip Generation Manual* ¹ were used. Land use code 220, *Multi-Family Housing (Low-Rise)*, includes apartments, townhouses, and condiminiums located within the same building with at least three other dwelling units and that have two or three floors. Lande use code 221, *Multi-Family Housing (Mid-Rise)*, includes apartments and condiminiums located in a building that has between four and 10 floors or living space. The proposed development consists of three floors, therefore, data from land use code 220, *Multi-Family Housing (Low-Rise)*, was used to estimate the trip generation of the project based on the number of dwelling units.

The trip generation calculations show that the proposed development is projected to generate 52 morning peak hour trips, 61 evening peak hour trips, and 678 weekday site trips. The trip generation estimates are summarized in Table 3. Detailed trip generation calculations are included in Appendix A.

Table 3: Trip Generation Summary

Lond Hoo	ITE Code	Size	Mc	rning Pea	k Hour	Eve	ning Peak	Hour	Weekday
Land Use	TTE Code	Size	In	Out	Total	In	Out	Total	Total
Multi-Family Housing (Low-Rise)	220	94 units	12	40	52	38	23	61	678

Trip Distribution

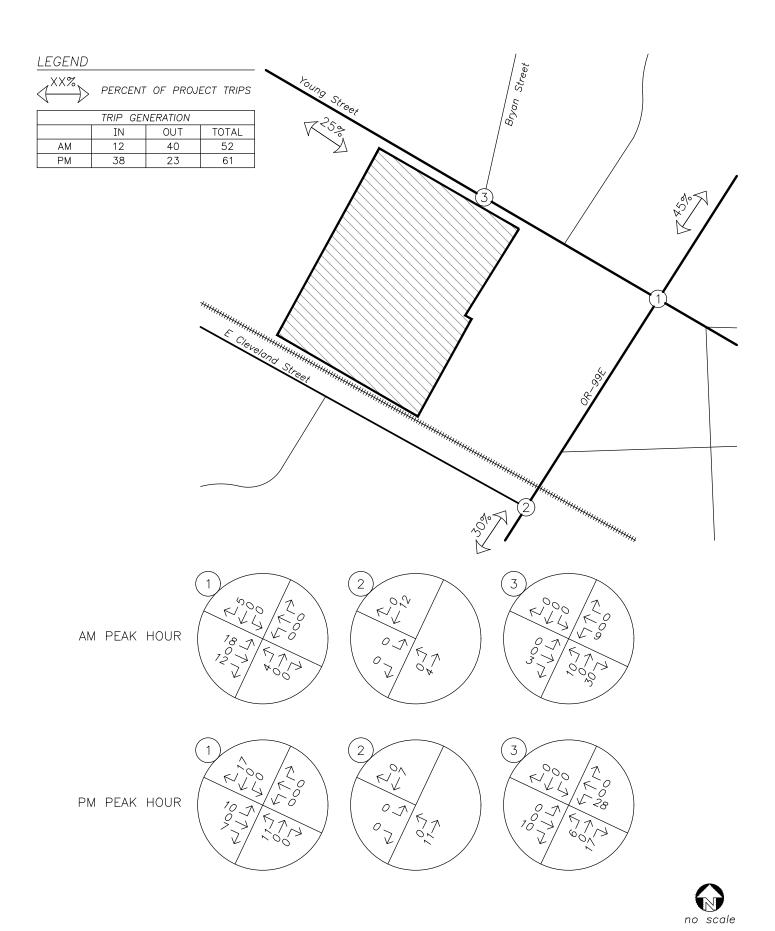
The directional distribution of site trips to and from the proposed development was estimated based on locations of likely trip destinations and locations of major transportation facilities in the site vicinity. The following trip distribution was estimated and used for analysis:

- Approximately 45 percent of site trips will travel to/from the north along OR-99E
- Approximately 25 percent of site trips will travel to/from the west along Young Street to access Interstate 5 northbound and school or other local destinations
- Approximately 30 percent of site trips will travel to/from the south along OR-99E

The trip distribution and assignment for the site trips generated during the morning and evening peak hours is shown in Figure 3.

¹ Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 11th Edition, 2021.







Traffic Volumes

Existing Conditions

Traffic counts were collected at the study intersections along OR-99E on Tuesday, January 31, 2023, from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM. For the intersection of Bryan Street at Young Street, peak hour through volumes along Young Street from the intersection of Young Street at OR-99E were used. For the existing turning movement counts to and from Bryan Street, peak hour observations were made during the morning and evening peak hours.

Since OR-99E is under the jurisdiction of ODOT, procedures described in ODOT's *Analysis Procedures Manual* (APM)² were used to seasonally adjust existing traffic volumes to reflect the 30th highest hour volumes in a typical year. Using a map of seasonal trends, this portion of OR-99E was determined to show a communter trend, and a seasonal adjustment factor (SAF) of 1.215 was applied to through volumes along OR-99E. Raw count data is included in Appendix B.

Figure 4 shows the existing adjusted morning and evening peak hour traffic volumes at the study intersections.

Background Conditions

To provide analysis of the impact of the proposed development on the nearby transportation facilities, an estimate of future traffic volumes is required. Future traffic volumes for ODOT highways are projected using growth rates calculated based on data from ODOT's future volumes table. Growth rates were applied to the existing traffic volumes over a two-year period to determine year 2025 background volumes. Table 4 summarizes the growth rates used for analysis.

Table 4: Growth Rate Assumptions

Facility	Growth Rate
OR-99E	1.9% per year (linear)
OR-214	1.1% per year (linear)
City of Woodburn roadways	1% per year (compounded)

In addition to the general growth, in-process trips associated with the following previously-approved developments were added to the background volumes to represent future traffic volumes at the study intersections prior to approval of the proposed multi-family development:

- Amazon Warehouse (Project Basie)
- Woodburn East Apartments
- Woodburn Place apartments (two phases)

² ODOT, Analysis Procedures Manual Version 2, October 2020.



• 119 N Pacific Highway Apartments

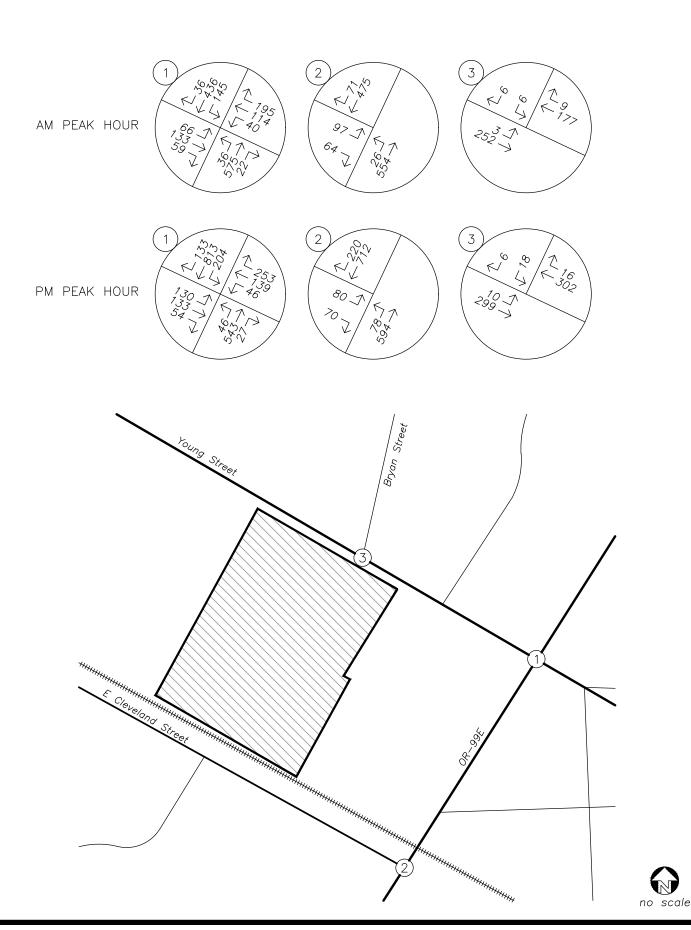
Figure 5 shows the projected year 2025 background traffic volumes at the study intersections during the morning and evening peak hours.

Buildout Conditions

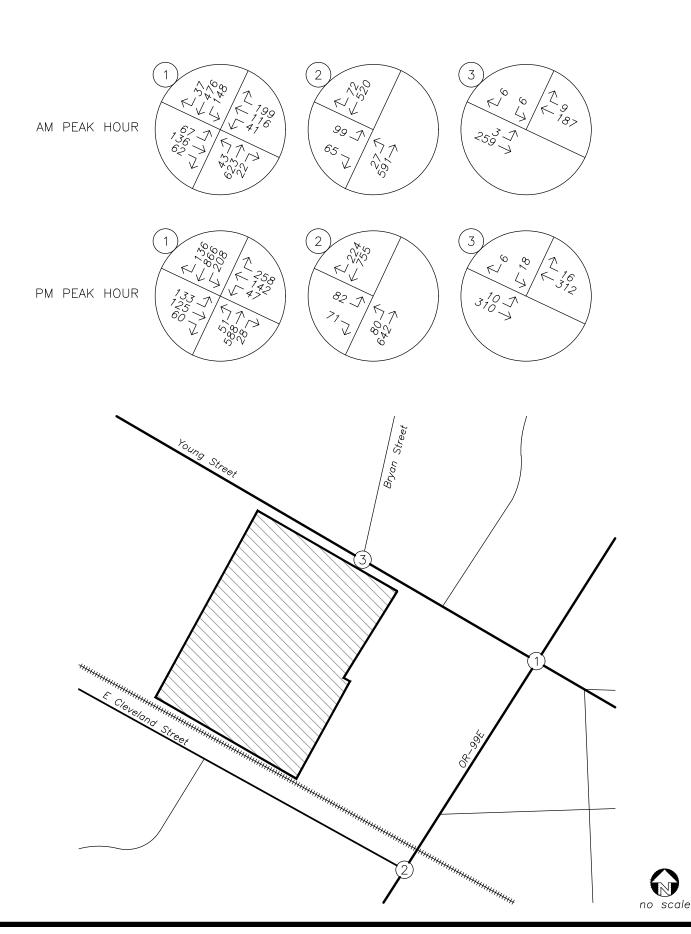
The peak hour trips projected to be generated by the proposed development, as described earlier within the *Site Trips* section, were added to the projected year 2025 background traffic volumes to obtain the expected 2025 site buildout volumes.

Figure 6 shows the projected year 2025 buildout traffic volumes at the study intersections during the morning and evening peak hours.

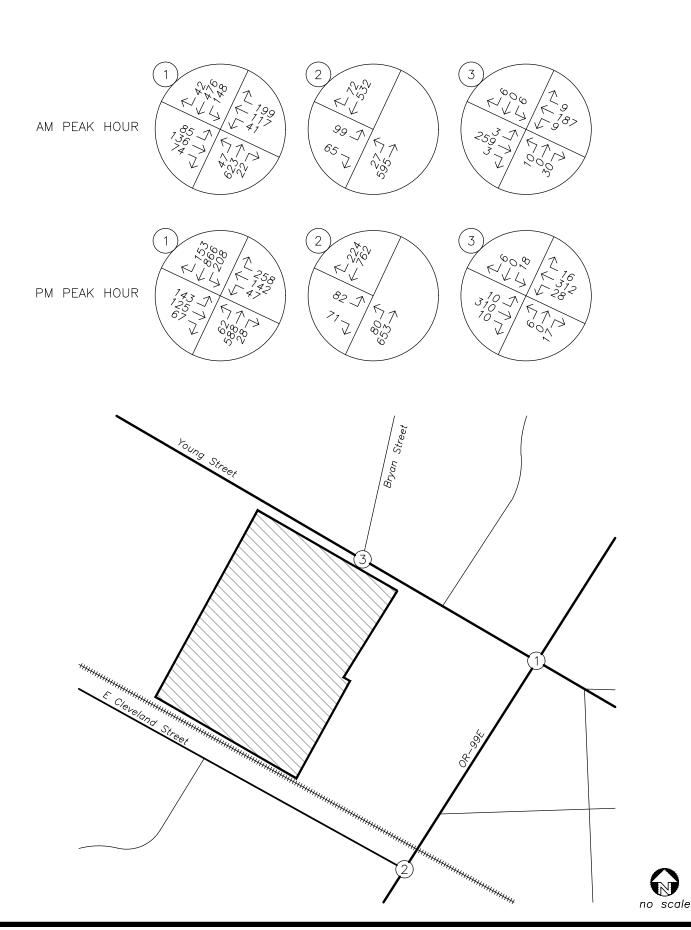














Safety Analysis

Crash History Review

Using data obtained from the ODOT Crash Data System, a review of the most recent available five years of crash history (January 2016 to December 2020) was performed at the study intersections. The crash data were evaluated based on the number of crashes, the type of collisions, and the severity of the collisions. Crash severity is based on injuries sustained by people involved in the crash, and includes five categories:

- Property Damage Only (PDO)
- Possible Injury (Injury C)
- Non-Incapacitating Injury (Injury B)
- Incapacitating Injury (Injury A)
- Fatality or Fatal Injury

Crash rates provide the ability to compare safety risks at different intersections by accounting for both the number of crashes that have occurred during the study period and the number of vehicles that typically travel through the intersection. Crash rates were calculated using the common assumption that traffic counted during the evening peak hour represents approximately 10 percent of the annual average daily traffic (AADT) at the intersection.

Table 5 provides a summary of crash types while Table 6 summarizes crash severities and rates for each of the study intersections. Detailed crash data is included in Appendix C.

Table 5: Crash Type Summary

		Crash Type							
	Intersection	Turn	Rear End	Angle	Side swipe	Fixed Object	Ped/ Bike	Total Crashes	
1	OR-99E at Young Street	15	12	5	3	1	0	36	
2	OR-99E at E Cleveland Street	28	20	0	1	2	1	52	
3	Bryan Street at Young Street	0	1	0	0	0	1	2	

Table 6: Crash Severity and Rate Summary

	Intomostica		Severity					ADT	Crash	90 th %
	Intersection	PDO	С	В	Α	Fatal	Crashes	ADI	Rate	Rate
1	OR-99E at Young Street	17	16	3	0	0	36	25,110	0.79	0.860
2	OR-99E at E Cleveland Street	16	25	10	1	0	52	17,540	1.62	0.293
3	Bryan Street at Young Street	0	1	1	0	0	2	6,510	0.17	N/A

ODOT 90th Percentile Crash rates are from the Analysis Procedures Manual Version 2 (2019), Exhibit 4.1, p.4-3.



Crash Severity

The intersection of OR-99E at E Cleveland Street had one crash resulting in an Injury A classification. The crash occurred when a southbound passenger vehicle was following too closely to the vehicle in front of them. The driver in the striking vehicle sustained no injury. A passenger in the struck vehicle sustained injuries classified as Injury A. The driver and another passenger in the struck vehicle reported possible injuries. The collision occurred under clear, dry, daytime conditions.

Pedestrian and Bicycle Collisions

The intersection of OR-99E at E Cleveland Street had one crash involving a pedestrian. A southbound vehicle struck a pedestrian whole was illegally in the roadway. The pedestrian sustained a possible injury consistent with injury classification C. The collision occurred under wet, rainy, and dimly lit conditions.

The intersection of Bryan Street at Young Street has one crash involving a bicyclist. A left-turning westbound vehicle which did not have right-of-way over the cyclist struck an eastbound cyclist. The pedestrian suffered injuries consistent with the classification Injury B. The collision occurred under wet, rainy, and dark conditions.

ODOT 90th Percentile Crash Rates

Intersection crash rates were compared to the published statewide 90th percentile crash rates within ODOT's *Analysis Procedures Manual (APM)*. According to Exhibit 4-1: Intersection Crash Rates per MEV by Land Type and Traffic Control in the APM, intersections which experience crash rates in excess of 90th percentile crash rates should be "flagged for further analysis".

One of the study intersections was calculated to have a crash rate that exceeds the 90th percentile crash rate for similar intersections:

OR-99E at E Cleveland Street

The intersection of OR-99E at E Cleveland Street had 52 crashes over the five-year analysis period. Twenty-eight (28) of these crashes were reported as turning movement collisions and 20 were reported as rear-end collisions. The primary cause was not yielding to the right-of way of the through traffic. The intersection is currently unsignalized, with the eastbound approach under stop-control. OR-99E has four lanes of travel, with no center turn lane or refuge, which contributes to the frequency of rear-end collisions.

The Woodburn TSP identifies intersection capacity improvement but does not specify any safety improvements at the intersection. The capacity improvement is identified as a traffic signal (if warranted), turn lanes, or roundabout at this location in coordination with ODOT. Consideration should be given to railroad preemption and the proximity to the signalized intersection at OR-99E at Young Street. Installing a traffic signal to protect the turning movements could potentially reduce the frequency of these collisions, however, as shown in the Warrant Analysis section, due to low minor street volumes, the preliminary traffic signal warrant is not met for this intersection. Additionally, ODOT's region traffic engineer has noted installation of a traffic signal at this location would be problematic due to its close proximity to the fully controlled intersection of Young Street at OR-99E.

Restriping OR-99E to replace one of the northbound lanes with a center turn lane until the roadway widens to five lanes north of Silverton Avenue could potentially improve the safety of the intersection. Separating the left-



turn movement from the through movement could reduce the rate of rear-end collisions at the intersection. Allowing for a two-stage left-turn movement could potentially reduce the rate of turn collisions.

The proposed project is estimated to generate 18 evening peak hour trips at the study intersection, which is 0.97 percent of the total year 2025 buildout volume of 1,861 trips through the intersection. All site trips will be traveling through the intersection; none will be turning.

ODOT SPIS Review

The ODOT 2020 Safety Priority Index System (SPIS) list is based on reported crash data for the years 2017 through 2019. Two of the study area intersections was listed in the worst 15 percent of the SPIS list:

- OR-99E at Young Street 90-95th percentile
- OR-99E at E Cleveland Street 85-90th percentile

These findings coincide with other factors in the crash review, including high crash rates and locations with crashes that resulted in an Injury A classification.

The intersection of OR-99E at E Cleveland Street is discussed in the previous section. For context regarding the intersection of OR-99E at Young Street, see below.

OR-99E at Young Street

The Woodburn TSP identifies intersection capacity improvement but does not specify any safety improvements at the intersection. The capacity improvement is identified installing a third westbound lane to provide separate left, thru, and right turn lanes in coordination with ODOT, as well as implement protected/permissive left-turn phasing for the east and westbound approaches.

The proposed project is estimated to generate 45 evening peak hour trips at the study intersection, which is 1.7 percent of the total year 2025 buildout volume of 2,662 trips through the intersection.

Conclusion

Based on a review of the most recent five years of available crash data, one of the study intersections has a crash rate that exceed the 90th percentile rates identified by ODOT for similar types of intersections and both highway intersections are identified within the worst 15 percent in ODOT's SPIS database. The Woodburn TSP has projects identified at some of these locations.

All other study intersections had no significant trends or crash patterns that were identified, and no safety mitigation is recommended per the crash data analysis.

Sight Distance Evaluation

A sight distance analysis was conducted at the site access proposed on Young Street. To evaluate the sight distance available, intersection sight distance was measured and recommended in accordance with the standards established in *A Policy on Geometric Design of Highways and Streets*³. According to AASHTO, the

³ American Association of State Highway and Transportation Officials (AASHTO), A Policy on Geometric Design of Highways and Streets, 7th Edition, 2018.



driver's eye is assumed to be 14.5 feet from the near edge of the nearest travel lane of the intersecting street and at a height of 3.5 feet above the approach street pavement. The vehicle driver's eye height is assumed to be 3.5 feet above the cross-street pavement.

Based on the posted speed of 25 mph along Young Street, the minimum recommended intersection sight distance (ISD) is 295 feet and the minimum required stopping sight distance (SSD) is 155 feet.

Looking east from the proposed access, the available sight distance was measured to be 380 feet (to the intersection of Young Street at OR-99E). Looking west from the proposed access, the available sight distance was measured to be in excess of 400 feet.

Conclusion

Adequate sight distances are available at the proposed site access location. No mitigation is recommended or necessary in conjunction with the proposed development.

Warrant Analysis

Preliminary traffic signal warrants were examined for the study intersections near the site where such treatments would be applicable. Detailed information on the warrant analyses is included in Appendix C.

Preliminary Traffic Signal Warrants

Preliminary traffic signal warrants were examined for all unsignalized study intersections in order to determine whether the installation of a new traffic signal will be warranted at the intersections by the 2025 site buildout year. Methodologies were based on the *Manual on Uniform Traffic Control Devices*⁴ (MUTCD). Warrant 1, Eight-Hour Vehicular Volumes, was evaluated based on the common assumption that traffic counted during the evening peak hour represents 10 percent of the average daily traffic (ADT) and that the 8th highest hour is 5.65 percent of the daily volume.

Preliminary traffic signal warrants are not projected to be met for any of the unsignalized study intersections upon full buildout of the project.

Assessment of Pedestrian, Bicycle, and Transit Modes

Pedestrian Facilities

Omitting the subject site, contiguous sidewalks are provided along Young Street. Continuous sidewalks are provided along OR-99E and intermittent sidewalks are provided along Bryan Street. E Cleveland Street has sidewalks on the south side but not along the north side where the railroad line is present.

The development of the site will fill the current sidewalk gap along the southern side of the roadway, consistent with planned improvements in the TSP. Additionally, the project will construct a ped/bike path along the southern property line which connects to Young Street via paths through the center and along the western boundary of the site.

⁴ Federal Highway Administration, Manual om Uniform Traffic Control Devices, 2009



Pedestrians have continuous sidewalks that allow access to numerous destinations. Sidewalks along Young Street and Gatch Street provide access to Washington Elementary School. Sidewalks along Front Street and Parr Road to the Settlemier Park, Heritage Elementary School, Valor Middle School, and Centennial Park. Sidewalks along Front Street and S Settlemier Avenue provide pedestrian access into the neighborhoods, downtown Woodburn, and other schools and parks.

Bicycle Facilities

Bicycle lanes are provided along both sides of Young Street but other higher classification roadways currently have no bike lanes. However, neighborhood streets not listed as bicycle routes in the immediate site vicinity are typically low-stress roadways that provide alternative routes to other nearby bicycle paths. There are 104 bicycle parking spaces which will be provided on-site.

Transit Facilities

The nearest bus stop to the site is located along the site frontage, near the existing intersection of Bryan Street at Young Street.

Planned Improvements

There are two planned pedestrian and bicycle projects listed in the Woodburn TSP which will provide connections between the proposed development and existing infrastructure and enhance safety for vulnerable roadway users. These projects are listed in Table 8.

Table 7: Active Transportation Projects in Woodburn TSP

Project Number	Location	Description
P11	Young Street	Fill in gaps
B3	OR-99E from Lincoln Street to southern City boundary	Widen roadway and install bike lanes in coordination with ODOT



Operational Analysis

A capacity and delay analysis was conducted for each of the study intersections per the signalized and unsignalized intersection analysis methodologies in the *Highway Capacity Manual* ⁵ (HCM). Intersections are generally evaluated based on the average control delay experienced by vehicles and are assigned a grade according to their operation. The level of service (LOS) of an intersection can range from LOS A, which indicates very little or no delay experienced by vehicles, to LOS F, which indicates a high degree of congestion and delay. The volume-to-capacity (v/c) ratio is a measure that compares the traffic volumes (demand) against the available capacity of an intersection.

The analysis was performed using the Synchro (version 11) software. The overall signalized v/c ratios were calculated following the methodologies in Chapter 16 of the ODOT APM for the critical intersection v/c ratio. This methodology was performed for all signalized intersections.

Performance Standards

All study intersections must comply with adopted operating standards, and intersection performance measures used for operating standards vary by roadway jurisdiction. The following agency mobility standards are applicable in the study area:

- The **City of Woodburn** has the following mobility standards per the Woodburn Development Ordinance⁶:
 - For an unsignalized intersection, the minimum v/c ratio shall be 0.95 or lower for the major movement through the intersection, or if pre-development already operating at higher v/c, then at no higher v/c.
- ODOT has the following mobility targets in the study area per the Oregon Highway Plan⁷:
 - o OR-99E is a regional highway inside the urban growth boundary, with a posted speed of 35 mph. For non-MPOs outside of STAs, the target v/c ratio is 0.90.

Delay & Capacity Analysis

The v/c, delay, and LOS results of the capacity analysis are shown in Table 9 for the morning and evening peak hours. Detailed calculations as well as tables showing the relationship between delay and LOS are included in Appendix D.

⁷ Oregon Department of Transportation, *Oregon Highway Plan*, Table 6: Volume to Capacity Ratio Targets for Peak Hour Operating Conditions, 1999 Including amendments November 1999 through May 2015



⁵ Transportation Research Board, *Highway Capacity Manual*, 6th Edition, 2016.

⁶ City of Woodburn, Woodburn Development Ordinance, Amended by Ordinance 2603, effective June 30, 2022 (LA 21-02)

Table 8: Capacity Analysis Summary

Intersection & Condition	Mobility	AM Peak Hour			PM Peak Hour			
intersection & Condition	Standard	V/C	LOS	Delay (s)	V/C	LOS	Delay (s)	
	1	. OR-99E	at Young S	treet ¹				
2023 Existing Conditions		0.60	В	14	0.61	В	16	
2025 Background Conditions	0.90	0.63	В	14	0.63	В	16	
2025 Buildout Conditions		0.65	В	15	0.64	В	17	
	2. OR-99E at E Cleveland Street							
2023 Existing Conditions		0.40	D	27	0.80	F	111	
2025 Background Conditions ²	0.90	0.45	D	32	0.81	F	116	
2025 Buildout Conditions ²		0.46	D	43	0.84	F	124	
	3. Your	ng Street at	Site Access,	/Bryan Stree	et			
2023 Existing Conditions		0.02	А	10	0.04	В	11	
2025 Background Conditions	0.95	0.02	А	10	0.04	В	11	
2025 Buildout Conditions		0.06	В	10	0.05	В	12	

Table Notes:

All study intersections are currently operating acceptably per City of Woodburn and ODOT standards and are projected to continue operating acceptably through the 2025 site buildout year. No operational mitigation is necessary or recommended at these intersections.

Queuing Analysis

An analysis of projected queuing was conducted for the study intersections. The 95th percentile queue lengths were estimated based on the same Synchro/SimTraffic simulations used for the delay calculations. The 95th percentile queue is a statistical measurement which indicates there is a 5 percent chance that the queue may exceed this length during the analysis period; however, given this is a probability, the 95th percentile queue length may theoretically never be met or observed in the field.

The 95th percentile queue lengths reported in the simulation are presented in Table 9 for the morning and evening peak hours. All queues more than 5 feet longer than a multiple of 25 were rounded up to the nearest 25 feet, equivalent to an average vehicle length. Those that were 5 feet or less than a multiple of 25 were rounded down since 5 feet is equivalent to the space between queued vehicles. Detailed queuing analysis reports are included in Appendix D.



^{1.} The overall signalized v/c ratio for this intersection was calculated following the methodologies in Chapter 16 of the ODOT APM for the critical intersection v/c ratio.

^{2.} The peak hour factor for this intersection was increased to a minimum of 0.95 due to the substantial increase in background traffic.

Table 9: 95th Percentile Queueing Analysis Summary

lutama etiam /Massamant	Available	2025 Backgrou	und Queue (ft)	2025 Buildou	ut Queue (ft)
Intersection/Movement	Storage (ft)	Morning	Evening	Morning	Evening
	1.	OR-99E at You	ıng Street		
EB Left	95	125	150	125	150
WB Right	100	150	150	150	150
NB Left	110	100	125	125	125
SB Left	145	150	175	150	175
	2. C	R-99E at E Clev	eland Street		
EB Left	165	100	225	100	225
NB Left-Through	N/A	75	250	100	225
SB Through-Right	N/A	25	25	25	25
	3. Young	Street at Bryan	Street/Site Acce	ess	
EB Left-Through-Right	N/A	-	25	25	25
WB Left-Through-Right	N/A	-	-	25	50
NB Left-Through-Right	N/A	-	-	50	50
SB Left-Through-Right	N/A	50	50	50	50

BOLDED values indicate 95th percentile queue lengths that exceed available storage.

In general, changes in 95th percentile queuing between the year 2025 background and buildout conditions are anticipated to be small, one or two vehicles.

Based on the queuing evaluation, no queuing related mitigation is necessary or recommended.



Conclusions

The impacts of the proposed multi-family development were analyzed. Key findings include:

- Based on the most recent five years of crash data, one of the study intersections have crash rates that
 exceed the 90th percentile rates identified by ODOT for similar types of intersections and two are identified
 on the ODOT SPIS List. Potential intersection improvements have been identified in the Woodburn TSP at
 these intersections.
- All other study intersections had no significant trends or crash patterns that were identified, and no safety mitigation is recommended per the crash data analysis.
- Adequate sight distances are available at the proposed site access intersection to allow for safe operation along Young Street.
- Preliminary traffic signal warrants are not projected to be met for any of the unsignalized study intersections upon full buildout of the proposed development.
- All study intersections are currently operating acceptably per City of Woodburn and ODOT standards and
 are projected to continue operating acceptably through the 2025 site buildout year. No operational
 mitigation is necessary or recommended at these intersections.
- In general, changes in 95th percentile queuing between the year 2025 background and buildout conditions are anticipated to be small, one or two vehicles. No queuing related mitigation is necessary or recommended.



Appendix A – Site Information

Site Plan

Trip Generation Calculations





SITE PLAN GENERAL NOTES:

- 1. REFER TO LANDSCAPE PLANS FOR ADDITIONAL PEDESTRIAN WALKS AND PLANTING INFORMATION.
- 2. ANY GRADING AND UTILITIES (BOTH EXISTING AND NEW) ARE SHOWN FOR REFERENCE ONLY REFER TO CIVIL DRAWINGS.
- 3. SITE PAVEMENT MATERIAL AND DESIGN PER CIVIL. MAX. SPACE BETWEEN JOINTS TO BE 10'-0".
- 4. REFER TO PLUMBING DRAWINGS FOR HOSE BIB LOCATIONS.
- 5. LIGHTING TO BE INSTALLED AT PATHS ALONG THE REQUIRED EXIT WAYS REFER TO ELECTRICAL SITE PLAN.
- ALL GROUND MOUNTED UTILITY EQUIPMENT SHALL BE SCREENED FROM THE STREET AND THE BUILDING WITH LANDSCAPE VERIFY LOCATION WITH EACH UTILITY PROVIDER AND COORDINATE WITH LANDSCAPING AS NEEDED.
- 7. ANY WALL PACK LIGHTING PROVIDED TO BE SHIELDED.
- 8. THE RUNNING SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:20. THE CROSS SLOPE OF A WALKING SURFACE SHALL NOT BE STEEPER THAN 1:48.
- PARKING SPACES AND ACCESS AISLES SHALL HAVE A SURFACE SLOPES NOT STEEPER THAN 1:50 (2%) PER IBC.
- 10. ANY RETAINING WALLS, BERMS, SWALES, ETC. SHOWN FOR REFERENCE ONLY REFER TO CIVIL DRAWINGS.
- 11. ALL WALL MOUNTED UTILITIES AND ASSOCIATED EQUIPMENT SHALL BE PAINTED TO MATCH ADJACENT BUILDING COLOR.

SITE PLAN LEGEND

(NOTE: SEE A0 SHEETS FOR ADDITIONAL GENERAL LEGEND INFORMATION)

OBJECT/PATTERN	DESCRIPTION(S)
	- PROPERTY LINE
	- SETBACK LINES
	- ROOF OUTLINE
xxx	- FENCE LINE
	- ACCESSIBLE PATH FROM BUILDING TO PUBLIC WAY
	- BUILDING FOOTPRINT
	- AMENITY SPACE
	- GRASSCRETE FIRE ACCESS DRIVE
+	- PROPERTY DATUM POINT
•	- REMOVABLE BOLLARDS
EV	- ELECTRIC VEHICLE CHARGING STATION AT PARKING LOCATION

SITE INFORMATIO	N
LOT AREA	138,679 SF
ZONE	MUV - MIXED USE VILLAGE
USES	MULTI-FAMILY HOUSING
# UNITS	94
MAX. LOT WIDTH	446'-2 1/4"
MAX. LOT DEPTH	323-6 1/2"

UNITS

TYPE	AREA (SF)	COUNT
1-BEDROOM	788	48
2-BEDROOM	984	46
	•	

BUILDING COVERAGE

DESCRIPTION	AREA (SF)	% OF SITE
BUILDING FOOTPRINT	35,996	26 %
PAVING	64,439	46 %
SIDEWALKS	13,420	10 %
LANDSCAPE AREA	24,824	18 %
COMMON AREA	39,538	29 %
IMPROVED COMMON AREA	450 DOG PARK, 140 PATIO	- %
INTERIOR IMPROVED*	1,294	
TOTAL SITE AREA	138,679	

^{*} BASED 12 SF / DWELLING UNIT

PARKING SCHEDULE									
DESCRIPTION	# REQUIRED	# PROVIDED							
STANDARD STALLS	-	152							
COMPACT STALLS**	-	38							
COVERED STALLS***	94	97							
EV CHARGING STALLS	9	10							
TOTAL ON-SITE PARKING	188*	190							

^{**} BASED ON 20% ALLOWED TO BE COMPACT STALLS
*** BASED ON 1/2 OF PARKING STALLS REQUIRED TO BE COVERED

BICYCLE SCHEDULE								
DESCRIPTION	# REQUIRED	# PROVIDED						
STANDARD STALLS	52	52						
COVERED STALLS	52	52						





WEST COAST HOME SOLUTIONS

WOODBURN, OREGON

SITE PLAN

03/02/23

LU 1.0

DATE:

Multifamily Housing (Low-Rise)

Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

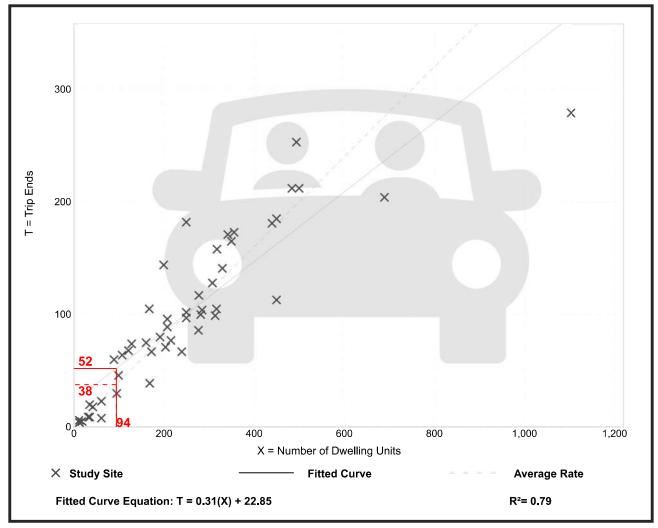
Number of Studies: 49 Avg. Num. of Dwelling Units: 249

Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.40	0.13 - 0.73	0.12

Data Plot and Equation



Trip Gen Manual, 11th Edition

Institute of Transportation Engineers

https://itetripgen.org/printGraph 1/1

Multifamily Housing (Low-Rise)

Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

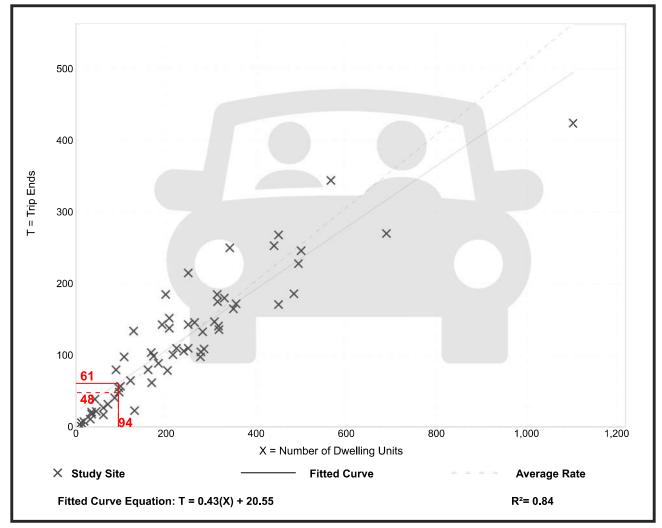
Number of Studies: 59 Avg. Num. of Dwelling Units: 241

Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.51	0.08 - 1.04	0.15

Data Plot and Equation



Trip Gen Manual, 11th Edition

Institute of Transportation Engineers

https://itetripgen.org/printGraph 1/1

Multifamily Housing (Low-Rise)

Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban

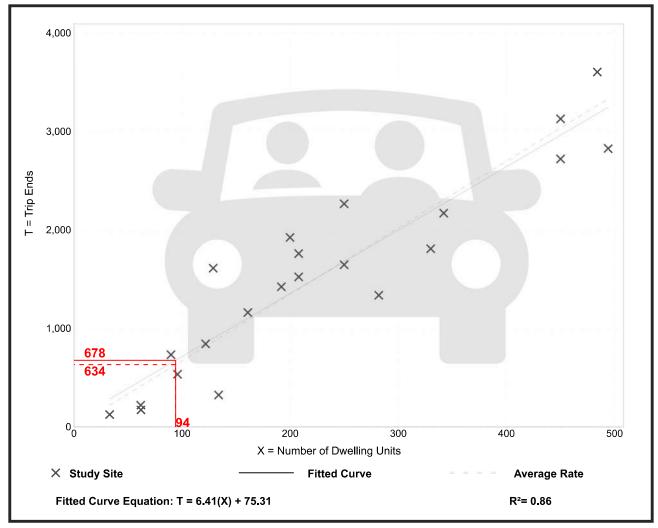
Number of Studies: 22 Avg. Num. of Dwelling Units: 229

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
6.74	2.46 - 12.50	1.79

Data Plot and Equation



Trip Gen Manual, 11th Edition

Institute of Transportation Engineers

https://itetripgen.org/printGraph 1/1

Appendix B – Volumes

Traffic Counts

In-Process Trips



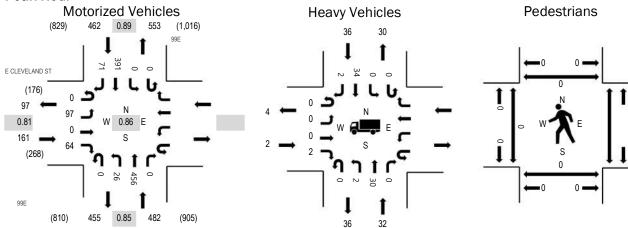


(303) 216-2439 www.alltrafficdata.net **Location:** 1 99E & E CLEVELAND ST AM

Date: Tuesday, January 31, 2023 **Peak Hour:** 07:00 AM - 08:00 AM

Peak 15-Minutes: 07:35 AM - 07:50 AM

Peak Hour



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.2%	0.81
WB		
NB	6.6%	0.85
SB	7.8%	0.89
All	6.3%	0.86

Traffic Counts - Motorized Vehicles

	I		ELAND S	T						99				99				
Interval		Eastb	ound				bound				bound				bound			Rolling
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour
7:00 AM	0	10	0	10					0	2	37	0	0	0	33	5	97	1,105
7:05 AM	0	9	0	5					0	1	29	0	0	0	34	2	80	1,097
7:10 AM	0	9	0	4					0	1	36	0	0	0	23	4	77	1,103
7:15 AM	0	5	0	4					0	4	45	0	0	0	29	10	97	1,092
7:20 AM	0	9	0	5					0	4	32	0	0	0	35	7	92	1,056
7:25 AM	0	7	0	5					0	2	40	0	0	0	26	1	81	1,042
7:30 AM	0	11	0	3					0	2	28	0	0	0	39	4	87	1,042
7:35 AM	0	8	0	6					0	2	32	0	0	0	34	4	86	1,030
7:40 AM	0	8	0	7					0	1	44	0	0	0	40	7	107	1,009
7:45 AM	0	11	0	10					0	1	60	0	0	0	34	11	127	976
7:50 AM	0	7	0	2					0	3	37	0	0	0	31	6	86	925
7:55 AM	0	3	0	3					0	3	36	0	0	0	33	10	88	903
8:00 AM	0	5	0	5					0	2	42	0	0	0	29	6	89	897
8:05 AM	0	6	0	6					0	3	36	0	0	0	30	5	86	
8:10 AM	0	4	0	1					0	0	29	0	0	0	28	4	66	
8:15 AM	0	5	0	1					0	1	32	0	0	0	20	2	61	
8:20 AM	0	6	0	3					0	3	37	0	0	0	27	2	78	
8:25 AM	0	5	0	4					0	2	43	0	0	0	22	5	81	
8:30 AM	0	6	0	4					0	1	31	0	0	0	29	4	75	
8:35 AM	0	4	0	2					0	1	27	0	0	0	22	9	65	
8:40 AM	0	8	0	4					0	2	26	0	0	0	29	5	74	
8:45 AM	0	10	0	2					0	2	27	0	0	0	32	3	76	
8:50 AM	0	1	0	3					0	5	36	0	0	0	13	6	64	
8:55 AM	0	5	0	7					0	3	32	0	0	0	32	3	82	
Count Total	0	162	0	106					0	51	854	0	0	0	704	125	2,002	_
Peak Hour	0	97	0	64					0	26	456	0	0	0	391	71	1,105	_

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval		Hea	avy Vehicles		-	Interval		Bicycle	es on Road	dway		Interval	Ped	destrians/E	Bicycles or	n Crosswa	lk
Start Time	EB	NB	WB	SB	Total	Start Time	EB	NB	WB	SB	Total	Start Time	EB	NB	WB	SB	Total
7:00 AM	0	2		3	5	7:00 AM	0	0		0	0	7:00 AM	0	0		0	0
7:05 AM	1	1		4	6	7:05 AM	0	0		0	0	7:05 AM	0	0		0	0
7:10 AM	0	5		2	7	7:10 AM	0	0		0	0	7:10 AM	0	0		0	0
7:15 AM	0	2		2	4	7:15 AM	0	0		0	0	7:15 AM	0	0		0	0
7:20 AM	0	4		1	5	7:20 AM	0	0		0	0	7:20 AM	0	0		0	0
7:25 AM	0	3		2	5	7:25 AM	0	0		0	0	7:25 AM	0	0		0	0
7:30 AM	0	1		4	5	7:30 AM	0	0		0	0	7:30 AM	0	0		0	0
7:35 AM	0	1		2	3	7:35 AM	0	0		0	0	7:35 AM	0	0		0	0
7:40 AM	0	7		5	12	7:40 AM	0	0		0	0	7:40 AM	0	0		0	0
7:45 AM	1	0		5	6	7:45 AM	0	0		0	0	7:45 AM	0	0		0	0
7:50 AM	0	4		0	4	7:50 AM	0	0		0	0	7:50 AM	0	0		0	0
7:55 AM	0	2		6	8	7:55 AM	0	0		0	0	7:55 AM	0	0		0	0
8:00 AM	0	5		5	10	8:00 AM	0	0		0	0	8:00 AM	0	0		0	0
8:05 AM	0	3		6	9	8:05 AM	0	0		0	0	8:05 AM	0	0		0	0
8:10 AM	0	1		1	2	8:10 AM	0	0		0	0	8:10 AM	0	0		0	0
8:15 AM	0	4		2	6	8:15 AM	0	0		0	0	8:15 AM	0	0		0	0
8:20 AM	0	5		2	7	8:20 AM	0	0		0	0	8:20 AM	0	0		0	0
8:25 AM	0	7		3	10	8:25 AM	0	0		0	0	8:25 AM	0	0		0	0
8:30 AM	0	5		5	10	8:30 AM	1	0		0	1	8:30 AM	0	0		0	0
8:35 AM	0	2		3	5	8:35 AM	0	0		0	0	8:35 AM	0	0		0	0
8:40 AM	0	5		6	11	8:40 AM	0	0		0	0	8:40 AM	0	0		0	0
8:45 AM	0	0		4	4	8:45 AM	0	0		0	0	8:45 AM	0	0		0	0
8:50 AM	1	6		0	7	8:50 AM	0	0		0	0	8:50 AM	0	0		0	0
8:55 AM	1	7		5	13	8:55 AM	0	0		0	0	8:55 AM	0	0		0	0
Count Total	4	82		78	164	Count Total	1	0		0	1	Count Total	0	0		0	0
Peak Hour	2	32		36	70	Peak Hour	0	0		0	0	Peak Hour	0	0		0	0

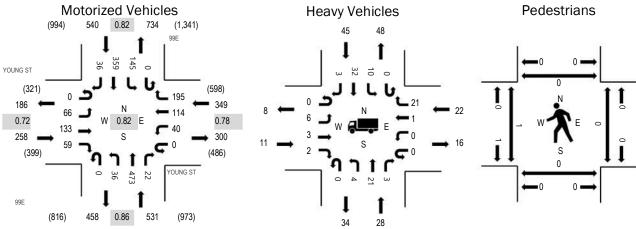


(303) 216-2439 www.alltrafficdata.net Location: 2 99E & YOUNG ST AM Date: Tuesday, January 31, 2023

Peak Hour: 07:00 AM - 08:00 AM

Peak 15-Minutes: 07:40 AM - 07:55 AM

Peak Hour



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	4.3%	0.72
WB	6.3%	0.78
NB	5.3%	0.86
SB	8.3%	0.82
All	6.3%	0.82

Traffic Counts - Motorized Vehicles

Interval			NG ST bound				NG ST bound			99 North	E bound			99 South		Rolling		
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour
7:00 AM	0	3	7	6	0	1	12	12	0	5	48	0	0	7	31	2	134	1,678
7:05 AM	0	2	11	7	0	3	12	18	0	1	31	1	0	10	27	2	125	1,666
7:10 AM	0	5	10	3	0	3	4	10	0	1	39	3	0	9	20	3	110	1,660
7:15 AM	0	5	12	2	0	4	2	14	0	4	41	1	0	12	29	3	129	1,643
7:20 AM	0	3	4	7	0	4	5	6	0	3	44	1	0	11	30	0	118	1,618
7:25 AM	0	5	9	4	0	5	12	21	0	3	39	2	0	13	24	5	142	1,599
7:30 AM	0	5	8	4	0	2	12	13	0	4	24	1	0	18	33	1	125	1,563
7:35 AM	0	7	11	10	0	5	8	11	0	1	36	4	0	13	25	1	132	1,549
7:40 AM	0	7	17	5	0	3	13	36	0	5	38	1	0	11	32	4	172	1,521
7:45 AM	0	9	20	4	0	3	12	19	0	5	60	3	0	18	33	5	191	1,456
7:50 AM	0	8	11	5	0	2	14	11	0	2	38	2	0	12	38	6	149	1,379
7:55 AM	0	7	13	2	0	5	8	24	0	2	35	3	0	11	37	4	151	1,322
8:00 AM	0	6	7	2	0	3	9	17	0	3	44	2	0	4	24	1	122	1,286
8:05 AM	0	2	7	6	0	2	8	10	0	1	35	0	0	13	32	3	119	
8:10 AM	0	3	3	2	0	4	10	15	0	1	28	1	0	6	20	0	93	
8:15 AM	0	0	3	1	0	1	2	18	0	3	35	3	0	13	19	6	104	
8:20 AM	0	5	6	1	0	1	5	9	0	4	31	0	0	9	28	0	99	
8:25 AM	0	2	5	3	0	0	4	15	0	4	41	1	0	5	24	2	106	
8:30 AM	0	9	7	1	0	5	3	7	0	1	34	1	0	13	27	3	111	
8:35 AM	0	4	6	3	0	1	5	15	0	2	28	0	0	10	27	3	104	
8:40 AM	0	4	5	3	0	2	5	15	0	1	27	0	0	9	33	3	107	
8:45 AM	0	3	4	0	0	1	6	12	0	0	39	1	0	12	32	4	114	
8:50 AM	0	11	6	1	0	3	8	9	0	1	30	2	0	3	14	4	92	
8:55 AM	0	4	5	1	0	0	8	11	0	7	29	2	0	12	31	5	115	
Count Total	0	119	197	83	0	63	187	348	0	64	874	35	0	254	670	70	2,964	_
Peak Hour	0	66	133	59	0	40	114	195	0	36	473	22	0	145	359	36	1,678	_,

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval		Hea	avy Vehicle	es		Interval		Bicycle	s on Road	dway		Interval	Pedestrians/Bicycles on Crosswalk				
Start Time	EB	NB	WB	SB	Total	Start Time	EB	NB	WB	SB	Total	Start Time	EB	NB	WB	SB	Total
7:00 AM	0	1	1	5	7	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	1	1	3	5	10	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	0	5	1	2	8	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	0	2	2	2	6	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	0	4	2	2	8	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	0	3	4	4	11	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	3	1	0	3	7	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	1	1	0	4	6	7:35 AM	0	0	0	0	0	7:35 AM	1	0	0	0	1
7:40 AM	0	4	5	6	15	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	2	1	0	0	3	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	4	3	2	6	15	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	0	2	2	6	10	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	0	5	3	7	15	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	1	2	1	6	10	8:05 AM	0	0	0	0	0	8:05 AM	1	0	0	0	1
8:10 AM	0	1	1	2	4	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	1	4	1	3	9	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	1	1
8:20 AM	2	4	2	4	12	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	0	8	3	5	16	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	1	4	3	7	15	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	0	2	1	3	6	8:35 AM	0	0	0	0	0	8:35 AM	0	0	1	0	1
8:40 AM	0	4	2	5	11	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	1	1
8:45 AM	1	1	4	7	13	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	0	3	2	0	5	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	2	6	0	7	15	8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0
Count Total	19	72	45	101	237	Count Total	0	0	0	0	0	Count Total	2	0	1	2	5
Peak Hour	11	28	22	45	106	Peak Hour	0	0	0	0	0	Peak Hour	1	0	0	0	1

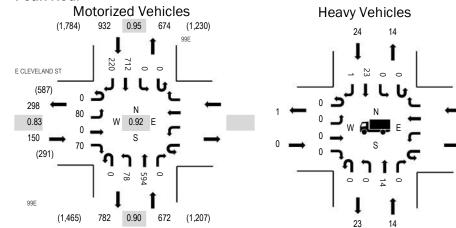


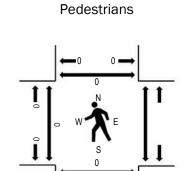
(303) 216-2439 www.alltrafficdata.net **Location:** 1 99E & E CLEVELAND ST PM

Date: Tuesday, January 31, 2023 **Peak Hour:** 04:05 PM - 05:05 PM

Peak 15-Minutes: 04:10 PM - 04:25 PM

Peak Hour





Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.83
WB		
NB	2.1%	0.90
SB	2.6%	0.95
All	2.2%	0.92

Traffic Counts - Motorized Vehicles

latanial		E CLEVELAND ST Eastbound Westbound									9E			9:		Dallina		
Interval Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	nbound Thru	Right	U-Turn	Left	nbound Thru	Right	Total	Rolling Hour
4:00 PM	0	6	0	4					0	3	44	0	0	0	52	21	130	1,753
4:05 PM	0	11	0	6					0	1	44	0	0	0	62	15	139	1,754
4:10 PM	0	7	0	6					0	9	50	0	0	0	73	9	154	1,751
4:15 PM	0	6	0	9					0	3	64	0	0	0	63	18	163	1,749
4:20 PM	0	4	0	7					0	6	51	0	0	0	63	29	160	1,707
4:25 PM	0	11	0	8					0	7	38	0	0	0	55	9	128	1,674
4:30 PM	0	4	0	9					0	9	51	0	0	0	59	22	154	1,670
4:35 PM	0	8	0	0					0	9	56	0	0	0	62	16	151	1,658
4:40 PM	0	6	0	12					0	12	52	0	0	0	39	20	141	1,632
4:45 PM	0	4	0	1					0	5	57	0	0	0	62	19	148	1,629
4:50 PM	0	6	0	4					0	6	48	0	0	0	57	23	144	1,598
4:55 PM	0	6	0	4					0	6	51	0	0	0	57	17	141	1,558
5:00 PM	0	7	0	4					0	5	32	0	0	0	60	23	131	1,529
5:05 PM	0	5	0	5					0	4	54	0	0	0	53	15	136	
5:10 PM	0	6	0	4					0	9	39	0	0	0	72	22	152	
5:15 PM	0	6	0	4					0	4	44	0	0	0	48	15	121	
5:20 PM	0	6	0	6					0	10	34	0	0	0	50	21	127	
5:25 PM	0	6	0	6					0	4	39	0	0	0	52	17	124	
5:30 PM	0	12	0	7					0	3	43	0	0	0	47	30	142	
5:35 PM	0	4	0	7					0	5	26	0	0	0	67	16	125	
5:40 PM	0	7	0	8					0	2	43	0	0	0	52	26	138	
5:45 PM	0	5	0	3					0	7	42	0	0	0	46	14	117	
5:50 PM	0	9	0	2					0	4	33	0	0	0	43	13	104	
5:55 PM	0	8	0	5					0	4	35	0	0	0	40	20	112	
Count Total	0	160	0	131					0	137	1,070	0	0	0	1,334	450	3,282	_
Peak Hour	0	80	0	70					0	78	594	0	0	0	712	220	1,754	_

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval		Hea	avy Vehicles		Interval		Bicycle	es on Road	dway		Interval	Pedestrians/Bicycles on Crosswalk					
Start Time	EB	NB	WB SB	Total	Start Time	EB	NB	WB	SB	Total	Start Time	EB	NB	WB	SB	Total	
4:00 PM	1	3		5	9 4:00 PM	0	0		0	0	4:00 PM	0	0		0	0	
4:05 PM	0	3		3	6 4:05 PM	0	0		0	0	4:05 PM	0	0		0	0	
4:10 PM	0	3		1	4 4:10 PM	0	0		0	0	4:10 PM	0	0		0	0	
4:15 PM	0	1		3	4 4:15 PM	0	0		0	0	4:15 PM	0	0		0	0	
4:20 PM	0	1		0	1 4:20 PM	0	0		0	0	4:20 PM	0	0		0	0	
4:25 PM	0	2		1	3 4:25 PM	0	0		0	0	4:25 PM	0	0		0	0	
4:30 PM	0	1		3	4 4:30 PM	0	0		0	0	4:30 PM	0	0		0	0	
4:35 PM	0	1		2	3 4:35 PM	0	0		0	0	4:35 PM	0	0		0	0	
4:40 PM	0	1		1	2 4:40 PM	0	0		0	0	4:40 PM	0	0		0	0	
4:45 PM	0	0		4	4 4:45 PM	0	0		0	0	4:45 PM	0	0		0	0	
4:50 PM	0	0		0	0 4:50 PM	0	0		0	0	4:50 PM	0	0		0	0	
4:55 PM	0	0		4	4 4:55 PM	0	0		0	0	4:55 PM	0	0		0	0	
5:00 PM	0	1		2	3 5:00 PM	0	0		0	0	5:00 PM	0	0		0	0	
5:05 PM	0	1		1	2 5:05 PM	0	0		0	0	5:05 PM	0	0		0	0	
5:10 PM	0	0		2	2 5:10 PM	0	0		0	0	5:10 PM	0	0		0	0	
5:15 PM	0	1		0	1 5:15 PM	0	0		0	0	5:15 PM	0	0		0	0	
5:20 PM	0	0		2	2 5:20 PM	0	0		0	0	5:20 PM	0	0		0	0	
5:25 PM	0	2		1	3 5:25 PM	0	0		0	0	5:25 PM	0	0		0	0	
5:30 PM	0	1		0	1 5:30 PM	0	0		0	0	5:30 PM	0	0		0	0	
5:35 PM	0	1		3	4 5:35 PM	0	0		0	0	5:35 PM	0	0		0	0	
5:40 PM	0	0		3	3 5:40 PM	0	0		0	0	5:40 PM	1	0		0	1	
5:45 PM	1	4		3	8 5:45 PM	0	0		0	0	5:45 PM	0	0		0	0	
5:50 PM	0	2		0	2 5:50 PM	0	0		0	0	5:50 PM	0	0		0	0	
5:55 PM	1	3		1	5 5:55 PM	0	0		0	0	5:55 PM	0	0		0	0	
Count Total	3	32	-	15 8	0 Count Total	0	0		0	0	Count Total	1	0		0	1	
Peak Hour	0	14		24 3	8 Peak Hour	0	0		0	0	Peak Hour	0	0		0	0	

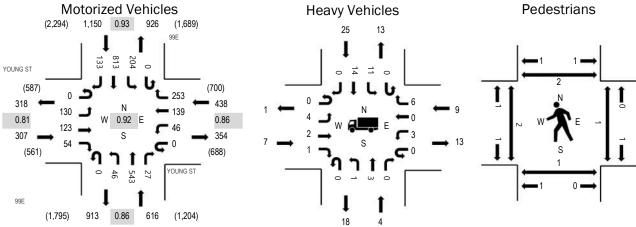


(303) 216-2439 www.alltrafficdata.net **Location:** 2 99E & YOUNG ST PM **Date:** Tuesday, January 31, 2023

Peak Hour: 04:30 PM - 05:30 PM

Peak 15-Minutes: 04:40 PM - 04:55 PM

Peak Hour



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	2.3%	0.81
WB	2.1%	0.86
NB	0.6%	0.86
SB	2.2%	0.93
All	1.8%	0.92

Traffic Counts - Motorized Vehicles

Interval			NG ST oound				NG ST bound				9E ibound				9E nbound			Rollii
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hou
4:00 PM	0	9	10	4	0	3	9	16	0	2	41	1	0	19	72	4	190	2,47
4:05 PM	0	8	8	4	0	4	7	22	0	3	40	0	0	18	71	7	192	2,4
4:10 PM	0	11	16	6	0	5	7	14	0	9	56	1	0	15	84	7	231	2,4
4:15 PM	0	3	10	3	0	4	9	13	0	6	69	0	0	13	74	9	213	2,5
4:20 PM	0	10	3	2	0	3	5	17	0	5	48	2	0	22	76	8	201	2,4
4:25 PM	0	9	8	4	0	3	5	11	0	5	39	2	0	13	52	11	162	2,4
4:30 PM	0	8	13	7	0	7	12	15	0	1	44	2	0	21	68	9	207	2,5
4:35 PM	0	11	3	4	0	4	7	29	0	7	45	4	0	11	64	10	199	2,4
4:40 PM	0	7	11	5	0	1	13	33	0	6	49	5	0	16	62	14	222	2,4
4:45 PM	0	11	12	3	0	3	13	25	0	3	63	2	0	16	86	19	256	2,4
4:50 PM	0	5	4	2	0	3	12	25	0	5	49	3	0	17	67	12	204	2,3
4:55 PM	0	11	8	7	0	5	10	20	0	5	50	1	0	12	58	12	199	2,3
5:00 PM	0	11	9	5	0	7	11	23	0	3	34	1	0	16	66	12	198	2,2
5:05 PM	0	18	11	5	0	8	10	20	0	5	42	1	0	14	50	8	192	
5:10 PM	0	18	16	5	0	6	17	21	0	2	43	3	0	23	84	11	249	
5:15 PM	0	7	11	5	0	0	15	17	0	4	36	4	0	23	64	8	194	
5:20 PM	0	9	12	4	0	0	5	7	0	3	44	1	0	19	76	9	189	
5:25 PM	0	14	13	2	0	2	14	18	0	2	44	0	0	16	68	9	202	
5:30 PM	0	11	8	2	0	0	6	11	0	2	50	0	0	22	58	10	180	
5:35 PM	0	13	9	12	0	3	12	12	0	7	20	4	0	26	71	18	207	
5:40 PM	0	9	8	4	0	1	4	7	0	3	40	4	0	19	64	18	181	
5:45 PM	0	8	6	6	0	2	5	6	0	1	38	1	0	12	52	13	150	
5:50 PM	0	10	6	2	0	2	12	9	0	5	35	3	0	22	61	11	178	
5:55 PM	0	6	4	2	0	2	7	4	0	8	38	0	0	19	64	9	163	
Count Total	0	237	219	105	0	78	227	395	0	102	1,057	45	0	424	1,612	258	4,759	
Peak Hour	0	130	123	54	0	46	139	253	0	46	543	27	0	204	813	133	2,511	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval		Hea	avy Vehicle	es		Interval		Bicycle	es on Road	dway		Interval	Ped	destrians/E	Bicycles on	Crosswa	lk
Start Time	EB	NB	WB	SB	Total	Start Time	EB	NB	WB	SB	Total	Start Time	EB	NB	WB	SB	Total
4:00 PM	0	2	2	8	12	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	3	1	2	3	9	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	4	3	2	9	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	0	2	0	2	4	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	1	1	0	2	4:20 PM	0	0	0	0	0	4:20 PM	1	0	0	0	1
4:25 PM	1	2	0	3	6	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	1	1	1	3	6	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	1	1
4:35 PM	0	1	1	1	3	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	0	0	1	2	3	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	1	1
4:45 PM	1	0	1	3	5	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	0	0	0	2	2	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	1	0	0	3	4	4:55 PM	0	0	1	0	1	4:55 PM	0	0	0	0	0
5:00 PM	1	1	1	4	7	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	1	1
5:05 PM	1	0	1	2	4	5:05 PM	0	0	0	0	0	5:05 PM	0	1	1	0	2
5:10 PM	1	0	1	2	4	5:10 PM	0	0	0	0	0	5:10 PM	2	0	0	1	3
5:15 PM	0	0	0	0	0	5:15 PM	0	0	1	0	1	5:15 PM	0	0	0	0	0
5:20 PM	0	0	0	1	1	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	1	1	2	2	6	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	1	1	0	1	3	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	1	0	4	5	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	1	1
5:40 PM	1	0	0	2	3	5:40 PM	0	0	0	0	0	5:40 PM	1	0	0	0	1
5:45 PM	1	2	0	4	7	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	2	2	0	1	5	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	1	2	0	3	6	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	17	24	17	58	116	Count Total	0	0	2	0	2	Count Total	4	1	1	5	11
Peak Hour	7	4	9	25	45	Peak Hour	0	0	2	0	2	Peak Hour	2	1	1	4	8

Project #26306
September 2021
Project #26306
Project #26306

Trip Generation Estimate

Trip generation estimates are typically based on data derived from *Trip Generation*, 10th Edition, published by the Institute of Transportation Engineers (ITE). Project Basie will be used for storage and consolidation of products prior to their larger regional and local distribution and would be considered a "sortable" facility. The ITE land use that most closely matches this function is "High-Cube Fulfillment Center Warehouse" (Land Use 155). Table 9 provides the estimated trip generation using ITE data.

Table 9 - Estimated Trip Generation (ITE) - High Cube Fulfillment Center (Sortable)

Land Use	ITE	Size	Weekday	Weekda	y AM Peak H	our Trips	Weekda	y PM Peak H	our Trips
Land Ose	Code	Size	Trips	Total	In	Out	Total	In	Out
High-Cube Fulfillment Center Warehouse	155	3,849,000 sq. ft.	23,640	1,705	853	852	3,959	1,980	1,979

In reviewing Table 9, it is important to note that these ITE rates are based on one or two study sites (depending on the analysis period) with a facility square footage that is significantly smaller than the proposed 3.849 million square foot Project Basie facility. In consultation with the Project Basie tenant, it was determined that the application of the Land Use 155 rates would significantly overestimate the daily and peak hour trip profile of the site.

Instead, the Project Basie tenant supplied a detailed employee and truck arrival/departure profile that was developed specifically for the proposed site, taking into consideration the size of the building, its geographic location and relation to other in-network distribution facilities, the finite processing capabilities of the facility, internal automation technology, anticipated employee levels, and site-specific work schedules. These variables are based on operational experience at other facilities with similar functions nationwide. A detailed summary of this profile is included in *Appendix G* along with additional trip generation information requested by City of Woodburn staff. As shown, the proposed site is anticipated to be a 24-hour facility with multiple shift change patterns. In particular, there are two key shift change periods that are anticipated to occur near the typical weekday AM and PM peak periods:

- 6:30-7:30 AM which accounts for the peak arrival period for the dayshift.
- 5:30-6:30 PM which accounts for peak dayshift departure period and the peak nightshift arrival period.

These shift change periods represent what ITE defines as "the Peak Hour of the Generator". The resulting trip profile is summarized in Table 10 below.

Kittelson & Associates, Inc. Portland, Oregon

Project #: 26306 September 2021 Project #: 26306

Table 10 - Project Basie - Peak Hour of the Generator Trip Generation Estimate

Land Use	Size	Trip Type	Weekday Daily		ay AM Peak I or Trips (6:30-			lay PM Peak I or Trips (5:30-	
Edila 030	3.20	1116 1760	Trips	Total	ln	Out	Total	In	Out
	937	Employees	3,558	676	648	28	1,156	573	583
Project Basie	employees	Trucks	612	26	13	13	20	10	10
	per shift	Total	4,170	702	661	41	1,176	583	593

Source: Tenet supplied employee and freight arrival/departure schedule. See Appendix G.

Note: The trip generation profile in Table 10 is consistent with the proposed 3.849 million square foot facility. The square footage identified in the 4/16/21 Scoping Memo was incorrectly stated.

In addition to the Peak Hour of the Generator, the traffic counts along the OR 219 study corridor revealed that Woodburn's street system has different peak time periods than reflected in Table 10. In particular, the weekday AM peak hour in Woodburn has been found to occur from 7:00-8:00 AM while the weekday PM system peak hour has been found to occur from 4:30-5:30 PM. The resulting trip profile for the proposed building during these times is shown in Table 11.

Table 11 - Project Basie - Peak Hour of the System Trip Generation Estimate

Land Use	Size	Trip Type	Weekday Daily		/ AM Peak Ho Trips (7:00-8			y PM Peak Ho Trips (4:30-5	
Edila 03C	3120	ттр турс	Trips	Total	ln	Out	Total	In	Out
	937	Employees	3,558	427	404	23	154	93	61
Project Basie	employees	Trucks	612	30	15	15	22	11	11
	per shift	Total	4,170	457	419	38	176	104	72

Source: Tenet supplied employee and freight arrival/departure schedule. See Appendix G.

Note: The trip generation profile in Table 11 is consistent with the proposed 3.849 million square foot facility. The square footage identified in the 4/16/21 Scoping Memo was incorrectly stated.

Site Trip Distribution/Trip Assignment

A trip distribution pattern was identified for the proposed fulfillment center, taking into consideration the number of anticipated jobs that will be provided by the development, the site's location with respect to both the city and other population centers in the Willamette Valley. In addition to these factors, US Census OnTheMap (https://onthemap.ces.census.gov/) data was consulted which identifies statistics about the origins of workers who are employed in the Woodburn area (see *Appendix H* for a more detailed summary of the census employee origin data for Woodburn). Using a combination of these factors and based on preliminary scoping feedback from City, County, and ODOT staff, a refined trip distribution pattern was developed for the site. The trip distribution pattern and resulting assignment of weekday AM and PM peak period site-generated trips to the study intersections and site driveways is illustrated in Figures 13-16.

Kittelson & Associates, Inc. Portland, Oregon

3 OR 219 / Butteville Rd
4 OR 219 / Willow Ave
5 OR 219 / Woodland Ave
6 OR 219 / I-5 SB Ramps
7 OR 219 / I-5 NB

Old Butteville Rd/ North Site Access/ Butteville Rd OR 214/Settlemier Ave/
Boones Ferry Rd

OR 99E

OR 214/OR 211/
OR 99E

North Middle Site Access/
Butteville Rd

South Middle Site Access/
Butteville Rd

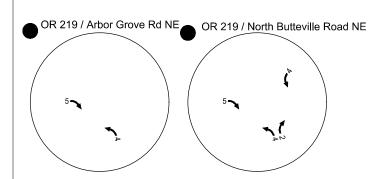


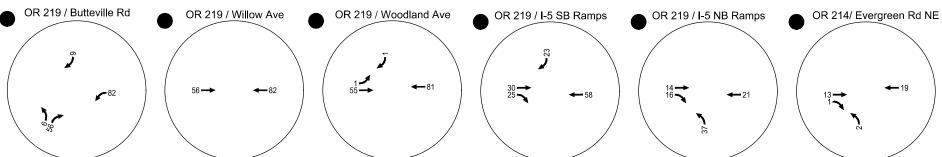
LeBrun Rd/ South Site Access/
Butteville Rd

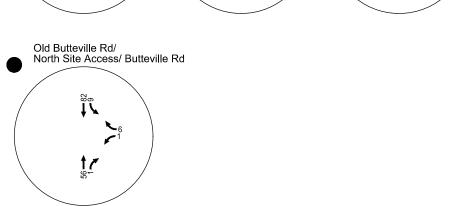
Parr Rd/Butteville Rd

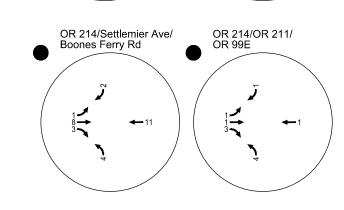
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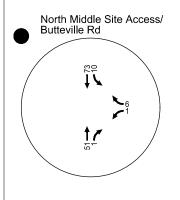
Site-Generated Trips System Peak Hour (7:00 AM to 8:00 AM) Woodburn, OR

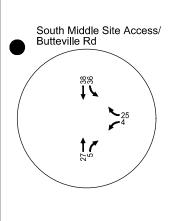


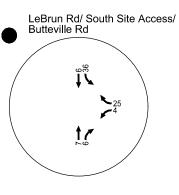


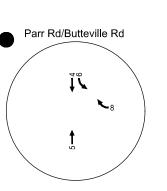


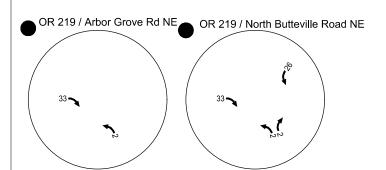


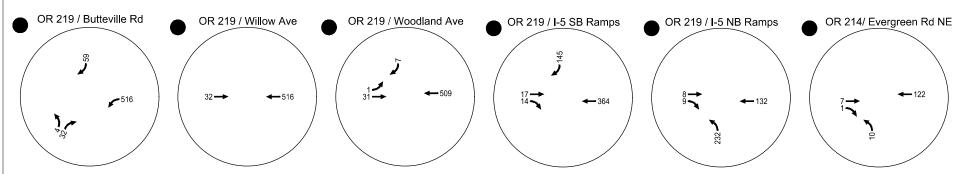


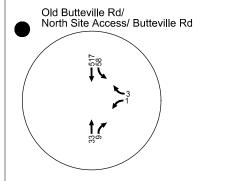


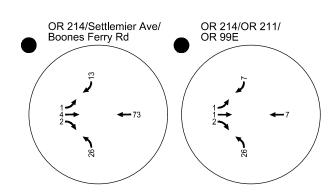


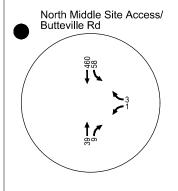


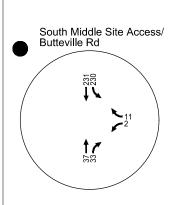


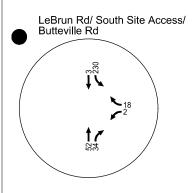


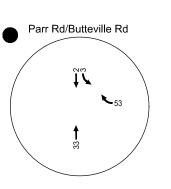




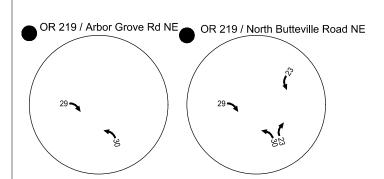


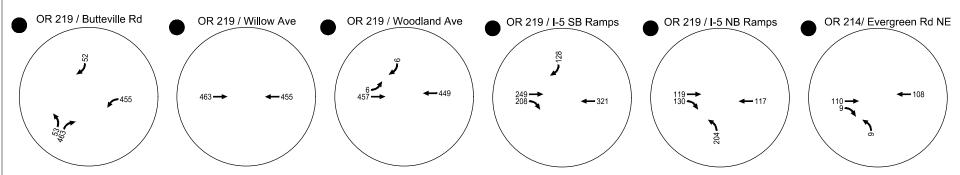


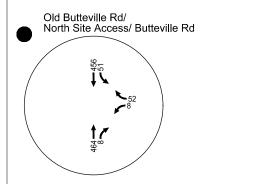


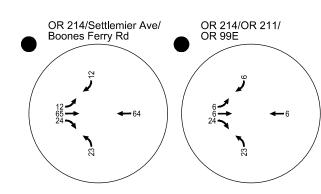


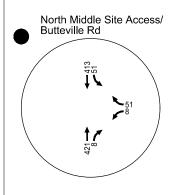
Site-Generated Trips
Peak Hour of Generator (6:30 AM to 7:30 AM)
Woodburn, OR

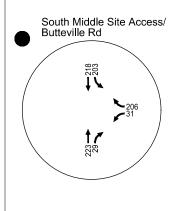


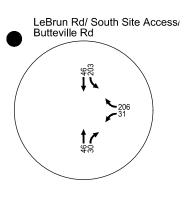


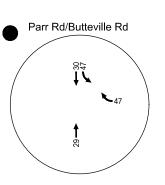












Site-Generated Trips
Peak Hour of Generator (5:30 PM to 6:30 PM)
Woodburn, OR

CHAPTER 4: PROJECT IMPACTS

This chapter reviews impacts the proposed development may have on the study area transportation system. The focus of the impact analysis is on the following study intersections:

- 1 N Pacific Hwy (99E)/ Molalla Rd (OR 211)
- 2 Molalla Rd (OR 211)/ Safeway Driveway
- 3 Molalla Rd (OR 211)/ June Way/ Woodburn Place Apartments Phase 2 Site Access
- 4 Molalla Rd (OR 211)/ Woodburn Place Apartments Phase 1 Site Access
- 5 Molalla Rd (OR 211)/ Cooley Road

Trip Generation

Trip generation is used to estimate the number of vehicle trips added to the roadway network by a development during a specified period. In this case, the AM and PM peak hour periods are studied. Trip generation estimates are established using data and methodology provided by the Institute of Transportation Engineers (ITE).³

Trip generation values for the proposed development are estimated using the ITE Trip Generation Manual, 11th Edition, and the Land Use Code 221: Multifamily Housing (Mid-Rise) Not Close to Rail Transit. Trip generation values are provided in **Table 8**.

	Dwelling	Time	Trip Generation	P	eak Hour T	rips
Land Use (ITE Codes)	Units	Period	Rate	In	Out	Total
Multi-Family Mid-Rise Not Close	258	AM				
to Rail Transit (LUC 221)	238	Peak	Equation	23	79	102
		то	TAL AM PEAK HOUR	23	79	102
Multi-Family Mid-Rise Not Close	258	PM				
to Rail Transit (LUC 221)	256	Peak	Equation	62	39	101
		то	TAL PM PEAK HOUR	62	39	101

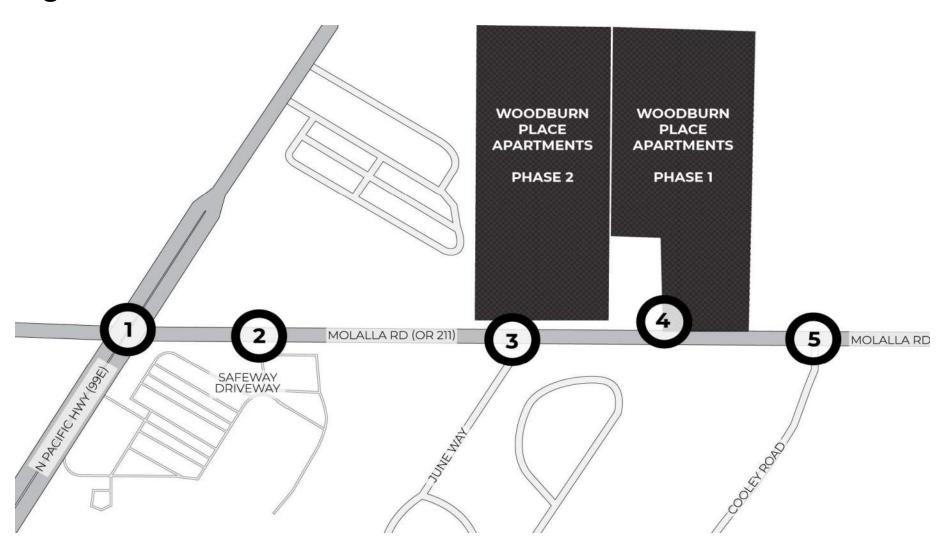
Table 9: Trip Generation Summary

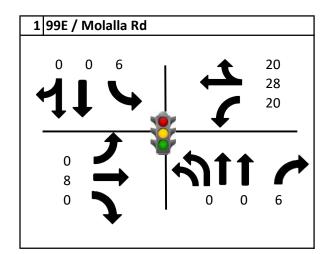
Trip Distribution

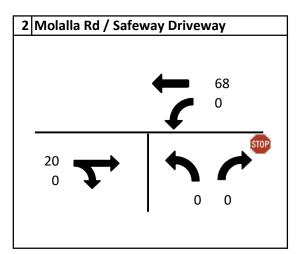
Trip distribution provides an estimation of where trips from the development originate and end on the study area network. This is represented as percentages where large portions of the trips generated enter and exit the project study area. The trip distribution percentages are included in **Appendix D**. **Figures 6 and 7** show the trips generated by the study distributed on the network.

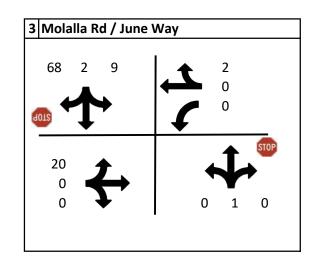
 $^{^3}$ *Trip Generation, 11th Edition,* Institute of Transportation Engineers, 2021. Enloe Consulting, LLC

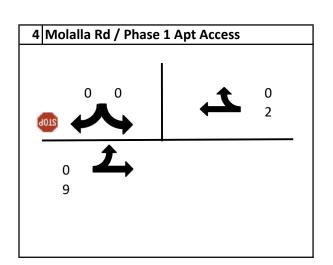
Figure 6: Site Generated Volumes AM Peak Hour











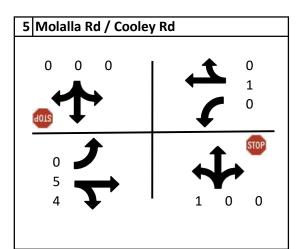
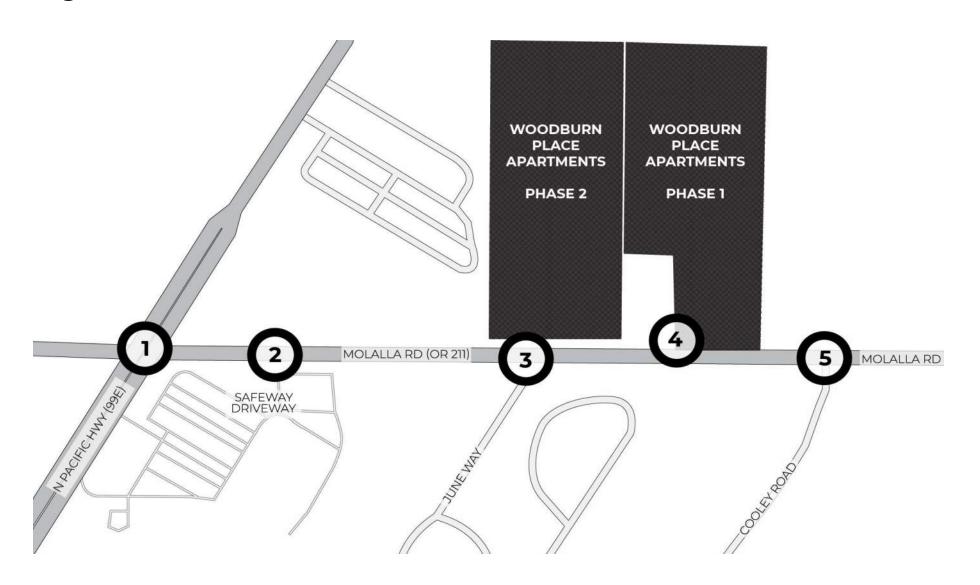
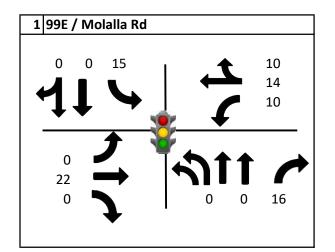
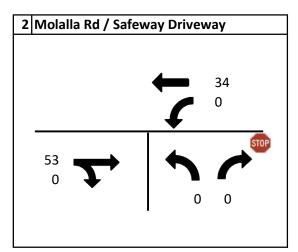
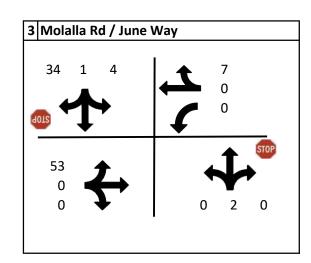


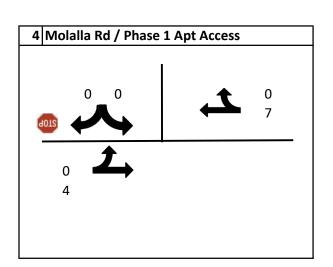
Figure 7: Site Generated Volumes PM Peak Hour

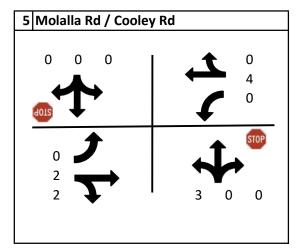


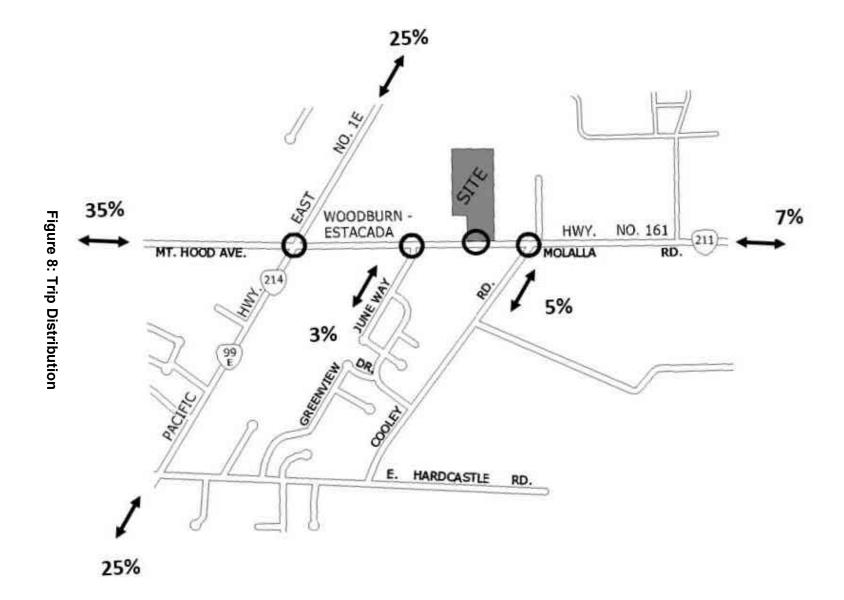


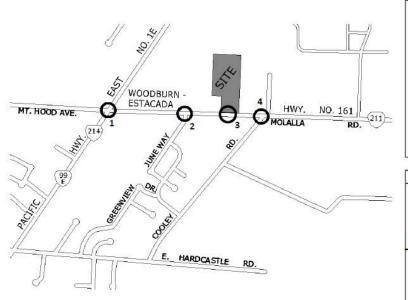


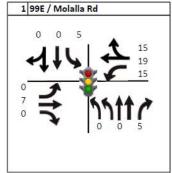


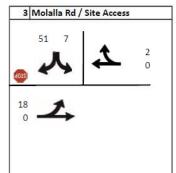


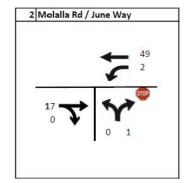


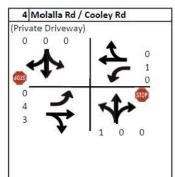


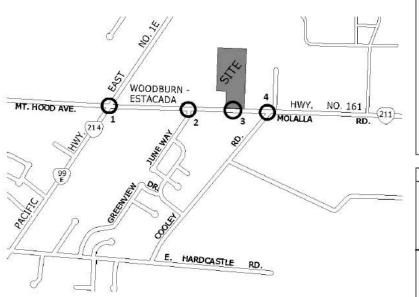


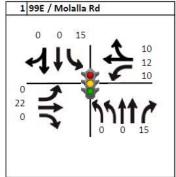


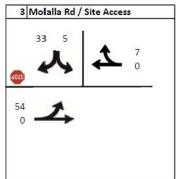


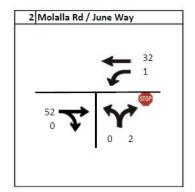


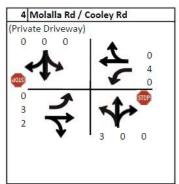














May 26, 2022

Woodburn Realestate, LLC Attention: Baset Shagrun 3000 Market Street, Suite 510 Salem, Oregon 97301

Re: Woodburn Apartments – Woodburn, Oregon Traffic Impact Analysis

Woodburn File Numbers DR 22-05 and VAR 22-06 C&A Project Number 20220501.00

Dear Mr. Shagrun,

This Traffic Impact Analysis (TIA) letter supports the proposed Woodburn Apartments development land use actions and addresses the City of Woodburn and the Oregon Department of Transportation (ODOT) Traffic Impact Study requirements. The following items are specifically addressed:

- 1. Property Description and Proposed Land Use Actions
- 2. Study Parameters
- 3. Development Trip Generation
- 4. Development Access
- 5. Summary

1. PROPERTY DESCRIPTION AND PROPOSED LAND USE ACTIONS

The subject property is located at 119 N Pacific Highway in Woodburn, Oregon. It is described as tax lot 7500 on the Marion County Assessor's Map 051W17BC.

The property size is 1.37 acres (59,740 square feet) and is undeveloped. The property is currently zoned Mixed-Use Village (MUV). The proposed 35-unit residential apartment development is an allowed use in the MUV zone designation. The property has direct access to N Pacific Highway (OR 99E).

Woodburn Apartments – Woodburn, Oregon C&A Project Number 20220501.00 May 26, 2022 Page 2

2. STUDY PARAMETERS

Transportation materials contained in the April 14, 2022 letter from the City of Woodburn to Jim Toporek (Studio 3 Architecture) regarding the status of the Woodburn Apartments project state,

"D. TIA: Per [Woodburn Development Ordinance (WDO)] 3.04.05, a traffic impact analysis (TIA) is required if the proposal generates more than 100 peak hour trips or 1,000 daily trips (ODOT requires a TIA if the proposal generates 50 peak hour trips or 300 daily trips). Applicant must either submit a traffic memo calculating and describing why a TIA is not required for this project or if one is, submit a TIA. Consult with the City Engineer and ODOT regarding TIA standards and requirements."

Based on materials presented in the *Development Trip Generation* section of this analysis, only a traffic memo is necessary to address City requirements. Subsequent email correspondence with the Oregon Department of Transportation (ODOT) staff states,

"Based on trip generation, a memo will be fine for the site. The one concern that would have been good to see in a TIA is left turn storage in the TWLTL for vehicles waiting to turn into the site. The highway approach is situated in the best location (farthest away from the railroad crossing). But left-turn storage will start where the TWLTL begins to taper. It would be helpful for our decision if the memo had a small mention of queueing and what that is expected to look like."

3. DEVELOPMENT TRIP GENERATION

Trip generation for the proposed 35-unit residential apartment development is estimated using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition, and practices from the ITE *Trip Generation Handbook*, 3rd Edition and is presented in the following table.

	TABLE 1	– DEVELO	PMENT	TRIP GENI	ERATION				
Land Use	ITE	Size	Daily	AM	Peak Ho	ur	PM	Peak H	our
Land Ose	Code	Size	Dally	Enter	Exit	Total	Enter	Exit	Total
Multifamily Housing (Low-Rise)	220	35 DU	300 ¹	8	26	34 ¹	22	14	36 ¹

¹ Trip generation estimated using the *Fitted Curve* per recommended practice in the ITE *Trip Generation Handbook*, 3rd Edition.

As identified in the table above, 35 residential dwellings generate 300 daily, 34 AM, and 36 PM peak hour trips. Considering Woodburn TIA requirements, the development generates fewer than 100 peak hour or 1,000 daily trips. Therefore, City analysis thresholds are not met. Subsequent discussions with ODOT staff further indicate that only a memorandum documenting trip generation is necessary.

Woodburn Apartments – Woodburn, Oregon C&A Project Number 20220501.00 May 26, 2022 Page 3

4. DEVELOPMENT ACCESS

Based on the attached site plan, the proposed development access to N Pacific Highway (OR 99E) is located at the northeast property corner, as far north from the OR 99E/ Silverton Avenue intersection and the railroad crossing as possible.

OR 99E is five lanes wide at the proposed access location, including a center two-way left-turn lane (TWLTL), and tapers to four lanes without a TWLTL to the south. As a result, there is queue storage for approximately two northbound vehicles turning left into the proposed development. Given there are estimated to be 8 AM and 22 PM peak hour vehicle trips entering the development from both the north and southbound directions, it is anticipated that the northbound TWLTL queue storage area will safely accommodate development queues.

Overall, based on the proposed site plan, the development will be designed and constructed to Woodburn Development Ordinance standards.

5. SUMMARY

The following conclusions are based on the materials contained in this analysis.

- 1. The subject property is located at 119 N Pacific Highway in Woodburn, Oregon. It is described as tax lot 7500 on the Marion County Assessor's Map 051W17BC.
- 2. The property size is 1.37 acres (59,740 square feet) and is undeveloped. The property is currently zoned Mixed-Use Village (MUV) and the proposed development is an allowed use.
- **3.** The proposed 35-unit residential apartment development generates 300 daily, 34 AM, and 36 PM peak hour trips. Based on agency requirements, transportation impact analysis thresholds are not met and only a memorandum documenting trip generation is necessary.
- 4. The proposed development access to N Pacific Highway (OR 99E) is located at the northeast property corner, as far north from the OR 99E/ Silverton Avenue intersection and the railroad crossing as possible.
- 5. There is queue storage for approximately two northbound vehicles turning left into the proposed development. Given there are estimated to be 8 AM and 22 PM peak hour vehicle trips entering the development from both the north and southbound directions, it is anticipated that the northbound TWLTL queue storage area will safely accommodate development queues.

6. Based on the proposed site plan the site will be designed and constructed to Woodburn Development Ordinance standards.

Sincerely,

Christopher M. Clemow, PE, PTOE

Transportation Engineer

Attachments: Site Plan

Appendix C - Safety

Crash History Data

Left-Turn Lane Warrant Analysis

Preliminary Signal Warrant Analysis



1 - 2

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

of 2 Crash records shown.

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY YOUNG ST at BRYAN ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

S D M CLASS INT-TYPE SPCL USE SER# P R J S W DATE CITY STREET DIST FIRST STREET RD CHAR WTHR TRLR QTY MOVE A S INVEST E A U I C O DAY (MEDIAN) INT-REL OFFRD CRASH FROM SECOND STREET DIRECT COLL OWNER FROM PRTC G E LICNS PED RD DPT E L G N H R TIME LEGS TRAF-RNDBT SURF INJ UNLOC? D C S V L K LAT LONG LRS LOCTN TO ERROR ACT EVENT CAUSE (#LANES) CONTL DRVWY LIGHT SVRTY V# TYPE P# TYPE SVRTY E X RES LOC 01725 N N N # 04/23/2016 BRYAN ST INTER 3-LEG UNK S-1STOP 01 NONE STRGHT 013,004 27,07 r UN 000 00 CITY YOUNG ST STOP SIGN N UNK REAR PRVTE UN-UN SA 0 06 27,07 0 N 01 DRVR NONE 25 M OR-Y 016,043,026 038 9P DLIT PSNGR CAR INJ N 45 8 15.52 -122 50 OR<25 43.55 02 NONE 0 STOP 0 PRVTE UN-UN 011 013 00 PSNGR CAR 01 DRVR INJC 30 M 000 022 00 OR-Y OR>25 03 NONE 0 STOP 0 PRVTE UN-UN 011 004 00 PSNGR CAR 01 DRVR NONE 00 UNK 000 000 00 UNK N N N # N N 10/29/2018 BRYAN ST INTER N N 04128 19 3-LEG RAIN BIKE 01 NONE TURN-R 19 0 0 r CITY MO YOUNG ST NE STOP SIGN N WET TURN PRVTE NE-NW 000 00 06 DARK PSNGR CAR 01 DRVR NONE 54 M OR-Y 027 000 00 бΑ INJ 45 8 15.52 -122 50 OR<25 43.55 01 BIKE INJB 29 F 000 19 STRGHT I XWLK 000 NW SE

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and YOUNG ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

1 - 2 of 36 Crash records shown.

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SER# P R J S	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE								
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URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and YOUNG ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

of 36 Crash records shown.

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SER# P R J		CLASS	CITY STREET		INT-TYPE					SPCL USE									
INVEST E A U I	C O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A	S				
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URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and YOUNG ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

5 - 7 of 36 Crash records shown.

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URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and YOUNG ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

of 36 Crash records shown.

	S D M																			
SER#	P RJS	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
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URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and YOUNG ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

Page: 9

10 - 11 of 36 Crash records shown.

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	E r r o r																				
											PRVTE PSNGR CAR	NW-SE	01 DRVR	INJO	C 4	1 M			000	000	00 00
02020	V N N # N	N N 05/23/2017	14	PACIFIC HY 99E	INTER	CROSS	N	N	CLR	ANGI -OTH	01 NONE 0	STRGHT					OR>2	5		013	30,04
02020	E r r o r	N IN 03/23/2017	11	TACITIC III 35E	INIBA	CRODS	N	14	CIIC	ANGE OTH	OT NONE O	BIRGIII								013	30,01
CITY		TU		YOUNG ST	CN		TRF SIGNAL	N	DRY	ANGL	PRVTE	SE-NW								000	00
N N		2P 45 8 13.29		008100100s00	01	0		N	DAY	INJ	PSNGR CAR		01 DRVR	INJO	C 70	б F	OR-Y OR<2		050,020	000	30,04
	#		38.07								02 NONE 0	STRGHT									
	E r																				
	r																				
	o r																				
											PRVTE PSNGR CAR	NE-SW	01 DRVR	NONE	E 20	ОМ	N-VA	Ĺ	000	000 013 022	00 00
																	OR<2	5			
	# E										02 NONE 0	STRGHT									
	r r																				
	0																				
	r										PRVTE	NE-SW								000 013	00
											PSNGR CAR		02 PSNG	INJO	C 20	M C			000	000	00
	#										03 NONE 1	STRGHT									
	E r																				
	r																				
	o r																				
											PRVTE	SE-NW	01 DDIM	11011	. 4	2 14	OD 11		000	000	00
											SEMI TOW		01 DRVR	NONE	E 48	3 M	OR-Y		000	000	00
04207	N N N # 1	N N 10/07/2017	14	PACIFIC HY 99E	INTER	CROSS	N	N	CLR	ANGL-OTH	01 NONE 0	STRGHT									02
	E r r																				
CITY	r	SA		YOUNG ST	CN		TRF SIGNAL	N	DRY	TURN	PRVTE	NE-SW								000	00
N		1A			03	0		N	DLIT	INJ	PSNGR CAR		01 DRVR	INJO	C 5	4 M	OR-Y		000	000	00
N		45 8 13.29	-122 50 38.07	008100100S00													OR>2				

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and YOUNG ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

12 - 14 of 36 Crash records shown.

	G . D W																		
	S D M P R J S W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
	E A U I C O DAY	DIST	FIRST STREET	RD CHAR		INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			А	S				
	E L G N H R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT		COLL	OWNER	FROM	PRTC	INJ		E LICNS	PED			
UNLOC?	D C S V L K LAT	LONG	LRS	LOCTN	(#LANES)				SVRTY	V# TYPE	TO	P# TYPE				LOC	ERROR	ACT EVENT	CAUSE
	# E									02 NONE 0	TURN-R								
	r																		
	r o																		
	r									DDIMI	NIII OU							0.00	0.0
										PRVTE PSNGR CAR	NW-SW	01 DRVR	NONE	41 F	OR-Y		028	000 000	00 02
															OR>25				
04842	N N N # N N 11/10/2017	14	PACIFIC HY 99E	INTER	CROSS	N	N	RAIN	0-1 L-TU	RN 01 NONE 0	TURN-L								02
	E r																		
	r o																		
	r																		
CITY	FR		YOUNG ST	CN		TRF SIGNAL	N	WET	TURN	PRVTE	NW-NE							000	00
N	4P			02	0		N	DAY	INJ	PSNGR CAR		01 DRVR	INJC	30 M			028,004	000	02
N	45 8 13.29	-122 50 38.07	008100100S00												OR<25				
	#									02 NONE 0	STRGHT								
	E r																		
	r																		
	o r																		
										PRVTE	SE-NW	01 DDIM	TNIC	20 M	OD W		000	000	00 00
										PSNGR CAR		01 DRVR	INJC	28 M	OR-1 OR<25		000	000	00
05582	N N N # N N 12/24/2017	14	PACIFIC HY 99E	INTER	CROSS	N	N	RAIN	ANGL-OTH	01 NONE 0	STRGHT								04
	E r																		
	r																		
	o r																		
CITY	SU		YOUNG ST	CN		TRF SIGNAL	N	WET	ANGL	PRVTE	NE-SW							000	00
N	10A			03	0		N	DAY	INJ	PSNGR CAR		01 DRVR	INJC	34 F	OR-Y		020	000	04
N	45 8 13.29		008100100S00												OR<25				
	#	38.07								02 NONE 0	STRGHT								
	E																		
	r r																		
	o r																		
	±									PRVTE	NW-SE							000	00
										PSNGR CAR		01 DRVR	INJC	29 M			000	000	00
															OR<25				

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and YOUNG ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

15 - 16 of 36 Crash records shown.

	S D M												
SER#	P R J S	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE		
INVEST	E A U I C	O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE	A S
RD DPT	E L G N H	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC INJ G E LICNS PED
UNLOC?	D C S V L	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE SVRTY E X RES LOC ERROR ACT EVENT CAUSE
03950		N 09/21/2017	14	PACIFIC HY 99E	INTER	CROSS	N	N	CLR	S-OTHER	01 NONE 9	U-TURN	08
	E r r o r												
CITY		TH		YOUNG ST	CN		TRF SIGNAL	N	DRY	TURN	N/A	NE-NE	000 00
N N		4P 45 8 13.29	-122 50 38.07	008100100s00	03	0		N	DAY	PDO	PSNGR CAR		01 DRVR NONE 00 Unk UNK 000 000 00 UNK
	# E r o r										02 NONE 9	TURN-L	
	_										N/A	NE-SE	000 00
											PSNGR CAR		01 DRVR NONE 00 Unk UNK 000 000 00
													UNK
03276	N N N # N E r o	N 09/02/2018	14	PACIFIC HY 99E	INTER	CROSS	N	N	CLR	O-1 L-TUI	RN 01 NONE 0	TURN-L	02
CITY	_	SU		YOUNG ST	CN		TRF SIGNAL	N	DRY	TURN	PRVTE	SW-NW	000 00
N N		12P 45 8 13.29	-122 50 38.07	008100100800	01	0		N	DAY	INJ	PSNGR CAR		01 DRVR NONE 26 M NONE 028,004 000 02 N-RES
	# E r o										02 NONE 0	STRGHT	
	r										PRVTE	NE-SW	000 00
											PSNGR CAR		01 DRVR INJB 34 M OR-Y 000 000 00 OR<25
	# E r o r										02 NONE 0	STRGHT	
	-										PRVTE	NE-SW	000 00
											PSNGR CAR		02 PSNG INJB 29 F 000 000 00

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and YOUNG ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

17 - 18 of 36 Crash records shown.

	S D M																			
SER#	P R J S	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
INVEST	E A U I C	O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A	S				
RD DPT	E L G N H	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICNS	PED			
UNLOC?	D C S V L	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRTY	E	X RES	LOC	ERROR	ACT EVENT	CAUSE
01068		N 03/23/2019	14	PACIFIC HY 99E	INTER	CROSS	N	N	CLR	ANGL-OTH	01 NONE 0	STRGHT								33,30,04
	E r																			
	r																			
	o r																			
STATE	ī	SA		YOUNG ST	CN		TRF SIGNAL	N	DRY	ANGL	PRVTE	SW-NE							000	00
N		11A			02	0		N	DAY	INJ	PSNGR CAR		01 DRVR	INJC	33 M	OTH-Y		051,050,073	000	33,30,04
N		45 8 13.28		008100100S00												N-RES				
	#		38.06								02 NONE 0	STRGHT								
	E										02 110112 0	51110111								
	r																			
	0																			
	r										PRVTE	SE-NW							000	0.0
											PSNGR CAR	SE-IVW	01 DRVR	TNJC	56 N	OR-Y		000	000	00 00
											ronon onn		01 211111	21.00		OR<25				
	#										02 NONE 0	STRGHT								
	E																			
	r																			
	o r																			
	I										PRVTE	SE-NW							000	00
											PSNGR CAR		02 PSNG	INJC	24 M	I		000	000	00
		0.1 / 0.0 / 0.0 1.0									- 04									
00371	N N N # E	01/30/2019	14	PACIFIC HY 99E	INTER	CROSS	N	N	CLR	O-1 L-TUR	N 01 NONE 9	STRGHT								02
	r																			
	r o																			
	r																			
NO RPT		WE		YOUNG ST	CN		TRF SIGNAL	N	DRY	TURN	N/A	SE-NW							000	00
N		5P	100 50	000100100000	02	0		N	DUSK	PDO	PSNGR CAR		01 DRVR	NONE	00 t			000	000	00
N		45 8 13.29	-122 50 38.07	008100100S00												UNK				
	#										02 NONE 9	TURN-L								
	E																			
	r																			
	o r																			
	Ţ										N/A	NW-NE							000	00
											PSNGR CAR		01 DRVR	NONE	00 T			000	000	00
																UNK				

19 - 20 of 36 Crash records shown.

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY PACIFIC HY 99E and YOUNG ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

37.29

	S D M																			
	P R J S	W DATE	CLASS	CITY STREET		INT-TYPE	1				SPCL USE									
INVEST	E A U I C	O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			А	S				
RD DPT	E L G N H	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICNS	PED			
UNLOC?	D C S V L	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	ТО	P# TYPE	SVRT	Y E	X RES	LOC	ERROR	ACT EVENT	CAUSE
00452	N N N # E r r o r	02/04/2020	14	PACIFIC HY 99E	INTER	CROSS	N	N	CLR	O-1 L-TUR	N 01 NONE 0	TURN-L								02
CITY	T	TU		YOUNG ST	CN		TRF SIGNAL	N	DRY	TURN	PRVTE	NE-SE							000	00
N N		5P 45 8 13.26	-122 50 38.06	008100100S00	04	0		N	DAY	INJ	PSNGR CAR		01 DRVR	INJC	32 M	SUSP OR<25		028,004	000	02
	# E r o r										02 NONE 0	STRGHT								
	-										PRVTE PSNGR CAR	SW-NE	01 DRVR	INJC	42 M	OR-Y OR<25		000	000	00
02362	N N N # N E r r o r	N 08/07/2020	14	PACIFIC HY 99E	INTER	CROSS	N	N	CLR	ANGL-OTH	01 NONE 0	STRGHT								04
CITY	-	FR		YOUNG ST	CN		TRF SIGNAL	N	DRY	ANGL	PRVTE	SE-NW							000	00
N N		5P 45 8 13.3	-122 50 38.05	008100100S00	01	0		N	DAY	INJ	PSNGR CAR		01 DRVR	INJC	59 F	NONE OR<25		020	000	04
	# E r o r										02 NONE 0	STRGHT								
	_										PRVTE PSNGR CAR	NE-SW	01 DRVR	INJC	41 F	OR-Y OR<25		000	000	00
00280	N N N # E r r o r	01/20/2016	14	PACIFIC HY 99E	ALLEY		N	Y	RAIN	FIX OBJ	01 NONE 0	TURN-R							058	08
NONE		WE		YOUNG ST	NE	(NONE)	UNKNOWN	N	WET	FIX	PRVTE	SW-SE							018 058	00
Y N		6P 45 8 14.16	-122 50	008100100s00	08	(04)		N	DLIT	INJ	PSNGR CAR		01 DRVR	INJC	33 F	OR-Y OR<25		002	000	08

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and YOUNG ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

21 - 23 of 36 Crash records shown.

	S D M																			
SER#	P R J S W DAT	E C	CLASS	CITY STREET		INT-TYPE					SPCL USE									
INVEST	E A U I C O DAY	D	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A	S				
RD DPT	E L G N H R TIM	E F	ROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICNS	PED			
UNLOC?	D C S V L K LAT	I	JONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO DDVD D	P# TYPE	SVRTY	E	X RES	LOC	ERROR	ACT EVENT	CAUSE
	# E r o r										02 NONE 0	PRKD-P								
	ı										PRVTE PSNGR CAR	NW-SE							009	00
04369	N N N # N N 10/ E r r	16/2017	14	PACIFIC HY 99E	ALLEY		N	N	CLR	0-1 L-TU	JRN 01 NONE 0	STRGHT								02
CITY	r MO			YOUNG ST	NE	(NONE)	UNKNOWN	N	DRY	TURN	PRVTE	NE-SW							000	00
N N	4P 45	8 15.02 -	-122 50 86.52	008100100s00	04	(04)		N	DAY	INJ	PSNGR CAR		01 DRVR	NONE	39 M	NONE OR<25		000	000	00
	# E r o	J	.52								02 NONE 0	TURN-L								
	_										PRVTE PSNGR CAR	SW-NW	01 DRVR	INJC	68 F	OR-Y OR<25		028,004	019 000	00 02
03253	N N N # N N 08/ E r r o	31/2018	14	PACIFIC HY 99E	ALLEY		N	N	CLR	0-1 L-T	JRN 01 NONE 0	STRGHT							082	02
CITY	FR			YOUNG ST	NE	(NONE)	UNKNOWN	N	DRY	TURN	PRVTE	NE-SW							000	00
N N	10A 45	8 15.03 -	-122 50 36.52	008100100s00	03	(04)		N	DAY	INJ	PSNGR CAR		01 DRVR	INJC	64 M	OR-Y OR<25		000	000	00
	# E r c o	-									02 NONE 0	TURN-L								
											PRVTE PSNGR CAR	SW-NW	01 DRVR	NONE	17 M	OR-Y OR<25		028	019 000 082	00 02

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and YOUNG ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

24 - 25 of 36 Crash records shown.

S D M																		
SER# P R J	S W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE								
INVEST E A U I	C O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A	S			
RD DPT E L G N	H R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICNS PED			
UNLOC? D C S V	L K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	ТО	P# TYPE	SVRT	Y E	X RES LOC	ERROR	ACT EVENT	CAUSE
03549 N N N #	11/18/2020	14	PACIFIC HY 99E	ALLEY		N	N	RAIN	ANGL-OTH	01 NONE 9	TURN-L							02
E r																		
r																		
o r																		
NONE	WE		YOUNG ST	NE	(NONE)	UNKNOWN	N	WET	TURN	N/A	NW-NE						018	00
N	4 P			00			N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00	Unk UNK	000	000	00
N	45 8 14.58	-122 50 36.92	008100100S00		(04)										UNK			
#		30.72								02 NONE 9	STRGHT							
E																		
r																		
0 r																		
-										N/A	SW-NE						000	00
										PSNGR CAR		01 DRVR	NONE	00		000	000	00
															UNK			
04129 N N N # E	N N 10/21/2019	16	YOUNG ST	ALLEY		N	N	CLR	ANGL-OTH	01 NONE 9	UNK							02
r																		
r																		
r																		
CITY	MO	85	PACIFIC HY 99E	NW	(NONE)	UNKNOWN	N	DRY	TURN	N/A	N -UN						018	00
N	2P			07			N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00		000	000	00
N	45 8 13.99	-122 50 39.74			(02)										UNK			
#		33.71								02 NONE 9	STRGHT							
E																		
r																		
o r																		
1										N/A	SE-NW						000	00
										PSNGR CAR		01 DRVR	NONE	00		000	000	00
															UNK			
02851 N N N # E	09/20/2020	16	YOUNG ST	ALLEY		N	N	CLR	ANGL-OTH	01 NONE 9	TURN-R							02
r																		
r																		
r																		
NO RPT	SU	85	PACIFIC HY 99E	NW	(NONE)	UNKNOWN	N	DRY	TURN	N/A	NE-NW						018	00
N	3P			07			N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00		000	000	00
N	45 8 13.99	-122 50 39.76			(02)										UNK			

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and YOUNG ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

26 - 28 of 36 Crash records shown.

	S D M																		
SER#	P RJS	W DATE	CLASS	CITY STREET		INT-TYPE	E				SPCL USE								
INVEST	E A U I C	O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A S	3			
RD DPT	ELGNH	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G I	E LICNS PED			
UNLOC?	D C S V L	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRTY	E 2	RES LOC	ERROR	ACT EVENT	CAUSE
	# E r o r										02 NONE 9	STRGHT							
	-										N/A	SE-NW						000	00
											PSNGR CAR		01 DRVR	NONE	00 Ur	ık UNK UNK	000	000	00
01047	N N N # N : E r r o	N 03/17/2017	14	PACIFIC HY 99E	STRGHT		N	N	CLD	S-STRGHT	01 NONE 0	STRGHT							13
CITY	_	FR		YOUNG ST	NE	(NONE)	UNKNOWN	N	WET	SS-0	PRVTE	NE-SW						000	00
N N		11P 45 8 14.59	-122 50 36.91	008100100S00	04	(04)		N	DLIT	INJ	PSNGR CAR		01 DRVR	NONE	32 M	OTH-Y N-RES	045	000	13
	# E r r		30.91								02 NONE 0	STRGHT							
	r										PRVTE	NE-SW						000	00
											PSNGR CAR		01 DRVR	INJC	33 M	OR-Y OR<25	000	000	00
01537	N N N # E r r o r	04/20/2017	14	PACIFIC HY 99E	STRGHT		N	N	CLR	S-1STOP	01 NONE 9	STRGHT							29
NONE	±	TH		YOUNG ST	NE	(NONE)	UNKNOWN	N	DRY	REAR	N/A	SW-NE						000	00
N N		4P 45 8 14.59		008100100S00	06	(04)		N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00 Ur	ık UNK UNK	000	000	00
	# E r o r		36.91								02 NONE 9	STOP							
											N/A PSNGR CAR	SW-NE	01 DRVR	NONE	00 Ur	ık UNK UNK	000	011 000	00 00

29 - 30

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

of 36 Crash records shown.

016,026

038

27,29

01 DRVR NONE 71 F OR-Y

OR>25

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY PACIFIC HY 99E and YOUNG ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

04

(04)

008100100S00

11A

Е

0

45 8 14.59 -122 50

36.91

S D M P CLASS INT-TYPE SPCL USE SER# R J S W DATE CITY STREET RD CHAR DIST FIRST STREET WTHR TRLR QTY MOVE A S INVEST E A U I C O DAY (MEDIAN) INT-REL OFFRD CRASH FROM SECOND STREET DIRECT COLL OWNER FROM PRTC G E LICNS PED RD DPT E L G N H R TIME LEGS TRAF-RNDBT SURF INJ UNLOC? D C S V L K LAT LONG LOCTN TO P# TYPE SVRTY ERROR ACT EVENT CAUSE (#LANES) CONTL DRVWY LIGHT SVRTY V# TYPE E X RES LOC 03202 N N N # 08/07/2017 PACIFIC HY 99E STRGHT CLR S-1STOP 01 NONE STRGHT 29 000 00 NO RPT MO YOUNG ST NE (NONE) UNKNOWN DRY REAR N/A SW-NE 00 01 DRVR NONE 00 Unk UNK 000 000 00 1P DAY PSNGR CAR PDO N 45 8 14.59 -122 50 008100100S00 (04)UNK 36.91 02 NONE STOP 0 N/A SW-NE 011 00 PSNGR CAR 000 000 00 01 DRVR NONE 00 Unk UNK UNK 00543 N N N # 02/16/2018 14 Y N 01 NONE 27,29 PACIFIC HY 99E STRGHT RAIN S-1STOP STRGHT r 0 NONE FR YOUNG ST NE (NONE) UNKNOWN WET REAR PRVTE NE-SW 000 00

											PRVTE	NE-SW						011	00
											PSNGR CAR		01 DRVR	INJC	65	M OR-Y	000	000	00
																OR<25			
02708	N Y N # N :	N 09/06/2020	14	PACIFIC HY 99E	STRGHT		Y	N	CLR	S-1STOP	01 NONE 9	STRGHT							07
	E																		
	r																		
	r																		
	0																		
	r																		
CITY		SU		YOUNG ST	NE	(NONE)	UNKNOWN	N	DRY	REAR	N/A	NE-SW						000	00
N		2A			03			N	DLIT	PDO	PSNGR CAR		01 DRVR	NONE	0.0	Unk UNK	000	000	00
N		45 8 14.16	-122 50 37.3	008100100S00		(04)										UNK			

DAY

INJ

PSNGR CAR

02 NONE

STOP

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and YOUNG ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

Page: 27

31 - 33 of 36 Crash records shown.

S	D M																					
SER# P	R J S	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE											
INVEST E A	U I C	O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE				A S						
RD DPT E L	G N H	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ		G E	LICN	S PEI)			
UNLOC? D C	S V L	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRT	ГҮ	E X	RES	LOC	C E	RROR	ACT EVENT	CAUSE
	# E r r o r										02 NONE 9	STOP										
											N/A	NE-SW									011	00
											PSNGR CAR		01 DRVR	NONE	Ξ 0	00 Unk	k UNK UNK		0	000	000	00
01257 N N	N # E r r o	04/11/2020	16	YOUNG ST	STRGHT		Y	N	CLR	S-1STOP	01 NONE 0	STRGHT										29
NO RPT	T	SA		PACIFIC HY 99E	SE	(NONE)	UNKNOWN	N	DRY	REAR	PRVTE	SE-NW									000	00
N N		7P 45 8 12.92		014000100S00	04	(02)		N	DUSK	INJ	PSNGR CAR		01 DRVR	NONE	Ξ 2	21 F	OR-Y		0	26	000	29
	# E r r		37.1								02 NONE 0	STOP										
	r										PRVTE PSNGR CAR	SE-NW	01 DRVR	NONE	E 8	32 F	OR-Y		0	00	011 000	00 00
	# E r r										02 NONE 0	STOP					OR<2	5				
	r										PRVTE	SE-NW									011	00
											PSNGR CAR	52 1	02 PSNG	INJC	C 5	59 F			0	00	000	00
04658 N N	E r r o	N 12/06/2018	16	PACIFIC HY 99E	STRGHT		N	N	CLR	S-1STOP	01 NONE 9	STRGHT										07
CITY	r	TH		YOUNG ST	SW	(NONE)	UNKNOWN	N	DRY	REAR	N/A	NE-SW									000	00
N N				008100100S00	04	(04)		N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	Ξ 0	00 Unk	k UNK UNK		0	000	000	00
	# E r r o		38.9								02 NONE 9	STOP										
	r										N/A PSNGR CAR	NE-SW	01 DRVR	NONE	Ξ 0	00 Unk	k UNK UNK		0	00	011 000	00

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and YOUNG ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

34 - 35 of 36 Crash records shown.

	S D M																			
SER#	P RJS	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
INVEST	E A U I C	O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A S	;				
RD DPT	E L G N H	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G E	LICNS	PED			
UNLOC?	D C S V L	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRTY	E X	RES	LOC	ERROR	ACT EVENT	CAUSE
03011	N N N # E r r	08/08/2019	16	PACIFIC HY 99E	STRGHT		Y	N	RAIN	S-1STOP	01 NONE 9	STRGHT								29
NONE	o r	TH		YOUNG ST	SW	(NONE)	UNKNOWN	N	WET	REAR	N/A	SW-NE							000	00
N N		11A 45 8 12.38	-122 50	008100100s00	00	(04)		N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00 Un	k UNK UNK		000	000	00
	# E		38.89								02 NONE 9	STOP								
	r r o r																			
											n/A PSNGR CAR	SW-NE	01 DRVR	NONE	00 Un	k UNK UNK		000	011 000	00
02712	N N N # E r r	09/06/2020	16	PACIFIC HY 99E	STRGHT		N	N	CLR	S-1STOP	01 NONE 9	STRGHT								29
NONE	r	SU		YOUNG ST	SW	(NONE)	UNKNOWN	N	DRY	REAR	N/A	SW-NE							000	00
N N		3P 45 8 12.36	-122 50 38.91	008100100s00	00	(04)		N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00 Un	k UNK UNK		000	000	00
	# E r r										02 NONE 9	STOP								
	r										N/A PSNGR CAR	SW-NE	01 DRVR	NONE	00 Un	k UNK UNK		000	011 000	00
03400	N N N # E r r	11/10/2020	16	PACIFIC HY 99E	STRGHT		N	N	CLR	S-STRGHT	01 NONE 9	STRGHT								13,27
CITY	r	TU		YOUNG ST	SW	(NONE)	UNKNOWN	N	DRY	SS-0	N/A	NE-SW							000	00
N N		7P 45 8 12.37	-122 50 38.92	008100100s00	04	(04)		N	DLIT	PDO	PSNGR CAR		01 DRVR	NONE	00 Un	k UNK UNK		000	000	00

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION CDS380 Page: 31 03/10/2023

TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY PACIFIC HY 99E and YOUNG ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

36 - 36 of 36 Crash records shown.

S D M																	
SER# P R J S W DATE	CLASS	CITY STREET		INT-TYPE				SPCL USE									
INVEST E A U I C O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN) INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A	S				
RD DPT E L G N H R TIME	FROM	SECOND STREET	DIRECT	LEGS TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICNS	PED			
UNLOC? D C S V L K LAT	LONG	LRS	LOCTN	(#LANES) CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRTY	E	X RES	LOC	ERROR	ACT EVENT	CAUSE
#								02 NONE 9	STRGHT								
E																	
r																	
r																	
0																	
r																	
								N/A	NE-SW							000	00
								PSNGR CAR		01 DRVR	NONE	J 00	Unk UNK		000	000	00
													UNK				

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

PACIFIC HY 99E and YOUNG ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

		MAJOR	MODERATE	MINOR	PROP					
	FATAL	INJURY	INJURY	INJURY	DAMAGE	TOTAL	PEOPLE	MAJOR	MODERATE	MINOR
COLLISION TYPE	CRASHES	CRASHES	CRASHES	CRASHES	ONLY	CRASHES	KILLED	INJURIES	INJURIES	INJURIES
YEAR: 2020										
ANGLE	0	0	0	1	0	1	0	0	0	2
REAR-END	0	0	0	1	2	3	0	0	0	1
SIDESWIPE - OVERTAKING	0	0	0	0	1	1	0	0	0	0
TURNING MOVEMENTS	0	0	0	1	2	3	0	0	0	2
2020 TOTAL	0	0	0	3	5	8	0	0	0	5
YEAR: 2019										
ANGLE	0	0	0	1	0	1	0	0	0	3
REAR-END	0	0	1	0	1	2	0	0	1	0
TURNING MOVEMENTS	0	0	0	0	2	2	0	0	0	0
2019 TOTAL	0	0	1	1	3	5	0	0	1	3
YEAR: 2018										
REAR-END	0	0	0	1	1	2	0	0	0	1
TURNING MOVEMENTS	0	0	1	1	0	2	0	0	2	1
2018 TOTAL	0	0	1	2	1	4	0	0	2	2
YEAR: 2017										
ANGLE	0	0	1	2	0	3	0	0	1	5
REAR-END	0	0	0	1	4	5	0	0	0	1
SIDESWIPE - OVERTAKING	0	0	0	1	1	2	0	0	0	1
TURNING MOVEMENTS	0	0	0	3	2	5	0	0	0	4
2017 TOTAL	0	0	1	7	7	15	0	0	1	11
YEAR: 2016										
FIXED / OTHER OBJECT	0	0	0	1	0	1	0	0	0	1
TURNING MOVEMENTS	0	0	0	2	1	3	0	0	0	3
2016 TOTAL	0	0	0	3	1	4	0	0	0	4
FINAL TOTAL	0	0	3	16	17	36	0	0	4	25

of 52 Crash records shown.

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URBAN NON-SYSTEM CRASH LISTING

1 - 1

CITY OF WOODBURN, MARION COUNTY PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

S D M

- "	S D M																				
	P RJS		CLASS	CITY STREET		INT-TYPE					SPCL USE										
	EAUIC		DIST	FIRST STREET	RD CHAR		INT-REL	OFFRD		CRASH	TRLR QTY	MOVE				S					
	ELGNH		FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT		COLL	OWNER	FROM	PRTC				LICNS				
	D C S V L		LONG	LRS	LOCTN	(#LANES)	CONTL		LIGHT		V# TYPE	ТО	P# TYPE	SVRT	Y E	Х	RES	LOC	ERROR	ACT EVENT	CAUSE
05030	N N N #	11/13/2016	16	CLEVELAND ST	INTER	3-LEG	N	N	RAIN	S-1STOP	01 NONE 0	STRGHT									29
	E r																				
	r																				
	o r																				
NONE	T	SU		PACIFIC HY 99E	SW		STOP SIGN	N	WET	REAR	PRVTE	SW-NE								000	00
N N		6P 45 8 8.64	100 50	008100100S00	06	0		N	DLIT	INJ	PSNGR CAR		01 DRVR	NONE	: 00		OR-Y UNK		026	000	29
IN		45 0 0.04	42.25	000100100500													UNK				
	#										02 NONE 0	STOP									
	E r																				
	r																				
	0																				
	r										PRVTE	SW-NE								012	00
											PSNGR CAR		01 DRVR	NONE	40	F	OR-Y		000	000	00
																	OR<25				
	#										02 NONE 0	STOP									
	E r																				
	r																				
	0																				
	r										PRVTE	SW-NE								012	00
											PSNGR CAR		02 PSNG	INJC	64	M			000	000	00
	#										02 NONE 0	STOP									
	E r																				
	r																				
	0																				
	r										PRVTE	SW-NE								012	00
											PSNGR CAR		03 PSNG	INJC	: 68	F			000	000	00
02824	N N N #	07/15/2017	16	CLEVELAND ST	INTER	3-LEG	N	N	CLR	S-1STOP	01 NONE 0	STRGHT								013	07
	E																				
	r r																				
	0																				
CITY	r	SA		PACIFIC HY 99E	SW		STOP SIGN	M	DRY	REAR	PRVTE	S -N								000	00
CIII		SA		PACIFIC HI 99E	SW		SIOP SIGN	1//	DRI	KEAK	PRVIE	2 -11								000	00
N		4P			06	0		N	DAY	INJ	PSNGR CAR		01 DRVR	NONE	26				043,026	000	07
N		45 8 8.64		008100100S00													OR<25				
	#		42.25								02 NONE 0	STOP									
	E											2222									
	r																				
	r																				
	r																				
											PRVTE	S -N	01 555	T3770	. 04		OD 37		000	011 013	00
											PSNGR CAR		01 DRVR	TNJC	: 24		OR-Y OR<25		000	022	00
																	01(~23				

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

2 - 4 of 52 Crash records shown.

	S D M																		
SER#	P RJS	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE								
	EAUIC		DIST	FIRST STREET	RD CHAR		INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A	S			
	ELGNH		FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT		COLL	OWNER	FROM	PRTC	INJ		E LICNS PED			
UNLOC?	DCSVL	K LAT	LONG	LRS	LOCTN	(#LANES)		DRVWY	LIGHT		V# TYPE	TO	P# TYPE					ACT EVENT	CAUSE
	# E r o r										03 NONE 0	STOP							
	_										PRVTE	S -N						012	00
											PSNGR CAR		01 DRVR	NONE	18 M	OTH-Y	000	000	00
02467	N N N # E r r o r	06/21/2017	16	CLEVELAND ST	INTER	3-LEG	N	N	CLR	S-1STOP	01 NONE 9	STRGHT							29
NONE		WE		PACIFIC HY 99E	SW		TRF SIGNAL	N	DRY	REAR	N/A	SW-NE						000	00
N N		4P 45 8 8.64	-122 50 42.25	008100100S00	06	0		N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00 U	nk UNK UNK	000	000	00
	# E r c o r										02 NONE 9 N/A PSNGR CAR	STOP SW-NE	01 DRVR	NONE	ت 00	ink UNK	000	011 000	00 00
																UNK			
03304	N N N # N E r c c c c c c c c c c c c c c c c c c	N 08/29/2019	16	CLEVELAND ST	INTER	3-LEG	N	N	CLD	S-1TURN	01 NONE 0	STRGHT							07
CITY	_	TH		PACIFIC HY 99E	SW		STOP SIGN	N	WET	REAR	PRVTE	SW-NE						000	00
N N		5A 45 8 8.64	-122 50 42.27	008100100s00	06	0		N	DLIT	INJ	PSNGR CAR		01 DRVR	INJB	55 F	OR-Y OR<25	043,026	000	07
	# E r o r		12.27								02 UNKN 0	STOP							
											UNKN PSNGR CAR	SW-NE	01 DRVR	NONE	00 U	nk UNK UNK	000	012 000	0 0 0 0

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

5 - 6 of 52 Crash records shown.

	S D M																			
SER#	P RJS	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
INVEST	E A U I C	O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A	S				
RD DPT	E L G N H	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICNS	PED			
UNLOC?	D C S V L	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	ТО	P# TYPE	SVRTY	E	X RES	LOC	ERROR	ACT EVENT	CAUSE
00446	N Y N #	01/31/2016	16	CLEVELAND ST	INTER	3-LEG	N	N	CLD	ANGL-STP	01 NONE 9	TURN-R								08
	E r																			
	r																			
	o r																			
CITY		SU		PACIFIC HY 99E	NW		STOP SIGN	N	WET	TURN	N/A	NE-NW							000	00
N		6P			06	0		N	DLIT	PDO	PSNGR CAR		01 DRVR	NONE	00 U:	nk UNK		000	000	00
N		45 8 8.64		008100100S00												UNK				
	#		42.25								02 NONE 9	STOP								
	E										02 1.01.2	2101								
	r r																			
	0																			
	r										N/A	NW-SE							012	00
											PSNGR CAR	52	01 DRVR	NONE	00 U:	nk UNK		000	000	00
																UNK				
03306		N 08/29/2019	16	CLEVELAND ST	INTER	3-LEG	N	N	CLD	ANGL-STP	01 NONE 0	TURN-R								08
	E r																			
	r																			
	o r																			
CITY	-	TH		PACIFIC HY 99E	NW		STOP SIGN	N	WET	TURN	PRVTE	NE-NW							000	00
N		бA			06	0		N	DAWN	INJ	PSNGR CAR		01 DRVR	INJC	27 M	SUSP		001	000	08
N		45 8 8.66		008100100S00												OR<25				
	#		42.26								02 NONE 0	STOP								
	E										02 1.01.2	2101								
	r																			
	0																			
	r										PRVTE	NW-SE							012	00
											PSNGR CAR	IW-DE	01 DRVR	NONE	29 M	OR-Y		000	000	00
																OR<25				
02923	N N N # N	N 07/13/2016	16	CLEVELAND ST	INTER	3-LEG	N	N	CLR	0-1 L-TUR	N 01 NONE 0	STRGHT								02
	E r																			
	r																			
	o r																			
CITY	<u>.</u>	WE		PACIFIC HY 99E	CN		STOP SIGN	N	DRY	TURN	PRVTE	NE-SW							000	00
N		2P			01	0		N	DAY	INJ	PSNGR CAR		01 DRVR	INJC	20 F	OR-Y		000	000	00
N		45 8 8.64		008100100S00												OR<25				
			42.25																	

URBAN NON-SYSTEM CRASH LISTING

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CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

7 - 9 of 52 Crash records shown.

:	S D M																			
ER# 1	P R J S W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE										
	E A U I C O DAY	DIST	FIRST STREET	RD CHAR		INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			А	S					
	E L G N H R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT		COLL	OWNER	FROM	PRTC	INJ			LICNS	PED			
	D C S V L K LAT	LONG	LRS	LOCTN	(#LANES)			LIGHT		V# TYPE	TO	P# TYPE			Х		LOC	ERROR	ACT EVENT	CAUSE
	#									02 NONE 0	TURN-L									
	E r																			
	r																			
	0																			
	r									PRVTE	SW-NW								000	00
										PSNGR CAR		01 DRVR	NONE	33	M	OR-Y		028,004	000	02
																OR>25				
703 1	N N N # N N 08/27/2016	16	CLEVELAND ST	INTER	3-LEG	N	N	CLR	ANGL-OTH	01 NONE 0	STRGHT									02
	E																			
	r r																			
	0																			
ΓY	r SA		PACIFIC HY 99E	CN		STOP SIGN	N	DRY	TURN	PRVTE	NE-SW								000	00
			Inclife iii 55E			BIOI BION					112 511									
	3P			03	0		N	DAY	INJ	PSNGR CAR		01 DRVR	INJC	52		SUSP		000	000	00
	45 8 8.64	-122 50 42.25	008100100S00													OR<25				
	#	12.25								02 NONE 0	TURN-L									
	E																			
	r																			
	0																			
	r									PRVTE	NW-NE								015	00
										PSNGR CAR	IVW-IVE	01 DRVR	NONE	41	М	OTH-Y	-	028	000	02
																N-RES				
	#									02 NONE 0	TURN-L									
	E																			
	r																			
	0																			
	r									PRVTE	NW-NE								015	00
										PSNGR CAR	1111 112	02 PSNG	INJC	. 06	M			000	000	00
490 1	N N N # N N 02/03/2016	16	CLEVELAND ST	INTER	3-LEG	N	N	RAIN	ANGL-OTH	01 NONE 0	STRGHT									02
	E																			
	r r																			
	0																			
TY	r WE		PACIFIC HY 99E	CN		STOP SIGN	M	WET	TURN	PRVTE	NE-SW								000	00
11	WE		FACIFIC III JOE	CIV		SIOF SIGN	IA	WEI	TOKIN	FKVIE	NE-5W								000	00
	4P			03	0		N	DAY	INJ	PSNGR CAR		01 DRVR	INJE	69				000	000	00
	45 8 8.64	-122 50 42.25	008100100S00													OR>25				
	#	42.25								02 NONE 0	TURN-L									
	E																			
	r r																			
	0																			
	r									Dormo	NT. 7 NT.								0.00	0.0
										PRVTE PSNGR CAR	NW-NE	01 DRVR	TNLTC	1 26	м	FYD		028	000 000	00 02
										AAJ ADMGI		OI DKAK	TINOC	. 30		OR<25		020	000	02
																020.42.				

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

10 - 11 of 52 Crash records shown.

	S D M																			
	P R J S	W DATE	CLASS	CITY STREET		INT-TYPE	:				SPCL USE									
	EAUIC		DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A	S				
RD DPT	ELGNH	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICNS	PED			
UNLOC?	D C S V L	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRT	ΖE	X RES	LOC	ERROR	ACT EVENT	CAUSE
03693		08/26/2016	16	CLEVELAND ST	INTER	3-LEG	N	N	CLR	ANGL-OTH	01 NONE 9	TURN-L								02
	E r																			
	r																			
	o r																			
CITY	ī	FR		PACIFIC HY 99E	CN		STOP SIGN	N	DRY	TURN	N/A	NW-NE							000	00
N		7P			03	0		N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00 U	nk UNK		000	000	00
N		45 8 8.64		008100100800												UNK				
	#		42.25								02 NONE 9	STRGHT								
	E										oz nonz	DIRGII								
	r																			
	0																			
	r										N/A	NE-SW							000	00
											PSNGR CAR	NE SW	01 DRVR	NONE	00 U	nk UNK		000	000	00
																UNK				
00340		N 01/27/2017	16	CLEVELAND ST	INTER	3-LEG	N	N	CLD	ANGL-OTH	01 NONE 0	TURN-L								02
	E r																			
	r																			
	o r																			
CITY	_	FR		PACIFIC HY 99E	CN		STOP SIGN	N	DRY	TURN	PRVTE	NW-NE							000	00
N		3P			03	0		N	DAY	INJ	PSNGR CAR		01 DRVR	NONE	59 M	I OR-Y		028	000	02
N		45 8 8.64		008100100S00												OR<25				
	#		42.25								02 NONE 0	STRGHT								
	E																			
	r																			
	0																			
	r										PRVTE	NE-SW							000	00
											PSNGR CAR		01 DRVR	INJC	38 F	OR-Y		000	000	00
																OR<25				
01264		N 04/02/2017	16	CLEVELAND ST	INTER	3-LEG	N	N	CLR	O-1 L-TUR	N 01 NONE 0	STRGHT								02
	E r																			
	r																			
	o r																			
CITY	-	SU		PACIFIC HY 99E	CN		STOP SIGN	N	DRY	TURN	PRVTE	NE-SW							000	00
N		1P			01	0		N	DAY	INJ	PSNGR CAR		01 DRVR	NONE	36 M	I OR-Y		000	000	00
N		45 8 8.64	-122 50 42.25	008100100S00												OR<25				

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URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

12 - 14 of 52 Crash records shown.

	S D M																			
SER#	P R J S W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE										
	E A U I C O DAY	DIST	FIRST STREET	RD CHAR		INT-REL	OFFDD.	WTHR	CRASH	TRLR QTY	MOVE			7\	S					
	E L G N H R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT		COLL	OWNER	FROM	משמת	INJ			LICNS	חשת			
	D C S V L K LAT	LONG	LRS	LOCTN	(#LANES)				SVRTY	V# TYPE	TO	P# TYPE			X		LOC	ERROR	ACT EVENT	CAUSE
ONLOC:	#	HONG	шкр	HOCIN	(#IMNES)	CONTE	DRVWI	ши	BVKII	01 NONE 0	STRGHT	E# IIFE	SVKI	1 15	Λ.	KED	пос	ERROR	ACT EVENT	CAUSE
	E																			
	r r																			
	0																			
	r									PRVTE	NE-SW								000	00
										PSNGR CAR	NE SW	02 PSNG	INJB	07	M			000	000	00
	#									02 NONE 0	TURN-L									
	E																			
	r																			
	o r																			
	ī									PRVTE	SW-NW								000	00
										PSNGR CAR		01 DRVR	NONE	19	F	OR-Y		028,004	000	02
																OR<25				
01616	N N N # N N 04/26/2017	7 16	CLEVELAND ST	INTER	3-LEG	N	N	RAIN	ANGL-OTH	01 NONE 0	STRGHT									10
	E r																			
	r																			
	o r																			
CITY	WE		PACIFIC HY 99E	CN		STOP SIGN	N	WET	TURN	PRVTE	NE-SW								000	00
NT	107			0.3	0		NT.	DA1/	TNIT	DOMOD GAD		01 DDIM	TNITO	67	M	OD 17		010	0.00	1.0
N N	10A 45 8 8.64	-122 50	008100100s00	03	0		N	DAY	INJ	PSNGR CAR		01 DRVR	INJC	6 /		OR-Y OR<25		010	000	10
11	13 0 0.01	42.25	000100100500													01(123				
	# E									02 NONE 0	TURN-L									
	r																			
	r																			
	o r																			
										PRVTE	NW-NE								015	00
										PSNGR CAR		01 DRVR	INJC	77				028	000	00
																OR<25				
03746	N N N # N N 09/11/2017 E	7 16	CLEVELAND ST	INTER	3-LEG	N	N	CLR	ANGL-OTH	01 NONE 9	TURN-R									27,02
	r																			
	r																			
	o r																			
CITY	MO		PACIFIC HY 99E	CN		STOP SIGN	N	DRY	TURN	N/A	NW-SW								000	00
N	5P			03	0		N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	0.0	Unk	UNK		000	000	00
N		-122 50	008100100S00		-											UNK				
		42.25																		
	# E									02 NONE 9	STRGHT									
	r																			
	r																			
	r																			
										N/A	NE-SW								000	00
										PSNGR CAR		01 DRVR	NONE	00				000	000	00
																UNK				

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

15 - 16 of 52 Crash records shown.

	S D M																			
SER#	P RJS	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
	EAUIC		DIST	FIRST STREET	RD CHAR		INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A	S				
RD DPT	ELGNH	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICN	S PED			
UNLOC?	D C S V L	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRTY	E	X RES	LOC	ERROR	ACT EVENT	CAUSE
04810	N N N #	11/08/2017	16	CLEVELAND ST	INTER	3-LEG	N	N	RAIN	ANGL-OTH	01 NONE 9	STRGHT								02
	E r																			
	r																			
	o r																			
NONE	_	WE		PACIFIC HY 99E	CN		STOP SIGN	N	WET	TURN	N/A	NE-SW							000	00
N		9P			03	0		N	DARK	PDO	PSNGR CAR		01 DRVR	NONE	υ 00	Jnk UNK		000	000	00
N		45 8 8.64		008100100S00												UNK				
	#		42.25								02 NONE 9	TURN-L								
	E										02 1.01.2	1014. 1								
	r r																			
	0																			
	r										N/A	NW-NE							000	00
											PSNGR CAR	1111 112	01 DRVR	NONE	υ 00	Jnk UNK		000	000	00
																UNK				
01290		N 04/16/2018	16	CLEVELAND ST	INTER	3-LEG	N	N	CLD	ANGL-OTH	01 NONE 0	STRGHT								02
	E r																			
	r																			
	o r																			
CITY	_	MO		PACIFIC HY 99E	CN		STOP SIGN	N	WET	TURN	PRVTE	NE-SW							000	00
N		6A			03	0		N	DAY	INJ	PSNGR CAR		01 DRVR	INJC	58 E	F OR-Y		000	000	00
N		45 8 8.65		008100100S00												OR<2	5			
	#		42.26								02 NONE 0	TURN-L								
	E																			
	r																			
	0																			
	r										PRVTE	NW-NE							015	00
											PSNGR CAR		01 DRVR	NONE	23 N	M OR-Y		028	000	02
																OR<2	5			
03539	N N N #	09/20/2018	16	CLEVELAND ST	INTER	3-LEG	N	N	CLR	ANGL-OTH	01 NONE 0	TURN-L								02
	E r																			
	r																			
	o r																			
NONE		TH		PACIFIC HY 99E	CN		STOP SIGN	N	DRY	TURN	PRVTE	NW-NE							000	00
N		1P			03	0		N	DAY	INJ	PSNGR CAR		01 DRVR	NONE	23 E			028	000	02
N		45 8 8.64		008100100S00												OR>2	5			
			42.25																	

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

17 - 19 of 52 Crash records shown.

	S D M																			
ER#	P RJS	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
NVEST	E A U I C	O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A	S				
D DPT	E L G N H	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICNS	PED			
NLOC?	D C S V L	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRT	Y E	X RES	LOC	ERROR	ACT EVENT	CAUSE
	# E r o r										02 NONE 0	STRGHT								
	L										PRVTE	NE-SW							000	00
											PSNGR CAR		01 DRVR	INJC	23	F OR-Y OR<25		000	000	00
313	N N N # N : E r r o	N 06/28/2018	16	CLEVELAND ST	INTER	3-LEG	И	N	CLR	ANGL-OTH	01 NONE 9	TURN-L								02
TTY	1	TH		PACIFIC HY 99E	CN		STOP SIGN	N	DRY	TURN	N/A	NW-NE							000	00
		11A 45 8 8.66	-122 50	008100100s00	03	0		N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00	Unk UNK UNK		000	000	00
	# E r r		42.26								02 NONE 9	TURN-L								
	r										N/A	SW-NW							000	00
											PSNGR CAR	SW-IVW	01 DRVR	NONE	00	Unk UNK UNK		000	000	00
012	N N N # N : E	N 08/15/2018	16	CLEVELAND ST	INTER	3-LEG	N	N	CLR	ANGL-OTH	01 NONE 9	TURN-L							082	02
TY	r	WE		PACIFIC HY 99E	CN		STOP SIGN	N	DRY	TURN	N/A	NW-NE							015	00
		5P 45 8 8.65		008100100S00	03	0		N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00	Unk UNK UNK		000	000	00
	# E r r		42.26								02 NONE 9	STRGHT								
	r										N/A	NE-SW							000	00
											PSNGR CAR		01 DRVR	NONE	00	Unk UNK UNK		000	000	00

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

20 - 21 of 52 Crash records shown.

	S D M																					
SER#	P RJS	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE											
INVEST	EAUIC	O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE				Α	S					
RD DPT	E L G N H	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	-	G	E LIC	NS PE	D			
UNLOC?	D C S V L	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVR	TY	E	X RES	LO	C I	ERROR	ACT EVENT	CAUSE
04529	N N N # E	11/27/2018	16	CLEVELAND ST	INTER	3-LEG	N	N	CLR	ANGL-OTH	01 NONE 9	TURN-L										02
	r r o																					
NO RPT	r	TU		PACIFIC HY 99E	CN		STOP SIGN	N	DRY	TURN	N/A	NW-NE									000	00
N N		12P 45 8 8.63	-122 50 42.27	008100100S00	03	0		N	DAY	PDO	PSNGR CAR		01 DRVR	NON	ie (00 1	Unk UNK UNK		(000	000	00
	# E r		42.27								02 NONE 9	STRGHT										
	o r										N/A	NE-SW									000	00
											PSNGR CAR		01 DRVR	NON	E (00 1	Unk UNK UNK			000	000	00
04895	E r r o	N 12/20/2018	16	CLEVELAND ST	INTER	3-LEG	N	N	CLD	ANGL-OTH	01 NONE 9	TURN-L									082	02
CITY	r	TH		PACIFIC HY 99E	CN		STOP SIGN	N	WET	TURN	N/A	NW-NE									000	00
N N		11A 45 8 8.65	-122 50 42.25	008100100S00	03	0		N	DAY	PDO	PSNGR CAR		01 DRVR	NON	IE (00 1	Unk UNK UNK		(000	000	00
	# E r r		12.23								02 NONE 9	STRGHT										
	r										N/A PSNGR CAR	NE-SW	01 DRVR	NON	Œ (00 1	Unk UNK UNK		(000	000	00 00
02090	E r r o	N 06/03/2019	16	CLEVELAND ST	INTER	3-LEG	N	N	CLR	O-1 L-TUR	N 01 NONE 0	TURN-L										02
NO RPT	r	MO		PACIFIC HY 99E	CN		TRF SIGNAL	N	DRY	TURN	PRVTE	SW-NW									000	00
N N		4P 45 8 8.66	-122 50 42.25	008100100S00	01	0		N	DAY	INJ	PSNGR CAR		01 DRVR	INJ	В 4	42 1	F OR-		(028,004	000	02

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

22 - 24 of 52 Crash records shown.

	G . D . M												
SER#	S D M P R J S W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE			
	E A U I C O DAY	DIST	FIRST STREET	RD CHAR		INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE	A S	
	ELGNHRTIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT		COLL	OWNER	FROM	PRTC INJ G E LICNS PED	
	D C S V L K LAT	LONG	LRS	LOCTN	(#LANES)			LIGHT		V# TYPE	TO	P# TYPE SVRTY E X RES LOC ERROR ACT EVENT	CAUSE
	#								1	02 NONE 0	STRGHT		
	E r												
	r												
	o r												
										PRVTE	NE-SW	000	00
										PSNGR CAR		01 DRVR INJC 55 M OR-Y 000 000 OR<25	00
03070	N N N # N N 08/13/201	9 16	CLEVELAND ST	INTER	3-LEG	N	N	CLR	O-1 L-TUR	RN 01 NONE 0	TURN-L		02
	E r												
	r												
	o r												
CITY	TU		PACIFIC HY 99E	CN		STOP SIGN	N	DRY	TURN	PRVTE	SW-NW	000	00
N	5P			01	0		N	DAY	INJ	PSNGR CAR		01 DRVR NONE 54 M NONE 028,004 000	02
N	45 8 8.66	-122 50	008100100S00									OR<25	
	#	42.25								02 NONE 0	STRGHT		
	E									02 110112 0	DIRGIII		
	r r												
	0												
	r									PRVTE	NE-SW	000	00
										PSNGR CAR	NE 5W	01 DRVR INJC 58 M OR-Y 000 000	00
												OR<25	
02239	N N N # N N 06/14/201	9 16	CLEVELAND ST	INTER	3-LEG	N	N	CLR	ANGL-OTH	01 NONE 9	STRGHT		02
	E r												
	r												
	o r												
CITY	FR		PACIFIC HY 99E	CN		TRF SIGNAL	N	DRY	TURN	N/A	NE-SW	000	00
N	5P			03	0		N	DAY	PDO	PSNGR CAR		01 DRVR NONE 00 Unk UNK 000 000	00
N	45 8 8.63	-122 50	008100100s00									UNK	
	#	42.26								02 NONE 9	TURN-R		
	E												
	r r												
	0												
	r									N/A	NW-SW	000	00
										PSNGR CAR		01 DRVR NONE 00 Unk UNK 000 000	00
												UNK	

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

25 - 26 of 52 Crash records shown.

	S D M																		
SER#	P RJS	W DATE	CLASS	CITY STREET		INT-TYPE	1				SPCL USE								
INVEST	E A U I C	O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A S	5			
RD DPT	E L G N H	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G I	E LICNS PED			
UNLOC?	D C S V L	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRTY	E X	K RES LOC	ERROR	ACT EVENT	CAUSE
	N N N # N E r r o r	N 01/16/2020	16	CLEVELAND ST	INTER	3-LEG	N	N	RAIN		N 01 NONE 0	STRGHT							02
CITY		TH		PACIFIC HY 99E	CN		TRF SIGNAL	N	WET	TURN	PRVTE	NE-SW						000	00
N N		5P 45 8 8.65	-122 50 42.25	008100100500	01	0		N	DARK	INJ	PSNGR CAR		01 DRVR	NONE	50 M	OR-Y OR<25	000	000	00
	# E r r o r										02 NONE 0	TURN-L							
											PRVTE PSNGR CAR	SW-NW	01 DRVR	INJC	80 F	OR-Y OR<25	028,004	000	00
01342	E r r	N 04/29/2020	16	CLEVELAND ST	INTER	3-LEG	N	N	CLD	ANGL-OTH	01 NONE 0	TURN-L							02
CITY	r	WE		PACIFIC HY 99E	CN		STOP SIGN	N	DRY	TURN	PRVTE	NW-NE						000	00
N N		5P 45 8 8.66	-122 50 42.26	008100100s00	03	0		N	DAY	INJ	PSNGR CAR		01 DRVR	NONE	22 F	OR-Y OR<25	028	000	02
	# E r r o r										02 NONE 0	STRGHT							
	1										PRVTE PSNGR CAR	NE-SW	01 DRVR	INJB	67 M	OR-Y OR<25	000	000	00
	# E r o r										02 NONE 0	STRGHT							
	-										PRVTE PSNGR CAR	NE-SW	02 PSNG	INJB	64 F		000	000	00

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

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27 - 28 of 52 Crash records shown.

S D M																				
SER# P R J	S W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE										
INVEST E A U I	C O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			I	A S					
RD DPT E L G N	H R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	(G E	LICNS	PED			
UNLOC? D C S V		LONG	LRS	LOCTN	(#LANES)				SVRTY	V# TYPE	ТО	P# TYPE	SVRT	'Y I	E X	RES	LOC	ERROR	ACT EVENT	CAUSE
01548 N N N # E	05/10/2020	16	CLEVELAND ST	INTER	3-LEG	N	N	CLR	ANGL-OTH	01 NONE 0	STRGHT									02
r																				
r																				
r																				
NO RPT	SU		PACIFIC HY 99E	CN		STOP SIGN	N	DRY	TURN	PRVTE	NE-SW								000	00
N	11A			03	0		N	DAY	INJ	PSNGR CAR		01 DRVR	NONE	24				000	000	00
N	45 8 8.66	-122 50 42.24	008100100S00													OR<25				
#										01 NONE 0	STRGHT									
E r																				
r																				
o r																				
										PRVTE	NE-SW	00 Dava	T. T	. 04	4 25			000	000 000	00 00
										PSNGR CAR		02 PSNG	INUE	3 24	± 1v1			000	000	00
#										02 NONE 0	TURN-L									
E																				
r																				
o r																				
										PRVTE	NW-NE								000	00
										PRVTE PSNGR CAR	NW-NE	01 DRVR	NONE	E 29				028	000	00 02
 03216	N N 10/03/2020	16	CLEVELAND ST	TNTER	3-1.E.G	N	N	CI'D	ANGL-OTH	PSNGR CAR		01 DRVR	NONE	29		OR-Y OR<25		028		02
03216 N N N #	N N 10/03/2020	16	CLEVELAND ST	INTER	3-LEG	N	N	CLD	ANGL-OTH		NW-NE STRGHT	01 DRVR	NONE	29				028		
	N N 10/03/2020	16	CLEVELAND ST	INTER	3-LEG	N	N	CLD	ANGL-OTH	PSNGR CAR		01 DRVR	NONE	29				028		02
E r r o	N N 10/03/2020	16	CLEVELAND ST	INTER	3-LEG	N	N	CLD	ANGL-OTH	PSNGR CAR		01 DRVR	NONE	E 29				028		02
E r r	N N 10/03/2020	16	CLEVELAND ST PACIFIC HY 99E	INTER	3-LEG	N STOP SIGN	N	CLD	ANGL-OTH	PSNGR CAR		01 DRVR	NONE	29				028		02
E r r o r CITY	SA	16		CN			N	WET	TURN	PSNGR CAR 01 NONE 0 PRVTE	STRGHT					OR<25			000	02
E r r o r					3-LEG 0					PSNGR CAR 01 NONE 0	STRGHT	01 DRVR			3 F			028	000	02
E r r o r CITY	SA 6P		PACIFIC HY 99E	CN			N	WET	TURN	PSNGR CAR 01 NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW				3 F	OR<25			000	02
E r r o r CITY	SA 6P	-122 50	PACIFIC HY 99E	CN			N	WET	TURN	PSNGR CAR 01 NONE 0 PRVTE	STRGHT				3 F	OR<25			000	02
E r r c o r CITY N N # E r	SA 6P	-122 50	PACIFIC HY 99E	CN			N	WET	TURN	PSNGR CAR 01 NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW				3 F	OR<25			000	02
E r r c o r CITY N N #	SA 6P	-122 50	PACIFIC HY 99E	CN			N	WET	TURN	PSNGR CAR 01 NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW				3 F	OR<25			000	02
E r r c c c c c c c c c c c c c c c c c	SA 6P	-122 50	PACIFIC HY 99E	CN			N	WET	TURN	PSNGR CAR 01 NONE 0 PRVTE PSNGR CAR 02 NONE 0	STRGHT NE-SW TURN-L				3 F	OR<25			000	02 02 00 00
E r r c c c c c c c c c c c c c c c c c	SA 6P	-122 50	PACIFIC HY 99E	CN			N	WET	TURN	PSNGR CAR 01 NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW		NONE	58	3 F	OR<25 OR-Y OR<25			000	02
E r r c c c c c c c c c c c c c c c c c	SA 6P	-122 50	PACIFIC HY 99E	CN			N	WET	TURN	PSNGR CAR 01 NONE 0 PRVTE PSNGR CAR 02 NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW TURN-L NW-NE	01 DRVR	NONE	58	3 F	OR<25 OR-Y OR<25		000	000	02 02 00 00
E r r c c c c c c c c c c c c c c c c c	SA 6P	-122 50	PACIFIC HY 99E	CN			N	WET	TURN	PSNGR CAR 01 NONE 0 PRVTE PSNGR CAR 02 NONE 0	STRGHT NE-SW TURN-L	01 DRVR	NONE	58	3 F	OR<25 OR-Y OR<25		000	000	02 02 00 00
Erres	SA 6P	-122 50	PACIFIC HY 99E	CN			N	WET	TURN	PSNGR CAR 01 NONE 0 PRVTE PSNGR CAR 02 NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW TURN-L NW-NE	01 DRVR	NONE	58	3 F	OR<25 OR-Y OR<25		000	000	02 02 00 00
Erres	SA 6P	-122 50	PACIFIC HY 99E	CN			N	WET	TURN	PSNGR CAR 01 NONE 0 PRVTE PSNGR CAR 02 NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW TURN-L NW-NE	01 DRVR	NONE	58	3 F	OR<25 OR-Y OR<25		000	000	02 02 00 00
Erroor	SA 6P	-122 50	PACIFIC HY 99E	CN			N	WET	TURN	PSNGR CAR 01 NONE 0 PRVTE PSNGR CAR 02 NONE 0 PRVTE PSNGR CAR 02 NONE 0	STRGHT NE-SW TURN-L NW-NE TURN-L	01 DRVR	NONE	58	3 F	OR<25 OR-Y OR<25		000	000	02 02 00 00 00
Erroor	SA 6P	-122 50	PACIFIC HY 99E	CN			N	WET	TURN	PSNGR CAR 01 NONE 0 PRVTE PSNGR CAR 02 NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW TURN-L NW-NE	01 DRVR	NONE	Z 35	3 F	OR<25 OR-Y OR<25		000	000	02 02 00 00

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

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	S D M																		
SER#	P R J S	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE								
	E A U I C		DIST	FIRST STREET	RD CHAR	(MEDIAN)		OFFRD		CRASH	TRLR QTY	MOVE			A				
	E L G N H		FROM	SECOND STREET	DIRECT		TRAF-		SURF	COLL	OWNER	FROM		INJ		E LICNS PED			
	D C S V L		LONG	LRS	LOCTN	(#LANES)		DRVWY			V# TYPE	TO	P# TYPE	SVRT	Z E	X RES LOC	ERROR	ACT EVENT	CAUSE
03731	N Y N # N E	N 12/11/2020	16	CLEVELAND ST	INTER	3-LEG	N	N	CLD	S-1TURN	01 NONE 0	STRGHT							33,29
	r r																		
	0																		
STATE	r	FR		PACIFIC HY 99E	CN		TRF SIGNAL	N	DRY	TURN	PRVTE	NE-SW						000	00
N		8P			01	0		N	DARK	INJ	PSNGR CAR		01 DRVR	NONE	31 M	SUSP	051,042	000	33,29
N		45 8 8.65		008100100S00												OR>25	,		52,22
	#		42.26								02 NONE 0	TURN-R							
	E r																		
	r																		
	o r																		
											PRVTE	NE-NW						000	00
											PSNGR CAR		01 DRVR	INJC	51 M	OR-Y OR<25	000	000	00
	#										02 NONE 0	TURN-R				011.25			
	E r																		
	r																		
	o r																		
											PRVTE PSNGR CAR	NE-NW	02 PSNG	TMTC	70 M		000	000 000	00 00
											PSNGR CAR		UZ PSNG	INUC	/ Z M		000	000	00
	#										02 NONE 0	TURN-R							
	E r																		
	r o																		
	r																		
											PRVTE PSNGR CAR	NE-NW	03 PSNG	TNITC	65 F		000	000 000	00 00
											I BNOK CAR		03 1510	INOC	05 1		000	000	00
	# E										02 NONE 0	TURN-R							
	r																		
	r o																		
	r										DDIWE	NET NEL						0.00	0.0
											PRVTE PSNGR CAR	NE-NW	04 PSNG	INJC	75 F		000	000 000	00 00
01411	N N N #	04/04/2016	16	PACIFIC HY 99E	ALLEY		N	N	CLR	S-1STOP	01 NONE 0	STRGHT						087	29
	E r																		
	r o																		
a	r	140		ar nrm	0	(270)												000 007	0.0
CITY		MO		CLEVELAND ST	SW	(NONE)	UNKNOWN	N	DRY	REAR	PRVTE	NE-SW						000 087	00
N		1P	100 50	000100100000	04	(04)		N	DAY	INJ	PSNGR CAR		01 DRVR	NONE	43 F	OR-Y OR<25	026	000	29
N		45 8 6.53	-122 50 44.25	008100100S00		(04)										UK~Z5			

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

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	S D M																			
	P R J S W DAT	Έ	CLASS	CITY STREET		INT-TYPE					SPCL USE									
	E A U I C O DAY		DIST	FIRST STREET	RD CHAR		INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A	S				
RD DPT	E L G N H R TIM	ΙE	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ		E LICNS	PED			
UNLOC?	D C S V L K LAT	1	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRTY	ζE	X RES	LOC	ERROR	ACT EVENT	CAUSE
	# E				,					,	02 NONE 0	STOP							'	,
	r																			
	r																			
	o r																			
											PRVTE	NE-SW							012	00
											PSNGR CAR		01 DRVR	INJC	30 M	OR-Y OR<25		000	000	00
02216	N N N # N N 08/	05 /2016	16	DAGTETO IIV OOF	3 T T 137		NT.	NT.	OI D	а 1 ашор	01 NONE 0	OMD GITM				UR<25				07
03316	N N N # N N U8/ E	05/2016	16	PACIFIC HY 99E	ALLEY		N	N	CLR	S-1STOP	01 NONE 0	STRGHT								0 /
	r																			
	r o																			
CITY	r FR			CLEVELAND ST	SW	(NONE)	UNKNOWN	N	DRY	REAR	PRVTE	SW-NE							000	00
				CHEVERNIND SI		(NONE)	OMMOWIN					SW-INE								
N	11P		-122 50	000100100000	05	(04)		N	DARK	INJ	PSNGR CAR		01 DRVR	INJB	20 M			043,026	000	07
N	45	8 6.95	43.85	008100100S00		(04)										OR<25				
	# -										02 NONE 0	STOP								
	E r																			
	r																			
	o r																			
												_							0.1.0	
											PRVTE	SW-NE							012	00
											PSNGR CAR	SW-NE	01 DRVR	NONE	54 M			000	000	00
0.25.25	27 27 11 27 27 00	100 (001 6	16						gr. D	g 1gmpp	PSNGR CAR		01 DRVR	NONE	54 M	OR-Y		000		00
03737	N N N # N N 08/	29/2016	16	PACIFIC HY 99E	ALLEY		N	N	CLR	S-1STOP		SW-NE STRGHT	01 DRVR	NONE	54 M			000		
03737	E	29/2016	16	PACIFIC HY 99E	ALLEY		N	N	CLR	S-1STOP	PSNGR CAR		01 DRVR	NONE	54 M			000		00
03737	E	29/2016	16	PACIFIC HY 99E	ALLEY		N	N	CLR	S-1STOP	PSNGR CAR		01 DRVR	NONE	54 M			000		00
	E r r o r	29/2016	16			(11017)					PSNGR CAR 01 NONE 1	STRGHT	01 DRVR	NONE	54 M			000	000	00
03737 CITY	E r r o	29/2016	16	PACIFIC HY 99E CLEVELAND ST	ALLEY	(NONE)	N	N	CLR	S-1STOP	PSNGR CAR		01 DRVR	NONE	54 M			000		00
CITY	E r r o r MO			CLEVELAND ST							PSNGR CAR 01 NONE 1	STRGHT	01 DRVR			OR<25		000	000	00
CITY	E r r o r MO		-122 50		SW	(NONE)		N	DRY	REAR	PSNGR CAR 01 NONE 1 PRVTE	STRGHT				OR<25			000	00
CITY	E r r o r MO			CLEVELAND ST	SW			N	DRY	REAR	PSNGR CAR 01 NONE 1 PRVTE	STRGHT				OR<25			000	00
CITY	E r r o r MO		-122 50	CLEVELAND ST	SW			N	DRY	REAR	PSNGR CAR 01 NONE 1 PRVTE SEMI TOW	STRGHT NE-SW				OR<25			000	00
CITY	E r r o r MO		-122 50	CLEVELAND ST	SW			N	DRY	REAR	PSNGR CAR 01 NONE 1 PRVTE SEMI TOW	STRGHT NE-SW				OR<25			000	00
CITY	E r r 0 MO 4P 45 # E r r 0		-122 50	CLEVELAND ST	SW			N	DRY	REAR	PSNGR CAR 01 NONE 1 PRVTE SEMI TOW	STRGHT NE-SW				OR<25			000	00
CITY	E r r o mo 4P 45		-122 50	CLEVELAND ST	SW			N	DRY	REAR	PSNGR CAR 01 NONE 1 PRVTE SEMI TOW	STRGHT NE-SW				OR<25			000	00
CITY	E r r 0 MO 4P 45 # E r r 0		-122 50	CLEVELAND ST	SW			N	DRY	REAR	PSNGR CAR 01 NONE 1 PRVTE SEMI TOW 02 NONE 0	STRGHT NE-SW		NONE	22 M	OR<25 OR-Y OR<25			000	00 07 00 07
CITY	E r r 0 MO 4P 45 # E r r 0		-122 50	CLEVELAND ST	SW			N	DRY	REAR	PSNGR CAR 01 NONE 1 PRVTE SEMI TOW 02 NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW STOP	01 DRVR	NONE	22 M	OR<25 OR-Y OR<25		043,026	000 000 000	00 07 00 07
CITY	E r r 0 MO 4P 45 # E r r 0		-122 50	CLEVELAND ST	SW			N	DRY	REAR	PSNGR CAR 01 NONE 1 PRVTE SEMI TOW 02 NONE 0	STRGHT NE-SW	01 DRVR	NONE	22 M	OR<25 OR-Y OR<25		043,026	000 000 000	00 07 00 07
CITY	E r r 0 MO 4P 45 # E r r 0		-122 50	CLEVELAND ST	SW			N	DRY	REAR	PSNGR CAR 01 NONE 1 PRVTE SEMI TOW 02 NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW STOP	01 DRVR	NONE	22 M	OR<25 OR-Y OR<25		043,026	000 000 000	00 07 00 07
CITY	E r r 0 MO 4P 45 # E r r 0		-122 50	CLEVELAND ST	SW			N	DRY	REAR	PSNGR CAR 01 NONE 1 PRVTE SEMI TOW 02 NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW STOP	01 DRVR	NONE	22 M	OR<25 OR-Y OR<25		043,026	000 000 000	00 07 00 07
CITY	E r r 0 r MO 4P 45 # E r r 0 r		-122 50	CLEVELAND ST	SW			N	DRY	REAR	PSNGR CAR 01 NONE 1 PRVTE SEMI TOW 02 NONE 0 PRVTE PSNGR CAR 02 NONE 0	STRGHT NE-SW STOP	01 DRVR	NONE	22 M	OR<25 OR-Y OR<25		043,026	000 000 000	00 07 00 07
CITY	E r r 0 r MO 4P 45 # E r r 0 r		-122 50	CLEVELAND ST	SW			N	DRY	REAR	PSNGR CAR 01 NONE 1 PRVTE SEMI TOW 02 NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW STOP	01 DRVR	NONE	22 M	OR<25 OR-Y OR<25 OR-Y OR<25		043,026	000 000 000	00 07 00 07

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

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	a																			
SER#	S D M P R J S	M DATE	CLASS	CITY STREET		INT-TYPE	2				SPCL USE									
	r E A U I C		DIST	FIRST STREET	RD CHAR) INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			Δ	. S				
	r e l g n h :		FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT		COLL	OWNER	FROM	PRTC	TNJT		E LIC	NS PED			
	PCSVL		LONG	LRS	LOCTN	(#LANES)			LIGHT		V# TYPE	TO				X RES		ERROR	ACT EVENT	CAUSE
	# E r r										02 NONE 0	STOP						-		
	r										PRVTE PSNGR CAR	NE-SW	03 PSNG	INJC	14	М		000	012 000	00
02529	N N N # E r r o	06/17/2016	16	PACIFIC HY 99E	ALLEY		N	N	CLR	S-1STOP	01 NONE 9	STRGHT								29
NONE	-	FR		CLEVELAND ST	SW	(NONE)	UNKNOWN	N	DRY	REAR	N/A	NE-SW							000	00
N N		9P 45 7 57.94	-122 50 51.99	008100100s00	03	(02)		N	DLIT	PDO	PSNGR CAR		01 DRVR	NONE	00	Unk UNK UNK		000	000	00
	# E r r o r										02 NONE 9	TURN-L NE-SE							019	00
											PSNGR CAR	NE-SE	01 DRVR	NONE	00	Unk UNK UNK		000	000	00
01707	N N N # N : E r r o	N 05/03/2017	16	PACIFIC HY 99E	ALLEY		N	N	CLR	ANGL-OTH	01 NONE 0	STRGHT							087	02
CITY		WE		CLEVELAND ST	SW	(NONE)	UNKNOWN	N	DRY	TURN	PRVTE	SW-NE							000 087	00
N N		4P 45 8 3.53	-122 50 46.98	008100100S00	05	(04)		N	DAY	INJ	PSNGR CAR		01 DRVR	INJC	37	M OR- OR>		000	000	00
	# E r o r		· · · · ·								02 NONE 0	TURN-L								
											PRVTE PSNGR CAR	SE-SW	01 DRVR	INJC	50	F OR-		028	018 087 000	00 02

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

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S	D M																				
	RЈS	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE										
INVEST E	A U I C	O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE				A	S				
RD DPT E	L G N H	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	IN	J	G	E LICI	NS PE	D		
UNLOC? D	C S V L	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SV	RTY	E :	X RES	LO	C ERROR	ACT EVENT	CAUSE
01877 N		N 05/13/2017	16	PACIFIC HY 99E	ALLEY		N	N	RAIN	ANGL-OTH	01 NONE 0	STRGHT									02
	E r																				
	r																				
	o r																				
CITY		SA		CLEVELAND ST	SW	(NONE)	UNKNOWN	N	WET	TURN	PRVTE	NE-SW								000	00
N		3P			03			N	DAY	INJ	PSNGR CAR		01 DRVR	NO	NE	23 M	OR-	Y	000	000	00
N		45 7 58.8	-122 50 51.23	008100100S00		(04)											OR<2	25			
	#		51.25								01 NONE 0	STRGHT									
	E r																				
	r																				
	o r																				
	_										PRVTE	NE-SW								000	00
											PSNGR CAR		02 PSNG	IN	JB	24 M			000	000	00
	#										01 NONE 0	STRGHT									
	Ë										or none	BIRGIII									
	r r																				
	0																				
	r										PRVTE	NE-SW								000	00
											PSNGR CAR		03 PSNG	IN	JC	23 M			000	000	00
											0.0 170177										
	# E										02 NONE 0	TURN-R									
	r																				
	r o																				
	r										PRVTE	NIII CIII								018	0.0
											PSNGR CAR	NW-SW	01 DRVR	IN	JB	83 M	OR-S	Y	028	000	00 02
																	OR<2				
03032 N		07/26/2017	16	PACIFIC HY 99E	ALLEY		N	N	CLR	S-1STOP	01 NONE 0	STRGHT									27,29
	E r																				
	r																				
	o r																				
CITY		WE		CLEVELAND ST	SW	(NONE)	UNKNOWN	N	DRY	REAR	PRVTE	NE-SW								000	00
N		3P			04			N	DAY	INJ	PSNGR CAR		01 DRVR	NO	NE	59 M	OR-	ľ	016,026	038	27,29
N		45 8 7.37		008100100S00		(04)											OR<2				
	#		43.45								02 NONE 0	STOP									
	Ë										02 110112 0	5101									
	r r																				
	0																				
	r										PRVTE	NE-SW								012	00
											PSNGR CAR	2	01 DRVR	IN	JC	54 F	OR-S	Y	009	000	00
																	OR<2	25			

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

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	S D M																					
SER#	P RJSV	V DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE											
INVEST	E A U I C (D DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE				A	S					
RD DPT	E L G N H I	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	IN	J	G	E I	LICNS	PED			
UNLOC?	DCSVL	LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVI	RTY	E	X F	RES	LOC	ERROR	ACT EVENT	CAUSE
03240	N N N # N P E r r o	N 08/10/2017	16	PACIFIC HY 99E	ALLEY		N	N	CLR	S-1TURN	01 NONE 0	STRGHT										29
STATE		TH		CLEVELAND ST	SW	(NONE)	UNKNOWN	N	DRY	REAR	PRVTE	SW-NE									000	00
N N		3P 45 7 57.94	-122 50 51.99	008100100s00	04	(02)		N	DAY	INJ	PSNGR CAR		01 DRVR	IN	JB	62		OR-Y OR<25		042	000	29
	# E r o r										02 NONE 0	TURN-R										
											PRVTE PSNGR CAR	SW-SE	01 DRVR	IN	JB	68		OR-Y OR<25		000	019 000	00
00188	N N N # N I E r c	N 01/15/2019	16	PACIFIC HY 99E	ALLEY		N	N	CLR	S-1STOP	01 NONE 0	STRGHT										27,29
CITY	1	TU		CLEVELAND ST	SW	(NONE)	UNKNOWN	N	DRY	REAR	PRVTE	NE-SW									000	00
N N		6A 45 7 58.38	-122 50 51.6	008100100S00	03	(04)		N	DLIT	INJ	PSNGR CAR		01 DRVR	IN	JC	81		OR-Y OR<25		026,016	038	29,27
	# E r o r										02 NONE 0	STOP										
	1										PRVTE PSNGR CAR	NE-SW	01 DRVR	IN	JC	37		OR-Y OR<25		000	012 000	00 00
00728	N N N # N I E r r o	02/26/2019	16	PACIFIC HY 99E	ALLEY		N	N	SNOW	S-1STOP	01 UNKN 0	STRGHT										29
CITY	_	TU		CLEVELAND ST	SW	(NONE)	UNKNOWN	N	SNO	REAR	UNKN	NE-SW									000	00
N N		8P 45 8 7.37	-122 50 43.46	008100100500	04	(04)		N	DLIT	INJ	PSNGR CAR		01 DRVR	NOI	NE	00		JNK JNK		026	000	29

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

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	S D M																		
SER#	P R J S W DATE	CLASS	CITY STREET		INT-TYP	E				SPCL USE									
INVEST	E A U I C O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN) INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A	S				
RD DPT	E L G N H R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICNS	PED			
UNLOC?	D C S V L K LAT	LONG	LRS	LOCTN	(#LANES) CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRT	Y E	X RES	LOC	ERROR	ACT EVENT	CAUSE
	# E r r									02 NONE 0	STOP								
	r									PRVTE	NE-SW							012	00
										PSNGR CAR		01 DRVR	INJC	23 F	OR-Y OR<25		000	000	00
04613	N N N # N N 11/18/2 E r r o	019 16	PACIFIC HY 99E	ALLEY		N	N	FOG	S-1TURN	01 NONE 0	STRGHT								07
CITY	MO		CLEVELAND ST	SW	(NONE)	UNKNOWN	N	WET	REAR	PRVTE	SW-NE							000	00
N N	9A 45 8 5.	27 -122 50	008100100s00	06	(04)		N	DAY	INJ	PSNGR CAR		01 DRVR	INJC	21 F	OR-Y OR<25		043,042	000	07
	# E r r	45.46								02 NONE 0	TURN-R								
	r									PRVTE	SW-SE							019	00
										SEMI TOW		01 DRVR	NONE	64 M	OR-Y OR<25		000	000	00
03161	N N N # N N 08/20/2 E r r o	019 16	PACIFIC HY 99E	ALLEY		N	N	CLR	S-1TURN	01 NONE 0	STRGHT								07
CITY	TU		CLEVELAND ST	SW	(NONE)	UNKNOWN	N	DRY	REAR	PRVTE	SW-NE							000	00
N N	6A 45 7 57	.96 -122 50	008100100s00	04	(02)		N	DAWN	INJ	PSNGR CAR		01 DRVR	INJC	23 F	NONE OR<25		043,042	000	07
	# E r o r	51.99								02 NONE 0	TURN-R								
										PRVTE PSNGR CAR	SW-SE	01 DRVR	INJC	50 F	OR-Y		000	019 000	00

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PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

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S DI	M																				
SER# P R	J S W DATE	CLASS	CITY STREET		INT-TYPE]				SPCL USE											
INVEST E A U	I C O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE				A	S					
RD DPT E L G I	N H R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	J	G	E LIC	NS PEI)			
UNLOC? D C S	V L K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVF	RTY	E :	X RES	LO	C ERRO	R	ACT EVENT	CAUSE
04587 N N N	# N N 11/16/2019 E	9 16	PACIFIC HY 99E	ALLEY		N	N	CLD	S-1TURN	01 NONE 0	STRGHT										07
	r																				
	r o																				
1	r																				
CITY	SA		CLEVELAND ST	SW	(NONE)	UNKNOWN	N	DRY	REAR	PRVTE	NE-SW									000	00
N	10A			03			N	DAY	INJ	PSNGR CAR		01 DRVR	NON	NE	56 M			042		000	07
N	45 8 3.98	-122 50 46.62	008100100S00		(04)											OR>	25				
=	#	40.02								02 NONE 0	TURN-R										
	E r																				
	r																				
	o r																				
-	_									PRVTE	NE-NW									019	00
										PSNGR CAR		01 DRVR	INJ	JC	28 F			000		000	00
:	#									02 NONE 0	TURN-R					OR<	25				
	E																				
	r r																				
	0																				
1	r									PRVTE	NE-NW									019	00
										PSNGR CAR		02 PSNG	INJ	JC	26 M			000		000	00
	ш									0.0 NONE 0	minn n										
]	# E									02 NONE 0	TURN-R										
	r r																				
	0																				
ī	r									PRVTE	NE-NW									019	00
										PSNGR CAR	112 1111	03 PSNG	INJ	JC	06 F			000		000	00
03956 N N N		5 16	PACIFIC HY 99E	STRGHT		N	N	CLR	S-1STOP	01 NONE 0	STRGHT										07
]	E r																				
	r																				
	o r																				
CITY	SU		CLEVELAND ST	SW	(NONE)	UNKNOWN	N	DRY	REAR	PRVTE	NE-SW									000	00
N	12P			04			Y	DAY	INJ	PSNGR CAR		01 DRVR	NON	NE	51 F	OR-	Y	043,	026	000	07
N	45 8 7.37	-122 50	008100100s00		(04)											OR<	25				
;	#	43.45								02 NONE 0	STOP										
	E																				
]	r r																				
	0																				
]	r									PRVTE	NE-SW									012	00
										PSNGR CAR		01 DRVR	INJ	JC	36 F			000		000	00
																N-R	ES				

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URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

43 - 45 of 52 Crash records shown.

	S D M																			
	P R J S	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
	EAUIC		DIST	FIRST STREET	RD CHAR	(MEDIAN)		OFFRD	WTHR	CRASH	TRLR QTY	MOVE			А	S				
RD DPT	ELGNH	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ		E LICN	IS PED			
UNLOC?	D C S V L	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRTY	E	X RES	LOC	ERROR	ACT EVENT	CAUSE
	#										02 NONE 0	STOP							,	
	r																			
	r																			
	o r																			
											PRVTE	NE-SW							012	00
											PSNGR CAR		02 PSNG	INJC	14	F		000	000	00
	#										02 NONE 0	STOP								
	E											2								
	r																			
	0																			
	r										PRVTE	NE-SW							012	00
											PSNGR CAR	NE-2W	03 PSNG	INJA	02	F		000	000	00
01353	N N N #	03/30/2016	16	PACIFIC HY 99E	STRGHT		N	N	CLR	S-1TURN	01 NONE 9	U-TURN								08
	E r																			
	r																			
	o r																			
STATE	ī	WE		CLEVELAND ST	SW	(NONE)	UNKNOWN	N	DRY	TURN	N/A	SW-SW							000	00
N		10P			05			N	DLIT	PDO	PSNGR CAR		01 DRVR	NONE	0.0	IImle IINIZ		000	000	00
N N		45 8 .95	-122 50	008100100S00	05	(04)		IN	דדת	PDO	PSNGR CAR		UI DRVR	NONE	00	UNK		000	000	00
			49.31			(,										-				
	# E										02 NONE 9	STRGHT								
	r																			
	r																			
	r																			
											N/A	SW-NE	01 DDIM	NONE	0.0	TTl- TINITZ		0.00	000	00
											PSNGR CAR		01 DRVR	NONE	00	UNK UNK		000	000	00
04802	V N N # N	N 11/08/2017	16	PACIFIC HY 99E	STRGHT		N	N	PATN	Q_QTPQHT	01 NONE 9	STRGHT				02121				32,30,27
01002	E E	1 11/00/2017	10	TACIFIC III 99E	BIRGIII		14	14	IVALIN	5 51KGIII	OI NONE	BIRGIII								32,30,21
	r r																			
	0																			
CTTV	r	WE		CLEVELAND ST	CM	(NONE)	UNKNOWN	N	WET	REAR	NI / 7\	NE-SW							000	00
CITY		WE		CLEVELAND SI	SW	(NONE)	UNKNOWN	IN	MFI	KLAK	N/A	NE-2M							000	00
N		9P			04			N	DLIT	PDO	PSNGR CAR		01 DRVR	NONE	00			000	000	00
N		45 8 4.39	-122 50 46.21	008100100S00		(04)										UNK				
	#		10.21								02 NONE 9	STRGHT								
	E																			
	r																			
	0																			
	r										N/A	NE-SW							000	00
											PSNGR CAR		01 DRVR	NONE	00			000	000	00
																UNK				

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

46 - 47 of 52 Crash records shown.

	S D M																				
SER#	P RJS	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE										
INVEST	E A U I C	O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE				A 5	S				
RD DPT	E L G N H	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	IN	J	G I	E LICN	S PED			
UNLOC?	D C S V L	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVI	RTY	E 2	X RES	LOC	ERROR	ACT EVENT	CAUSE
00045	N N N # N	N 01/05/2018	16	PACIFIC HY 99E	STRGHT		N	N	CLD	S-STRGHT	01 NONE 0	STRGHT									27,29
	r r o r																				
STATE		FR		CLEVELAND ST	SW	(NONE)	UNKNOWN	N	DRY	REAR	PRVTE	NE-SW								000	00
N N		5P 45 8 7.8	-122 50 43.06	008100100s00	03	(04)		N	DARK	INJ	PSNGR CAR		01 DRVR	NOI	NE :	28 M	OR-Y		016,042	038	27,29
	# E		43.00								02 NONE 0	STOP									
	r r o r																				
											PRVTE PSNGR CAR	NE-SW	01 DRVR	IN	JC !	53 F	OR-Y		000	011 000	00
01225	E r r o	N 04/11/2018	16	PACIFIC HY 99E	STRGHT		N	Y	RAIN	FIX OBJ	01 NONE 0	STRGHT								040,132	40,27
STATE	r	WE		CLEVELAND ST	SW	(NONE)	UNKNOWN	N	WET	FIX	PRVTE	SW-NE								000 040	00
Y N		8P 45 8 5.27	-122 50 45.44	008100100s00	01	(04)		N	DLIT	INJ	PSNGR CAR		01 DRVR	IN	JC :	20 F	SUSF OR<2		039,016,081	038 132	40,27
	# E r o										02 NONE 0	PRKD-P									
	r										PRVTE PSNGR CAR	UN-UN								009	00
	# E r r										03 NONE 0	PRKD-P									
	r										PRVTE PSNGR CAR	UN-UN								009	00

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY

PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

48 - 49 of 52 Crash records shown.

	S D M																			
SER#	P R J S	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE									
INVEST	E A U I C	O DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A	S				
RD DPT	E L G N H	R TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E LICN	S PED			
UNLOC?	D C S V L	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRTY	E	X RES	LOC	ERROR	ACT EVENT	CAUSE
01293	N N N # E r r o r	04/16/2018	16	PACIFIC HY 99E	STRGHT		N	И	RAIN	S-STRGHT	01 NONE 9	STRGHT								29
NO RPT		MO		CLEVELAND ST	SW	(NONE)	UNKNOWN	N	WET	REAR	N/A	N -S							000	00
N N		2P 45 8 .53	-122 50 49.69	008100100S00	03	(04)		N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00 1	Unk UNK UNK		000	000	00
	# E r r o r										02 NONE 9	STRGHT								
	-										N/A SEMI TOW	N -S	01 DRVR	NONE	00 1	Unk UNK UNK		000	000	00
01412	N N N # E r r o r	04/15/2019	16	PACIFIC HY 99E	STRGHT		N	N	CLR	S-1STOP	01 NONE 0	STRGHT								29
NO RPT	1	MO		CLEVELAND ST	SW	(NONE)	UNKNOWN	N	DRY	REAR	PRVTE	SW-NE							000	00
N N		6P 45 8 7.38	-122 50 43.45	008100100S00	05	(04)		N	DAY	INJ	PSNGR CAR		01 DRVR	NONE	37	F OR-Y OR<2		026	000	29
	# E r o r										02 NONE 0	STOP								
	1										PRVTE PSNGR CAR	SW-NE	01 DRVR	INJC	64 I	M OR-Y OR<2		000	011 000	00
01811	N N N # E r r o r	06/14/2020	16	PACIFIC HY 99E	STRGHT		N	N	RAIN	PED	01 NONE 0	STRGHT								18
NONE	Ţ	SU		CLEVELAND ST	SW	(NONE)	UNKNOWN	N	WET	PED	PRVTE	NE-SW							000	00
N N		1A 45 8 8.22	-122 50 42.67	008100100S00	00	(04)		N	DLIT	INJ	PSNGR CAR		01 DRVR	NONE	46	F OR-Y OR<2		000	000	00

URBAN NON-SYSTEM CRASH LISTING

CITY OF WOODBURN, MARION COUNTY PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

50 - 52 of 52 Crash records shown.

	S D M																		
SER#	P RJS	W DATE	CLASS	CITY STREET		INT-TYPE					SPCL USE								
	' E A U I C		DIST	FIRST STREET	RD CHAR		INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE			A S				
	ELGNH		FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT		COLL	OWNER	FROM	PRTC	INJ	G E LICNS	S PED			
UNLOC?	DCSVL	K LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRTY	E X RES	LOC	ERROR	ACT EVENT	CAUSE
	# E r o r											- STRGHT	01 PED	INIC	00 Unk	ROAD	057	000	18
													01 110	11100	oo om	ROTE	037	000	10
00500		00/00/000	1.6	D. G. T. T. C.							01 270277 0	SE NW						0.40 1.01	1.6
02598	N N N # E r r o r	08/28/2020	16	PACIFIC HY 99E	STRGHT		N	Y	CLR	FIX OBJ	01 NONE 9	STRGHT						040,121	16
CITY		FR		CLEVELAND ST	SW	(NONE)	UNKNOWN	N	DRY	FIX	N/A	SW-NE						000	00
Y N		9A 45 8 2.68		008100100S00	01	(04)		N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00 Unk UNK UNK		000	000	00
	# E r r		47.77								02 NONE 9	PRKD-P							
	r										N/A PSNGR CAR	UN-UN						009	00
00071	N N N # E r r	01/05/2019	17	CLEVELAND ST	STRGHT		Y	N	CLR	S-STRGHT	01 NONE 9	STRGHT							29
NONE	r	SA	289	PACIFIC HY 99E	NW	(NONE)	UNKNOWN	N	DRY	REAR	N/A	NW-SE						000	00
N N		10A 45 8 10.17	-122 50		08	(02)		N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00 Unk UNK UNK		000	000	00
	# E r r o r		46.14								02 NONE 9	STRGHT							
	_										N/A PSNGR CAR	NW-SE	01 DRVR	NONE	00 Unk UNK UNK		000	000	00

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

PACIFIC HY 99E and CLEVELAND ST, City of Woodburn, Marion County, 01/01/2016 to 12/31/2020

		MAJOR	MODERATE	MINOR	PROP					
	FATAL	INJURY	INJURY	INJURY	DAMAGE	TOTAL	PEOPLE	MAJOR	MODERATE	MINOR
COLLISION TYPE	CRASHES	CRASHES	CRASHES	CRASHES	ONLY	CRASHES	KILLED	INJURIES	INJURIES	INJURIES
YEAR: 2020										
FIXED / OTHER OBJECT	0	0	0	0	1	1	0	0	0	0
PEDESTRIAN	0	0	0	1	0	1	0	0	0	1
TURNING MOVEMENTS	0	0	2	3	0	5	0	0	3	7
2020 TOTAL	0	0	2	4	1	7	0	0	3	8
YEAR: 2019										
REAR-END	0	0	1	6	1	8	0	0	1	10
TURNING MOVEMENTS	0	0	1	2	1	4	0	0	1	3
2019 TOTAL	0	0	2	8	2	12	0	0	2	13
YEAR: 2018										
FIXED / OTHER OBJECT	0	0	0	1	0	1	0	0	0	1
REAR-END	0	0	0	1	1	2	0	0	0	1
TURNING MOVEMENTS	0	0	0	2	4	6	0	0	0	2
2018 TOTAL	0	0	0	4	5	9	0	0	0	4
YEAR: 2017										
REAR-END	0	0	1	2	2	5	0	0	2	2
TURNING MOVEMENTS	0	0	2	3	2	7	0	0	3	6
2017 TOTAL	0	0	3	5	4	12	0	0	5	8
YEAR: 2016										
REAR-END	0	1	2	2	1	6	0	1	2	7
TURNING MOVEMENTS	0	0	1	2	3	6	0	0	1	4
2016 TOTAL	0	1	3	4	4	12	0	1	3	11
FINAL TOTAL	0	1	10	25	16	52	0	1	13	44

Preliminary Traffic Signal Warrant Analysis



1

Project: Young Street
Date: 3/16/2023

Scenario: 2025 Buildout PM Peak Hour

Major Street: Young Street Minor Street: Bryan Street

Number of Lanes: 1 Number of Lanes:

PM Peak 669 PM Peak 13 Rights
Hour Volumes: Hour Volumes: 0% RT Discount

Warrant Used:

X 100 percent of standard warrants used
70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Numbe	r of Lanes for Moving	ADT on	Major St.	ADT on Minor St.					
Traffic	on Each Approach:	(total of both	approaches)	(higher-volun	ne approach)				
WARRANT 1, COND	DITION A	100%	70%	100%	70%				
<u>Major St.</u>	Minor St.	<u>Warrants</u>	<u>Warrants</u>	<u>Warrants</u>	<u>Warrants</u>				
1	1	8,850	6,200	2,650	1,850				
2 or more	1	10,600	7,400	2,650	1,850				
2 or more	2 or more	10,600	7,400	3,550	2,500				
1	2 or more	8,850	6,200	3,550	2,500				
WARRANT 1, COND	DITION B								
1	1	13,300	9,300	1,350	950				
2 or more	1	15,900	11,100	1,350	950				
2 or more	2 or more	15,900	11,100	1,750	1,250				
1	2 or more	13,300	9,300	1,750	1,250				

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

Is Signal Warrant Approach Volumes Minimum Volumes Met? Warrant 1 Condition A: Minimum Vehicular Volume 8,850 Major Street 6,690 Minor Street* 180 2,650 No Condition B: Interruption of Continuous Traffic Major Street 6,690 13,300 Minor Street* 180 1,350 No Combination Warrant Major Street 6,690 10,640 Minor Street* 180 2,120 No

^{*} Minor street right-turning traffic volumes reduced by 00%.

Preliminary Traffic Signal Warrant Analysis



Project: Young Street TIS
Date: 3/16/2023

Scenario: 2025 Buildout PM Peak Hour

Major Street: OR-99E Minor Street: Cleveland Street

Number of Lanes: 2 Number of Lanes: 1

AM Peak
Hour Volumes:

AM Peak
Total
AM Peak
Hour Volumes:

Hour Volumes:

Hour Volumes: Hour Volumes: 100% RT Discount

Warrant Used:

X 100 percent of standard warrants used
70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Numbe	r of Lanes for Moving	ADT on	Major St.	ADT on	Minor St.
Traffic	on Each Approach:	(total of both	approaches)	(higher-volur	ne approach)
WARRANT 1, CONE	DITION A	100%	70%	100%	70%
<u>Major St.</u>	Minor St.	<u>Warrants</u>	<u>Warrants</u>	<u>Warrants</u>	<u>Warrants</u>
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONE	DITION B				
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

Is Signal Warrant Approach Volumes Minimum Volumes Met? Warrant 1 Condition A: Minimum Vehicular Volume 17,000 10,600 Major Street Minor Street* 820 2,650 No Condition B: Interruption of Continuous Traffic Major Street 17,000 15,900 Minor Street* 820 1,350 No Combination Warrant Major Street 17,000 12,720 Minor Street* 820 2,120 No

^{*} Minor street right-turning traffic volumes reduced by 100%.

Appendix D - Operations

Synchro Reports

SimTraffic Reports



	۶	→	•	•	•	4	1	†	~	/	Ţ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	₽			स्	7	*	†		*	†	
Traffic Volume (veh/h)	66	133	59	40	114	195	36	575	22	145	436	36
Future Volume (veh/h)	66	133	59	40	114	195	36	575	22	145	436	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1811	1811	1811	1682	1682	1682	1641	1641	1641
Adj Flow Rate, veh/h	80	162	72	49	139	238	44	701	27	177	532	44
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	4	4	4	6	6	6	5	5	5	8	8	8
Cap, veh/h	311	329	146	163	367	418	420	1023	39	411	1135	94
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.05	0.33	0.33	0.11	0.39	0.39
Sat Flow, veh/h	990	1207	537	237	1348	1535	1602	3137	121	1563	2916	241
Grp Volume(v), veh/h	80	0	234	188	0	238	44	357	371	177	284	292
Grp Sat Flow(s),veh/h/ln	990	0	1744	1585	0	1535	1602	1598	1660	1563	1559	1597
Q Serve(g_s), s	3.4	0.0	5.2	0.1	0.0	6.2	0.8	9.0	9.0	3.3	6.3	6.3
Cycle Q Clear(g_c), s	8.8	0.0	5.2	5.3	0.0	6.2	0.8	9.0	9.0	3.3	6.3	6.3
Prop In Lane	1.00	^	0.31	0.26	0	1.00	1.00	F04	0.07	1.00	007	0.15
Lane Grp Cap(c), veh/h	311	0	475	530	0	418	420	521	541	411	607	622
V/C Ratio(X)	0.26	0.00	0.49	0.35	0.00	0.57	0.10	0.69	0.69	0.43	0.47	0.47
Avail Cap(c_a), veh/h	758 1.00	1.00	1262 1.00	1232 1.00	1.00	1111	570	1777	1847	966 1.00	2239 1.00	2295
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.00	1.00	1.00 1.00	1.00 1.00	1.00	1.00	1.00	1.00
Upstream Filter(I) Uniform Delay (d), s/veh	17.9	0.00	14.1	13.7	0.00	14.5	9.5	13.5	13.5	9.4	10.6	10.6
Incr Delay (d2), s/veh	0.4	0.0	0.8	0.4	0.0	1.2	0.1	1.6	1.5	0.7	0.6	0.6
Initial Q Delay(d3),s/veh	0.4	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.9	1.5	0.0	2.0	0.0	2.4	2.5	0.0	1.4	1.5
Unsig. Movement Delay, s/veh		0.0	1.0	1.0	0.0	2.0	0.2	2.4	2.0	0.7	1.7	1.0
LnGrp Delay(d),s/veh	18.3	0.0	14.9	14.1	0.0	15.7	9.6	15.1	15.1	10.1	11.1	11.1
LnGrp LOS	В	Α	14.5 B	В	Α	В	3.0 A	В	В	В	В	В
Approach Vol, veh/h		314			426			772			753	
Approach Delay, s/veh		15.8			15.0			14.8			10.9	
Approach LOS		В			В			В			В	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.6	19.6		17.1	6.7	22.5		17.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	21.5	51.5		33.5	6.5	66.5		33.5				
Max Q Clear Time (g_c+l1), s	5.3	11.0		10.8	2.8	8.3		8.2				
Green Ext Time (p_c), s	0.4	4.1		1.9	0.0	3.2		2.1				
Intersection Summary												
HCM 6th Ctrl Delay			13.7									
HCM 6th LOS			В									

Intersection							
Int Delay, s/veh	2.9						
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
	CDL Š	ZDK	INDL			SDK	
Lane Configurations Traffic Vol., veh/h			26	414	↑ ↑	71	
,	97	64 64	26	554 554	475		
Future Vol, veh/h	97		26	554	475	71	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	165	0	-	-	-	-	
Veh in Median Storage,		-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	0	0	2	2	2	2	
Mvmt Flow	105	70	28	602	516	77	
Major/Minor N	1inor2	N	//ajor1	N	Major2		į
Conflicting Flow All	912	297	593	0	- viajoiz	0	
	555	291	595	-		-	
Stage 1							
Stage 2	357	-	-	-	-	-	
Critical Hdwy	6.8	6.9	4.14	-	-	-	
Critical Hdwy Stg 1	5.8	-	-	-	-	-	
Critical Hdwy Stg 2	5.8	-	-	-	-	-	
Follow-up Hdwy	3.5	3.3	2.22	-	-	-	
Pot Cap-1 Maneuver	277	705	979	-	-	-	
Stage 1	544	-	-	-	-	-	
Stage 2	685	-	-	-	-	-	
Platoon blocked, %				-	-	-	
Mov Cap-1 Maneuver	265	705	979	-	-	-	
Mov Cap-2 Maneuver	265	-	-	-	-	-	
Stage 1	521	-	-	-	-	-	
Stage 2	685	-	-	-	-	-	
Approach	EB		NB		SB		
HCM Control Delay, s	20.7		0.6		0		
HCM LOS	20.7 C		0.0		U		
TIGIVI LOS	U						
Minor Lane/Major Mvmt		NBL	NBT	EBLn1 E	EBLn2	SBT	
Capacity (veh/h)		979	-	265	705	-	
HCM Lane V/C Ratio		0.029	-	0.398	0.099	-	
HCM Control Delay (s)		8.8	0.2	27.3	10.7	-	
HCM Lane LOS		Α	Α	D	В	-	
HCM 95th %tile Q(veh)		0.1	-	1.8	0.3	-	
222 /2000 24(1901)							

Movement EBL EBT WBT WBR SBL SBR	Intersection						
Movement		0.3					
Cane Configurations			FDT	WDT	WDD	CDI	CDD
Traffic Vol, veh/h Future Vol, veh/h Future Vol, veh/h Future Vol, veh/h Substituting Peds, #/hr Conflicting Flow All Confli		FBL			WBK		SBR
Future Vol, veh/h Conflicting Peds, #/hr Conflicting Length - None Free Free Free Free Stop Stop RT Channelized - None - No		•			^		0
Conflicting Peds, #/hr O O O O O O O O O							
Sign Control Free RTC Free RTC None RTC Free RTC <t< td=""><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	-						
None							
Storage Length							
Approach Fig. Fig							
Grade, % - 0 0 - 0 - Peak Hour Factor 92					-		
Peak Hour Factor 92 93 93 93 93 93 94 94 94 94 94		∋,# -			-		-
Heavy Vehicles, % 2 2 2 2 2 2 2 2 2	Grade, %						
Mymt Flow 3 274 192 10 7 7 Major/Minor Major1 Major2 Minor2 Conflicting Flow All 202 0 - 0 477 197 Stage 1 - - - 197 - Stage 2 - - - 6.42 6.22 Critical Hdwy 4.12 - - 6.42 6.22 Critical Hdwy Stg 1 - - - 5.42 - Critical Hdwy Stg 2 - - - 5.42 - Critical Hdwy Stg 2 - - - 5.42 - Critical Hdwy Stg 2 - - - 5.42 - Critical Hdwy Stg 2 - - - 5.42 - Critical Hdwy Stg 2 - - - 5.47 844 Stage 1 - - - 547 844 Stage 1 - -							
Major/Minor Major1 Major2 Minor2 Conflicting Flow All 202 0 - 0 477 197 Stage 1 197 - 197 Stage 2 280 - 280 Critical Hdwy Stg 1 5.42 - 5.42 - 200 Critical Hdwy Stg 2 5.42 - 5.42 - 601 Critical Hdwy Stg 2 5.42 - 5.42 - 601 Critical Hdwy Stg 2 5.42 - 5.42 - 601 Critical Hdwy Stg 2 5.42 - 602 Critical Hdwy Stg 1 547 Critical Hdwy Stg 1 547 Magorian Hdwy Stg 2 545 Critical Hdwy Stg 1 547 Critical Hdwy Stg 1 542 Critical Hdwy Stg 1 545 Critical Hdwy Stg 1 542 Critical Hdwy Stg 2 542 Critical Hdwy Stg 2 542 Critical Hdwy Stg 2 542 Critical Hdwy Critical Critic	Heavy Vehicles, %						
Stage 1	Mvmt Flow	3	274	192	10	7	7
Stage 1							
Stage 1	Major/Miner	Maiar1		Ania-O		Mine TO	
Stage 1 - - - 197 - Stage 2 - - - 280 - Critical Hdwy 4.12 - - 6.42 6.22 Critical Hdwy Stg 1 - - - 5.42 - Critical Hdwy Stg 2 - - - 5.42 - Follow-up Hdwy 2.218 - - 5.42 - Follow-up Hdwy 2.218 - - 547 844 Stage 1 - - - 547 844 Stage 2 - - - 767 - Platoon blocked, % - - - - 767 - Mov Cap-1 Maneuver 1370 - - 545 844 Mov Cap-2 Maneuver - - - 675 - Stage 1 - - - 833 - Stage 2 - - - 767 - Approach EB WB WB SB							4.5
Stage 2 - - - 280 - Critical Hdwy 4.12 - - 6.42 6.22 Critical Hdwy Stg 1 - - - 5.42 - Critical Hdwy Stg 2 - - - 5.42 - Follow-up Hdwy 2.218 - - 5.42 - Follow-up Hdwy 2.218 - - 547 844 Stage 1 - - - 547 844 Stage 2 - - - - 767 - Platoon blocked, % - <td></td> <td>202</td> <td>0</td> <td>-</td> <td>0</td> <td></td> <td>197</td>		202	0	-	0		197
Critical Hdwy 4.12 - - 6.42 6.22 Critical Hdwy Stg 1 - - - 5.42 - Critical Hdwy Stg 2 - - - 5.42 - Follow-up Hdwy 2.218 - - 5.42 - Follow-up Hdwy 2.218 - - 547 844 Stage 1 - - - 547 844 Stage 1 - - - - 767 - Platoon blocked, % -		-	-	-	-		-
Critical Hdwy Stg 1 5.42 - Critical Hdwy Stg 2 5.42 - 5.42 5.42 - 5.42			-	-	-		
Critical Hdwy Stg 2 5.42 - Follow-up Hdwy 2.218 3.518 3.318 Pot Cap-1 Maneuver 1370 547 844 Stage 1 836 - Stage 2 767 - Platoon blocked, % Mov Cap-1 Maneuver 1370 545 844 Mov Cap-2 Maneuver 675 - Stage 1 833 - Stage 2 767 - Approach EB WB SB HCM Control Delay, s 0.1 0 9.9 HCM LOS A Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1 Capacity (veh/h) 1370 750 HCM Lane V/C Ratio 0.002 0.017 HCM Control Delay (s) 7.6 0 - 9.9 HCM Lane LOS A A	Critical Hdwy	4.12	-	-	-		6.22
Follow-up Hdwy 2.218 3.518 3.318 Pot Cap-1 Maneuver 1370 547 844 Stage 1 836 - Stage 2 767 - Platoon blocked, % Mov Cap-1 Maneuver 1370 545 844 Mov Cap-2 Maneuver 675 - Stage 1 675 - Stage 2 767 - Approach EB WB SB HCM Control Delay, s 0.1 0 9.9 HCM LOS A Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1 Capacity (veh/h) 1370 750 HCM Lane V/C Ratio 0.002 0.017 HCM Control Delay (s) 7.6 0 - 9.9 HCM Lane LOS A A	Critical Hdwy Stg 1		-	-	-		-
Stage 1	Critical Hdwy Stg 2		-	-	-		
Stage 1 - - - 836 - Stage 2 - - - 767 - Platoon blocked, % - - - - - Mov Cap-1 Maneuver 1370 - - 545 844 Mov Cap-2 Maneuver - - - 675 - Stage 1 - - - 833 - Stage 2 - - - 767 - Approach EB WB SB HCM Control Delay, s 0.1 0 9.9 HCM LOS A A - - 750 HCM Lane/Major Mvmt EBL EBT WBT WBR SBLn1 Capacity (veh/h) 1370 - - - 750 - - - 0.017 - - - - - - - - - - - - - - - -	Follow-up Hdwy		-	-	-		
Stage 2 - - - 767 - Platoon blocked, % - - - - - Mov Cap-1 Maneuver 1370 - - 545 844 Mov Cap-2 Maneuver - - - 675 - Stage 1 - - - 833 - Stage 2 - - - 767 - Approach EB WB SB HCM Control Delay, s 0.1 0 9.9 HCM LOS A A - - 750 HCM Lane/Major Mvmt EBL EBT WBT WBR SBLn1 Capacity (veh/h) 1370 - - 750 - - - 0.017 - <td< td=""><td>Pot Cap-1 Maneuver</td><td>1370</td><td>-</td><td>-</td><td>-</td><td>547</td><td>844</td></td<>	Pot Cap-1 Maneuver	1370	-	-	-	547	844
Stage 2 - - - 767 - Platoon blocked, % - - - - - - - - - - - 545 844 Mov Cap-1 Maneuver - - - - 545 844 - - - 675 - - - 675 - - 833 - - - 833 - - - 767 - - - - 767 - - - - - - 767 -<	Stage 1	-	-	-	-	836	-
Platoon blocked, %		-	-	-	-	767	-
Mov Cap-1 Maneuver 1370 - - 545 844 Mov Cap-2 Maneuver - - - 675 - Stage 1 - - - - 833 - Stage 2 - - - - 767 - Approach EB WB SB HCM Control Delay, s 0.1 0 9.9 HCM LOS A A Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1 Capacity (veh/h) 1370 750 HCM Lane V/C Ratio 0.002 0.017 HCM Control Delay (s) 7.6 0 - 9.9 HCM Lane LOS A A A	Platoon blocked, %		_	-	_		
Mov Cap-2 Maneuver 675 - Stage 1 833 - Stage 2 767 767 767	-	1370	-	-	-	545	844
Stage 1 - - - 833 - Stage 2 - - - - 767 - Approach EB WB SB HCM Control Delay, s 0.1 0 9.9 HCM LOS A A Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1 Capacity (veh/h) 1370 750 HCM Lane V/C Ratio 0.002 0.017 HCM Control Delay (s) 7.6 0 - 9.9 HCM Lane LOS A A A	•		_	_	_		
Stage 2 - - - - 767 - Approach EB WB SB HCM Control Delay, s 0.1 0 9.9 HCM LOS A Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1 Capacity (veh/h) 1370 - - - 750 HCM Lane V/C Ratio 0.002 - - 0.017 HCM Control Delay (s) 7.6 0 - - 9.9 HCM Lane LOS A A - A			_	-	_		
Approach EB WB SB HCM Control Delay, s 0.1 0 9.9 HCM LOS A Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1 Capacity (veh/h) 1370 750 HCM Lane V/C Ratio 0.002 0.017 HCM Control Delay (s) 7.6 0 - 9.9 HCM Lane LOS A A - A	ŭ		_	_	_		
Capacity (veh/h)	Olage 2	-				101	
Capacity (veh/h)							
A Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1 Capacity (veh/h) 1370 - - 750 HCM Lane V/C Ratio 0.002 - - 0.017 HCM Control Delay (s) 7.6 0 - 9.9 HCM Lane LOS A A - A	Approach	EB		WB		SB	
Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1 Capacity (veh/h) 1370 750 HCM Lane V/C Ratio 0.002 0.017 HCM Control Delay (s) 7.6 0 - 9.9 HCM Lane LOS A A - A	HCM Control Delay, s	0.1		0		9.9	
Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1 Capacity (veh/h) 1370 750 HCM Lane V/C Ratio 0.002 0.017 HCM Control Delay (s) 7.6 0 - 9.9 HCM Lane LOS A A - A	HCM LOS					Α	
Capacity (veh/h) 1370 - - 750 HCM Lane V/C Ratio 0.002 - - 0.017 HCM Control Delay (s) 7.6 0 - - 9.9 HCM Lane LOS A A - A							
Capacity (veh/h) 1370 - - 750 HCM Lane V/C Ratio 0.002 - - 0.017 HCM Control Delay (s) 7.6 0 - - 9.9 HCM Lane LOS A A - A	Min and any (NA 11 AA	-4	EDI	CDT	WOT	MPD	ODL 4
HCM Lane V/C Ratio 0.002 0.017 HCM Control Delay (s) 7.6 0 - 9.9 HCM Lane LOS A A - A		nt		FRI	WBI		
HCM Control Delay (s) 7.6 0 - 9.9 HCM Lane LOS A A - A				-	-		
HCM Lane LOS A A A					-	-	
					-	-	
HCM 95th %tile Q(veh) 0 0.1				Α	-	-	
	HCM 95th %tile Q(veh)	0	-	-	-	0.1

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	1			स्	7	*	†		*	†	
Traffic Volume (veh/h)	130	133	54	46	139	253	46	543	27	204	813	133
Future Volume (veh/h)	130	133	54	46	139	253	46	543	27	204	813	133
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	4070	No	4070	4070	No	4070	4700	No	4700	4700	No	4700
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	141	145	59	50	151	275	50	590	29	222	884	145
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	327	370	150	159	421	464	285	1108	54	472	1183	194
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.05	0.35	0.35	0.12	0.42	0.42
Sat Flow, veh/h	961	1264	514	271	1439	1585	1641	3175	156	1641	2815	462
Grp Volume(v), veh/h	141	0	204	201	0	275	50	304	315	222	514	515
Grp Sat Flow(s),veh/h/ln	961	0	1778	1711	0	1585	1641	1637	1695	1641	1637	1640
Q Serve(g_s), s	7.7	0.0	5.2	0.0	0.0	8.4	1.1	8.4	8.4	4.5	15.0	15.0
Cycle Q Clear(g_c), s	12.5	0.0	5.2	4.8	0.0	8.4	1.1	8.4	8.4	4.5	15.0	15.0
Prop In Lane	1.00	^	0.29	0.25	0	1.00	1.00	F74	0.09	1.00	000	0.28
Lane Grp Cap(c), veh/h	327	0	520	580	0	464	285	571	591	472	688	689
V/C Ratio(X)	0.43	0.00	0.39	0.35	0.00	0.59	0.18	0.53	0.53	0.47	0.75	0.75
Avail Cap(c_a), veh/h	684	1.00	1181 1.00	1187 1.00	1.00	1053	424	1348	1396	930 1.00	1783 1.00	1786
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00	1.00
Upstream Filter(I) Uniform Delay (d), s/veh	20.8	0.00	16.0	15.8	0.00	17.1	11.8	1.00	14.7	9.6	13.8	13.8
Incr Delay (d2), s/veh	0.9	0.0	0.5	0.4	0.0	1.2	0.3	0.8	0.7	0.7	1.6	1.6
Initial Q Delay(d3),s/veh	0.9	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	2.0	2.0	0.0	3.0	0.0	2.4	2.5	1.1	4.1	4.1
Unsig. Movement Delay, s/veh		0.0	2.0	2.0	0.0	5.0	0.5	2.7	2.0	1.1	7.1	7.1
LnGrp Delay(d),s/veh	21.7	0.0	16.4	16.2	0.0	18.3	12.1	15.5	15.4	10.3	15.5	15.5
LnGrp LOS	C	Α	В	В	Α	В	В	В	В	В	В	10.0 B
Approach Vol, veh/h		345			476			669			1251	
Approach Delay, s/veh		18.6			17.4			15.2			14.6	
Approach LOS		В			В			В			В	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.2	24.2		21.0	7.2	28.2		21.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	22.5	46.5		37.5	7.5	61.5		37.5				
Max Q Clear Time (g_c+l1), s	6.5	10.4		14.5	3.1	17.0		10.4				
Green Ext Time (p_c), s	0.5	3.3		2.0	0.0	6.7		2.3				
Intersection Summary												
HCM 6th Ctrl Delay			15.7									
HCM 6th LOS			В									

Intersection						
Int Delay, s/veh	6.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	*	7		414	†	<u> </u>
Traffic Vol, veh/h	80	70	78	594	712	220
Future Vol, veh/h	80	70	78	594	712	220
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	165	0	_	-	_	-
Veh in Median Storage		-	_	0	0	_
Grade, %	0	_	_	0	0	_
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	2	2	2
Mvmt Flow	87	76	85	646	774	239
IVIVIII(I IOW	O1	70	00	0+0	117	200
	Minor2		Major1		Major2	
Conflicting Flow All	1387	507	1013	0	-	0
Stage 1	894	-	-	-	-	-
Stage 2	493	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.14	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.22	-	-	-
Pot Cap-1 Maneuver	136	516	680	-	-	-
Stage 1	365	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	109	516	680	-	-	-
Mov Cap-2 Maneuver	109	-	_	_	-	_
Stage 1	294	_	_	_	_	_
Stage 2	585	_	_	_	_	_
Olago Z	000					
					25	
Approach	EB		NB		SB	
HCM Control Delay, s	65.1		2.1		0	
HCM LOS	F					
Minor Lane/Major Mvm	ıt	NBL	NBT	EBLn1 E	FBI n2	SBT
Capacity (veh/h)		680	-	109	516	-
HCM Lane V/C Ratio		0.125		0.798		_
HCM Control Delay (s)		11		110.5	13.2	_
HCM Lane LOS		В	Α	F	13.2 B	_
HCM 95th %tile Q(veh)		0.4	-	4.5	0.5	_
HOW JOHN JOHNE Q(VEII)		U. T		₹.∪	0.0	_

Intersection						
Int Delay, s/veh	0.6					
			14/5	\4/==		055
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	Þ		W	
Traffic Vol, veh/h	10	299	302	16	18	6
Future Vol, veh/h	10	299	302	16	18	6
Conflicting Peds, #/hr	0	0	0	0	0	0
•	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage,	# -	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	325	328	17	20	7
NA . ' /NA'	1.1.4		4 . 0		M' 0	
	lajor1		Major2		Minor2	
Conflicting Flow All	345	0	-	0	684	337
Stage 1	-	-	-	-	337	-
Stage 2	-	-	-	-	347	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy 2	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1214	-	-	-	414	705
Stage 1	-	-	-	-	723	-
Stage 2	-	-	-	-	716	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1214	-	-	_	409	705
Mov Cap-2 Maneuver	_	-	_	-	582	-
Stage 1	_	_	_	_	715	_
Stage 2	_	_	_	_	716	_
Glago L						
Approach	EB		WB		SB	
HCM Control Delay, s	0.3		0		11.2	
HCM LOS					В	
		EDI	EBT	WBT	WBR	QRI n1
Minor Lane/Major Mymt		-RI			יושויי	ODLIII
Minor Lane/Major Mvmt		1214	EDI	***		600
Capacity (veh/h)		1214	-	-	-	609
Capacity (veh/h) HCM Lane V/C Ratio		1214 0.009	-	-	-	0.043
Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s)		1214 0.009 8	- - 0	- - -	- - -	0.043 11.2
Capacity (veh/h) HCM Lane V/C Ratio		1214 0.009	-	-	-	0.043

	۶	→	*	•	+	4	1	†	~	1	†	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	Y	₽			स्	7	*	†		*	↑ ↑	
Traffic Volume (veh/h)	133	125	60	47	142	258	51	588	28	208	866	136
Future Volume (veh/h)	133	125	60	47	142	258	51	588	28	208	866	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	145	136	65	51	154	280	55	639	30	226	941	148
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	316	352	168	156	420	467	273	1169	55	457	1230	193
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.05	0.37	0.37	0.12	0.43	0.43
Sat Flow, veh/h	954	1196	572	280	1427	1585	1641	3183	149	1641	2834	445
Grp Volume(v), veh/h	145	0	201	205	0	280	55	328	341	226	543	546
Grp Sat Flow(s),veh/h/ln	954	0	1767	1707	0	1585	1641	1637	1696	1641	1637	1643
Q Serve(g_s), s	8.6	0.0	5.5	0.0	0.0	9.2	1.2	9.7	9.7	4.8	17.1	17.1
Cycle Q Clear(g_c), s	13.9	0.0	5.5	5.3	0.0	9.2	1.2	9.7	9.7	4.8	17.1	17.1
Prop In Lane	1.00		0.32	0.25		1.00	1.00		0.09	1.00		0.27
Lane Grp Cap(c), veh/h	316	0	520	576	0	467	273	601	623	457	711	713
V/C Ratio(X)	0.46	0.00	0.39	0.36	0.00	0.60	0.20	0.55	0.55	0.49	0.76	0.77
Avail Cap(c_a), veh/h	623	0	1089	1102	0	976	393	1250	1295	872	1653	1659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	0.0	17.1	17.0	0.0	18.4	12.3	15.3	15.3	10.0	14.6	14.6
Incr Delay (d2), s/veh	1.0	0.0	0.5	0.4	0.0	1.2	0.4	0.8	0.8	0.8	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	2.2	2.2	0.0	3.3	0.4	2.9	3.0	1.2	4.9	4.9
Unsig. Movement Delay, s/veh		0.0	47.0	47.4	0.0	40.7	40.7	40.0	40.0	10.0	40.0	10.0
LnGrp Delay(d),s/veh	23.6	0.0	17.6	17.4	0.0	19.7	12.7	16.0	16.0	10.8	16.3	16.3
LnGrp LOS	С	A	В	В	A	В	В	В	В	В	В	<u>B</u>
Approach Vol, veh/h		346			485			724			1315	
Approach Delay, s/veh		20.1			18.7			15.8			15.4	
Approach LOS		С			В			В			В	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.6	26.9		22.4	7.5	30.9		22.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	22.5	46.5		37.5	7.5	61.5		37.5				
Max Q Clear Time (g_c+l1), s	6.8	11.7		15.9	3.2	19.1		11.2				
Green Ext Time (p_c), s	0.5	3.7		2.0	0.0	7.3		2.4				
Intersection Summary												
HCM 6th Ctrl Delay			16.6									
HCM 6th LOS			В									

Intersection							
Int Delay, s/veh	6.7						
		EDD	NDI	NDT	CDT	CDD	
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	*	7	00	414	† \$	00.4	
Traffic Vol, veh/h	82	71	80	642	755	224	
Future Vol, veh/h	82	71	80	642	755	224	
Conflicting Peds, #/hr	0	0	_ 0	_ 0	_ 0	_ 0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	165	0	-	-	-	-	
Veh in Median Storage,		-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	95	95	95	95	95	95	
Heavy Vehicles, %	0	0	2	2	2	2	
Mvmt Flow	86	75	84	676	795	236	
Majar/Minar M	الم م سال		1-1-1		4-10		
	linor2		Major1		Major2		
	1419	516	1031	0	-	0	
Stage 1	913	-	-	-	-	-	
Stage 2	506	-	-	-	-	-	
Critical Hdwy	6.8	6.9	4.14	-	-	-	
Critical Hdwy Stg 1	5.8	-	-	-	-	-	
Critical Hdwy Stg 2	5.8	-	-	-	-	-	
Follow-up Hdwy	3.5	3.3	2.22	-	-	-	
Pot Cap-1 Maneuver	130	509	670	-	-	-	
Stage 1	356	-	-	-	-	-	
Stage 2	576	-	-	-	-	-	
Platoon blocked, %				-	-	-	
Mov Cap-1 Maneuver	104	509	670	-	-	-	
Mov Cap-2 Maneuver	104	-	_	-	-	-	
Stage 1	284	_	_	_	_	_	
Stage 2	576	_	_	_	_	_	
Olago 2	0,0						
Approach	EB		NB		SB		
HCM Control Delay, s	71.2		2		0		
HCM LOS	F						
Minor Lane/Major Mvmt		NBL	NRT	EBLn1 E	FRI n2	SBT	
		670	NDT	104	509	ומט	
Capacity (veh/h)			-			-	
HCM Control Doloy (a)		0.126	-		0.147	-	
HCM Control Delay (s)		11.1		121.3	13.3	-	
HCM Lane LOS HCM 95th %tile Q(veh)		В	Α	F	В	-	
HI W Uhth With ()(voh)		0.4	-	4.7	0.5	-	

Intersection						
Int Delay, s/veh	0.5					
		FRT	MOT	MES	05:	000
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	7		Y	
Traffic Vol, veh/h	10	310	312	16	18	6
Future Vol, veh/h	10	310	312	16	18	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage	e, # -	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	337	339	17	20	7
Major/Minor	Major1		/aiar0		Minor	
	Major1		Major2		Minor2	0.40
Conflicting Flow All	356	0	-	0	707	348
Stage 1	-	-	-	-	348	-
Stage 2	-	-	-	-	359	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	
Pot Cap-1 Maneuver	1203	-	-	-	402	695
Stage 1	-	-	-	-	715	-
Stage 2	-	-	-	-	707	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1203	-	-	-	398	695
Mov Cap-2 Maneuver	-	-	-	-	573	-
Stage 1	-	-	-	-	707	-
Stage 2	-	_	_	_	707	_
3 11 9						
Λ			NA/D		00	
Approach	EB		WB		SB	
HCM Control Delay, s	0.3		0		11.3	
HCM LOS					В	
Minor Lane/Major Mvm	nt	EBL	EBT	WBT	WBR :	SBI n1
Capacity (veh/h)	<u> </u>	1203				599
HCM Lane V/C Ratio		0.009	_	_		0.044
HCM Control Delay (s)		8	0	_	_	11.3
HCM Lane LOS		A	A		<u> </u>	11.3 B
HCM 95th %tile Q(veh)	\	0	- -	-	-	0.1
HOW JOHN MILE WIVEN)	U	_	_	-	0.1

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	1			स	7	*	†		*	↑ ↑	
Traffic Volume (veh/h)	67	136	62	41	116	199	43	623	22	148	476	37
Future Volume (veh/h)	67	136	62	41	116	199	43	623	22	148	476	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1811	1811	1811	1682	1682	1682	1641	1641	1641
Adj Flow Rate, veh/h	82	166	76	50	141	243	52	760	27	180	580	45
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	4	4	4	6	6	6	5	5	5	8	8	8
Cap, veh/h	299	330	151	156	362	423	409	1076	38	396	1170	91
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.05	0.34	0.34	0.11	0.40	0.40
Sat Flow, veh/h	983	1195	547	233	1314	1535	1602	3147	112	1563	2932	227
Grp Volume(v), veh/h	82	0	242	191	0	243	52	386	401	180	308	317
Grp Sat Flow(s),veh/h/ln	983	0	1742	1547	0	1535	1602	1598	1662	1563	1559	1600
Q Serve(g_s), s	3.8	0.0	5.8	0.1	0.0	6.7	1.0	10.3	10.3	3.5	7.3	7.3
Cycle Q Clear(g_c), s	9.7	0.0	5.8	5.9	0.0	6.7	1.0	10.3	10.3	3.5	7.3	7.3
Prop In Lane	1.00		0.31	0.26		1.00	1.00		0.07	1.00		0.14
Lane Grp Cap(c), veh/h	299	0	480	519	0	423	409	546	568	396	622	639
V/C Ratio(X)	0.27	0.00	0.50	0.37	0.00	0.57	0.13	0.71	0.71	0.45	0.49	0.50
Avail Cap(c_a), veh/h	695	0	1183	1143	0	1042	537	1667	1734	907	2100	2156
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.2	0.0	15.0	14.5	0.0	15.4	9.6	14.1	14.1	9.9	11.1	11.1
Incr Delay (d2), s/veh	0.5	0.0	0.8	0.4	0.0	1.2	0.1	1.7	1.6	0.8	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	0.0	2.2	1.6	0.0	2.2	0.2	2.8	2.9	0.8	1.7	1.8
Unsig. Movement Delay, s/veh		0.0	45.0	440	0.0	40.0	0.7	45.0	457	40.7	44.7	44.7
LnGrp Delay(d),s/veh	19.7	0.0	15.9	14.9	0.0	16.6	9.7	15.8	15.7	10.7	11.7	11.7
LnGrp LOS	В	A 204	В	В	A 424	В	A	В	В	В	В	<u>B</u>
Approach Vol, veh/h		324			434			839			805	
Approach Delay, s/veh		16.8			15.9			15.4			11.5	
Approach LOS		В			В			В			В	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	21.4		18.1	7.0	24.2		18.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	21.5	51.5		33.5	6.5	66.5		33.5				
Max Q Clear Time (g_c+l1), s	5.5	12.3		11.7	3.0	9.3		8.7				
Green Ext Time (p_c), s	0.4	4.5		1.9	0.0	3.5		2.1				
Intersection Summary												
HCM 6th Ctrl Delay			14.4									
HCM 6th LOS			В									

Intersection							
Int Delay, s/veh	3.1						1
		EDD	NDI	NDT	ODT	CDD	
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	ሻ	7		41	†		
Traffic Vol, veh/h	99	65	27	591	520	72	
Future Vol, veh/h	99	65	27	591	520	72	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	165	0	-	-	-	-	
Veh in Median Storage,		-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	0	0	2	2	2	2	
Mvmt Flow	108	71	29	642	565	78	
N 4 - 1 - 1 / N 41	<i>1</i> ' 0		1		M.'. O		
	/linor2		Major1		Major2		
Conflicting Flow All	983	322	643	0	-	0	
Stage 1	604	-	-	-	-	-	
Stage 2	379	-	-	-	-	-	
Critical Hdwy	6.8	6.9	4.14	-	-	-	
Critical Hdwy Stg 1	5.8	-	-	-	-	-	
Critical Hdwy Stg 2	5.8	-	-	-	-	-	
Follow-up Hdwy	3.5	3.3	2.22	-	-	-	
Pot Cap-1 Maneuver	249	680	938	-	-	-	
Stage 1	514	-	-	-	-	-	
Stage 2	668	-	_	-	-	-	
Platoon blocked, %				_	-	-	
Mov Cap-1 Maneuver	237	680	938	-	-	-	
Mov Cap-2 Maneuver	237	-	-	_	_	_	
Stage 1	489	_	_	_	_	_	
Stage 2	668	_	_	_	_	_	
Olaye Z	000					_	
Approach	EB		NB		SB		
HCM Control Delay, s	23.8		0.6		0		
HCM LOS	С						
Minor Long /Maire M		NDI	NDT	CDL 4 1	EDL O	CDT	١
Minor Lane/Major Mvm	ι	NBL		EBLn1 I		SBT	
Capacity (veh/h)		938	_	237	680	-	
HCM Lane V/C Ratio		0.031	-	0.454		-	
HCM Control Delay (s)		0.031	0.2	0.454 32.2	10.9	-	
		0.031	-	0.454			

Intersection						
Int Delay, s/veh	0.3					
		FDT	MOT	MDD	ODI	ODD
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	•	4	1 07		Y	
Traffic Vol, veh/h	3	259	187	9	6	6
Future Vol, veh/h	3	259	187	9	6	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage,	,# -	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	282	203	10	7	7
Majay/Minay	1-1-14		4-i0		Minson	
	Major1		Major2		Minor2	000
Conflicting Flow All	213	0	-	0	496	208
Stage 1	-	-	-	-	208	-
Stage 2	-	-	-	-	288	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
	2.218	-	-	-		
Pot Cap-1 Maneuver	1357	-	-	-	533	832
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	761	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1357	-	_	-	531	832
Mov Cap-2 Maneuver	-	-	-	-	666	-
Stage 1	_	-	_	-	825	_
Stage 2	_	_	_	_	761	_
Jugo 2					, 0 1	
Approach	EB		WB		SB	
HCM Control Delay, s	0.1		0		10	
					В	
HCM LOS						
HCM LOS						
	t	FRI	FRT	WRT	WRR	SRI n1
Minor Lane/Major Mvm	t	EBL 1357	EBT	WBT	WBR	
Minor Lane/Major Mvmt	t	1357	-	-	-	740
Minor Lane/Major Mvmt Capacity (veh/h) HCM Lane V/C Ratio	t	1357 0.002	-	-	-	740 0.018
Minor Lane/Major Mvmt Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s)	t	1357 0.002 7.7	- - 0	- - -	- - -	740 0.018 10
Minor Lane/Major Mvmt Capacity (veh/h) HCM Lane V/C Ratio		1357 0.002	-	-	-	740 0.018

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	₽			स्	7	*	†		*	†	
Traffic Volume (veh/h)	85	136	74	41	117	199	47	623	22	148	476	42
Future Volume (veh/h)	85	136	74	41	117	199	47	623	22	148	476	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	1011	No	1011	1011	No	1011	1000	No	1000	4044	No	1011
Adj Sat Flow, veh/h/ln	1841	1841	1841	1811	1811	1811	1682	1682	1682	1641	1641	1641
Adj Flow Rate, veh/h	104	166	90	50	143	243	57	760	27	180	580	51
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	4	4	4	6	6	6	5	5	5	8	8	8
Cap, veh/h	308	337	183	157	382	461	392	1056	37	381	1131	99
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.05	0.34	0.34	0.11	0.39	0.39
Sat Flow, veh/h	982	1123	609	238	1274	1535	1602	3147	112	1563	2899	254
Grp Volume(v), veh/h	104	0	256	193	0	243	57	386	401	180	311	320
Grp Sat Flow(s),veh/h/ln	982	0	1731	1512	0	1535	1602	1598	1662	1563	1559	1595
Q Serve(g_s), s	5.2	0.0	6.4	0.2	0.0	6.9	1.2	11.1	11.2	3.8	8.0	8.1
Cycle Q Clear(g_c), s	11.8	0.0	6.4	6.6	0.0	6.9	1.2	11.1	11.2	3.8	8.0	8.1
Prop In Lane	1.00	0	0.35	0.26	0	1.00	1.00	F00	0.07	1.00	000	0.16
Lane Grp Cap(c), veh/h	308	0	520	540	0	461	392	536	557	381	608	622
V/C Ratio(X)	0.34	0.00	0.49	0.36	0.00	0.53	0.15	0.72	0.72	0.47	0.51	0.51
Avail Cap(c_a), veh/h	638	1.00	1101 1.00	1058 1.00	1.00	976	504	1562	1624	849 1.00	1967 1.00	2013
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00	1.00
Upstream Filter(I) Uniform Delay (d), s/veh	20.1	0.00	15.1	14.5	0.00	15.3	10.5	15.3	15.3	10.8	12.2	12.3
Incr Delay (d2), s/veh	0.6	0.0	0.7	0.4	0.0	0.9	0.2	1.8	1.8	0.9	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.4	0.0	0.9	0.2	0.0	0.0	0.9	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	2.4	1.7	0.0	2.3	0.0	3.2	3.3	0.0	2.0	2.1
Unsig. Movement Delay, s/veh		0.0	2.4	1.1	0.0	2.0	0.5	0.2	0.0	0.3	2.0	۷.۱
LnGrp Delay(d),s/veh	20.7	0.0	15.9	14.9	0.0	16.3	10.6	17.2	17.1	11.7	12.9	12.9
LnGrp LOS	C	Α	В	В	Α	В	В	В	В	В	12.3 B	12.3 B
Approach Vol, veh/h		360			436			844			811	
Approach Delay, s/veh		17.3			15.6			16.7			12.6	
Approach LOS		17.5 B			В			В			В	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.2	22.2		20.3	7.3	25.1		20.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	21.5	51.5		33.5	6.5	66.5		33.5				
Max Q Clear Time (g_c+I1), s	5.8	13.2		13.8	3.2	10.1		8.9				
Green Ext Time (p_c), s	0.4	4.5		2.1	0.0	3.5		2.1				
Intersection Summary												
HCM 6th Ctrl Delay			15.3									
HCM 6th LOS			В									

Intersection							
Int Delay, s/veh	3.2						
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	CDL Š	EDK.	NDL			אמט	
Traffic Vol, veh/h	99	65	27	41↑ 595	↑ ↑	72	
Future Vol, veh/h	99	65	27	595	532	72	
· · · · · · · · · · · · · · · · · · ·	0	00	0	090	0	0	
Conflicting Peds, #/hr Sign Control				Free	Free	Free	
RT Channelized	Stop -	Stop None	Free			None	
	165	None 0	-	None	-	None	
Storage Length			-	-	_	-	
Veh in Median Storage,		-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	0	0	2	2	2	2	
Mvmt Flow	108	71	29	647	578	78	
Major/Minor N	linor2	N	Major1	N	Major2		
Conflicting Flow All	999	328	656	0	-	0	
Stage 1	617	-	-	-	_	-	
Stage 2	382	_	_	_	_	_	
Critical Hdwy	6.8	6.9	4.14	_	_	_	
Critical Hdwy Stg 1	5.8	0.9	4.14	_	_	_	
	5.8		-	<u>-</u>		-	
Critical Hdwy Stg 2	3.5	3.3	2.22	_		_	
Follow-up Hdwy	244	5.5 674	927		-		
Pot Cap-1 Maneuver				-	-	-	
Stage 1	506	-	-	-	-	-	
Stage 2	665	-	-	-	-	-	
Platoon blocked, %	000	074	007	-	-	-	
Mov Cap-1 Maneuver	232	674	927	-	-	-	
Mov Cap-2 Maneuver	232	-	-	-	-	-	
Stage 1	481	-	-	-	-	-	
Stage 2	665	-	-	-	-	-	
Approach	EB		NB		SB		
HCM Control Delay, s	24.5		0.6		0		
HCM LOS	Z4.5		0.0				
TOW LOO	U						
Minor Lane/Major Mvmt		NBL	NBT	EBLn1 E	EBLn2	SBT	
Capacity (veh/h)		927	-	232	674	-	
HCM Lane V/C Ratio		0.032	-	0.464	0.105	-	
HCM Control Delay (s)		9	0.2	33.3	11	-	
HCM Lane LOS		Α	Α	D	В	-	
HCM 95th %tile Q(veh)		0.1	-	2.3	0.3	-	

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol. veh/h	3	259	3	9	187	9	10	0	30	6	0	6
Future Vol, veh/h	3	259	3	9	187	9	10	0	30	6	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	_	_	None	-	_	None	_	_	None	_	-	None
Storage Length	-	-	-	_	-	-	-	-	-	-	-	-
Veh in Median Storage	,# -	0	-	-	0	-	-	2	-	-	2	_
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	282	3	10	203	10	11	0	33	7	0	7
Major/Minor I	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	213	0	0	285	0	0	522	523	284	534	519	208
Stage 1	213	-	-	203	-	-	290	290	204	228	228	200
Stage 2				_			232	233	_	306	291	_
Critical Hdwy	4.12	_	_	4.12	_	_	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	12	<u>-</u>	_	- 1.12	_	_	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 2	_	_	_	_	_	_	6.12	5.52	_	6.12	5.52	_
Follow-up Hdwy	2.218	_	_	2.218	_	_		4.018		3.518	4.018	3.318
Pot Cap-1 Maneuver	1357	_	_	1277	_	_	465	459	755	457	461	832
Stage 1	-	_	_	-	_	_	718	672	-	775	715	-
Stage 2	_	_	_	_	_	_	771	712	_	704	672	_
Platoon blocked, %		_	_		_	_					J12	
Mov Cap-1 Maneuver	1357	_	_	1277	_	_	457	453	755	433	455	832
Mov Cap-2 Maneuver	-	_	_		_	_	609	577	-	582	575	-
Stage 1	_	_	_	-	-	_	716	670	_	773	709	_
Stage 2	_	_	_	_	_	_	758	706	_	672	670	_
2.030 2							. 00	. 00		J	3. 3	
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.3			10.4			10.4		
HCM LOS							В			В		
Minor Lane/Major Mvm	nt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)		712	1357	_	_	1277	_	_	685			
HCM Lane V/C Ratio		0.061	0.002	_	_	0.008	_	_	0.019			
HCM Control Delay (s)		10.4	7.7	0	-	7.8	0	_	10.4			
HCM Lane LOS		В	A	A	_	A	A	_	В			
HCM 95th %tile Q(veh))	0.2	0	-	-	0	-	_	0.1			
7000 00 00 0000		V. <u>-</u>	•						J. 1			

	۶	→	•	•	•	4	1	†	~	/	Ţ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	1→			र्स	7	*	†		7	†	
Traffic Volume (veh/h)	143	125	67	47	142	258	62	588	28	208	866	153
Future Volume (veh/h)	143	125	67	47	142	258	62	588	28	208	866	153
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	155	136	73	51	154	280	67	639	30	226	941	166
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	313	353	189	155	425	488	265	1187	56	449	1205	213
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.05	0.37	0.37	0.11	0.43	0.43
Sat Flow, veh/h	954	1145	615	282	1379	1585	1641	3183	149	1641	2781	490
Grp Volume(v), veh/h	155	0	209	205	0	280	67	328	341	226	554	553
Grp Sat Flow(s),veh/h/ln	954	0	1760	1661	0	1585	1641	1637	1696	1641	1637	1634
Q Serve(g_s), s	10.0	0.0	6.1	0.1	0.0	9.8	1.6	10.4	10.4	5.2	19.1	19.1
Cycle Q Clear(g_c), s	16.3	0.0	6.1	6.2	0.0	9.8	1.6	10.4	10.4	5.2	19.1	19.1
Prop In Lane	1.00		0.35	0.25		1.00	1.00		0.09	1.00		0.30
Lane Grp Cap(c), veh/h	313	0	542	580	0	488	265	610	632	449	709	709
V/C Ratio(X)	0.50	0.00	0.39	0.35	0.00	0.57	0.25	0.54	0.54	0.50	0.78	0.78
Avail Cap(c_a), veh/h	562	0	1002	1006	0	902	363	1155	1197	822	1528	1526
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.3	0.0	17.9	17.7	0.0	19.2	13.3	16.2	16.2	10.7	16.0	16.0
Incr Delay (d2), s/veh	1.2	0.0	0.4	0.4	0.0	1.1	0.5	0.7	0.7	0.9	1.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0 2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	2.4	2.4	0.0	3.5	0.5	3.2	3.3	1.4	5.7	5.7
Unsig. Movement Delay, s/veh LnGrp Delay(d),s/veh	25.5	0.0	18.3	18.1	0.0	20.2	13.8	16.9	16.9	11.6	17.9	17.9
LnGrp LOS	25.5 C	0.0 A	10.3 B	10.1	0.0 A	20.2 C	13.0 B	10.9 B	10.9 B	11.0 B	17.9 B	17.9 B
		364	D	D			D		D	D		Б
Approach Vol, veh/h					485			736 16.7			1333 16.8	
Approach LOS		21.4 C			19.3 B			10.7 B			10.0 B	
Approach LOS		C			D			Б			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	29.1		24.8	8.0	33.1		24.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	22.5	46.5		37.5	7.5	61.5		37.5				
Max Q Clear Time (g_c+l1), s	7.2	12.4		18.3	3.6	21.1		11.8				
Green Ext Time (p_c), s	0.5	3.7		2.0	0.0	7.5		2.4				
Intersection Summary												
HCM 6th Ctrl Delay			17.8									
HCM 6th LOS			В									

Intersection							J
Int Delay, s/veh	7						
	•	EDD	NDI	NDT	CDT	CDD	
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	<u>ነ</u>	7	00	41	↑ ↑	00.4	
Traffic Vol, veh/h	82	71	80	653	762	224	
Future Vol, veh/h	82	71	80	653	762	224	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	165	0	-	-	-	-	
Veh in Median Storage		-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	95	95	95	95	95	95	
Heavy Vehicles, %	0	0	2	2	2	2	
Mvmt Flow	86	75	84	687	802	236	
Major/Minor N	Minor2		/lajor1	N	Major?		Į
					Major2		
Conflicting Flow All	1432	519	1038	0	-	0	
Stage 1	920	-	-	-	-	-	
Stage 2	512	-	-	-	-	-	
Critical Hdwy	6.8	6.9	4.14	-	-	-	
Critical Hdwy Stg 1	5.8	-	-	-	-	-	
Critical Hdwy Stg 2	5.8	-	-	-	-	-	
Follow-up Hdwy	3.5	3.3	2.22	-	-	-	
Pot Cap-1 Maneuver	127	507	665	-	-	-	
Stage 1	353	-	-	-	-	-	
Stage 2	572	-	-	-	-	-	
Platoon blocked, %				-	-	-	
Mov Cap-1 Maneuver	101	507	665	-	-	-	
Mov Cap-2 Maneuver	101	-	-	-	-	-	
Stage 1	281	-	-	-	-	-	
Stage 2	572	-	-	-	-	-	
0							
A	ED		ND		C.D.		
Approach	EB		NB		SB		
HCM Control Delay, s	75.6		2		0		
HCM LOS	F						
Minor Lane/Major Mvm	t	NBL	NBT	EBLn1 E	EBLn2	SBT	
Capacity (veh/h)		665	_	101	507	_	
HCM Lane V/C Ratio		0.127	_	0.855		-	
HCM Control Delay (s)		11.2		129.5	13.3	_	
HCM Lane LOS		В	Α	125.5 F	В	-	
HCM 95th %tile Q(veh)		0.4	-	4.8	0.5	_	
HOW JOHN JOHN Q(VEII)		U. T		7.0	0.0		

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	10	310	10	28	312	16	6	0	17	18	0	6
Future Vol, veh/h	10	310	10	28	312	16	6	0	17	18	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	e,# -	0	-	-	0	-	-	2	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	337	11	30	339	17	7	0	18	20	0	7
Major/Minor	Major1			Major2			Minor1			Minor2		
		^			0			704			770	348
Conflicting Flow All	356	0	0	348	0	0	776	781	343	782	778	
Stage 1	-	-	-	-	-	-	365	365 416	-	408	408	-
Stage 2	1.10	-	-	1.10	-	-	411		6.00	374	370	6.00
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	0.040	-	-	6.12	5.52	2 240	6.12	5.52	2 240
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518		3.318	3.518		3.318
Pot Cap-1 Maneuver	1203	-	-	1211	-	-	315	326	700	312	328	695
Stage 1	_	-	-	-	-	-	654	623	-	620	597	-
Stage 2	-	-	-	-	-	-	618	592	-	647	620	-
Platoon blocked, %	4000	-	-	1011	-	-	000	0.10	700	00.4	044	005
Mov Cap-1 Maneuver	1203	-	-	1211	-	-	302	312	700	294	314	695
Mov Cap-2 Maneuver	-	-	-	-	-	-	482	470	-	474	467	-
Stage 1	-	-	-	-	-	-	647	616	-	613	578	-
Stage 2	-	-	-	-	-	-	593	574	-	623	613	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.6			11			12.4		
HCM LOS	J.2			3.0			В			В		
Minor Lanc/Major Mun	ot N	JDI 51	EBL	EPT	EDD	\\\DI	\\/DT	W/DD	CDI n1			
Minor Lane/Major Mvn	it r	VBLn1		EBT	EBR	WBL	WBT	WBR				
Capacity (veh/h)		626		-		1211	-	-				
HCM Lane V/C Ratio		0.04	0.009	-	-	0.025	-		0.051			
HCM Control Delay (s)		11	8	0	-	8	0	-				
HCM Lane LOS	,	В	A	Α	-	A	Α	-	В			
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.2			

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	
Directions Served	L	TR	LT	R	L	T	TR	L	T	TR	
Maximum Queue (ft)	120	277	310	125	121	276	267	166	215	192	
Average Queue (ft)	57	119	122	87	38	161	134	76	88	68	
95th Queue (ft)	115	215	247	143	105	249	218	137	167	144	
Link Distance (ft)		567	489			491	491		448	448	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	95			100	110			145			
Storage Blk Time (%)	3	13	10	3	0	18		0	1		
Queuing Penalty (veh)	6	11	24	6	0	9		1	2		

Intersection: 2: OR 99E & E Cleveland Street

Movement	EB	EB	NB	NB	SB
Directions Served	L	R	LT	T	TR
Maximum Queue (ft)	115	61	115	21	11
Average Queue (ft)	57	32	20	1	0
95th Queue (ft)	101	55	72	17	6
Link Distance (ft)		879	561	561	491
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	165				
Storage Blk Time (%)	0				
Queuing Penalty (veh)	0				

Intersection: 3: Young Street & Bryan Street

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	27	34
Average Queue (ft)	1	10
95th Queue (ft)	13	34
Link Distance (ft)	184	241
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 61

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	
Directions Served	L	TR	LT	R	L	T	TR	L	T	TR	
Maximum Queue (ft)	120	257	308	125	134	250	228	169	342	364	
Average Queue (ft)	78	107	133	92	44	130	119	91	141	171	
95th Queue (ft)	129	210	254	150	107	219	197	163	262	293	
Link Distance (ft)		567	489			491	491		448	448	
Upstream Blk Time (%)									0	0	
Queuing Penalty (veh)									0	0	
Storage Bay Dist (ft)	95			100	110			145			
Storage Blk Time (%)	10	10	14	4		11		1	4		
Queuing Penalty (veh)	19	15	38	7		6		5	9		

Intersection: 2: OR 99E & E Cleveland Street

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	LT	Т	T	TR
Maximum Queue (ft)	189	462	292	231	9	46
Average Queue (ft)	127	149	108	41	0	5
95th Queue (ft)	225	481	244	167	8	26
Link Distance (ft)		879	561	561	491	491
Upstream Blk Time (%)		1				
Queuing Penalty (veh)		0				
Storage Bay Dist (ft)	165					
Storage Blk Time (%)	35	0				
Queuing Penalty (veh)	26	0				

Intersection: 3: Young Street & Bryan Street

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	49	52
Average Queue (ft)	3	21
95th Queue (ft)	21	46
Link Distance (ft)	184	241
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 127

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	
Directions Served	L	TR	LT	R	L	T	TR	L	T	TR	
Maximum Queue (ft)	119	261	279	125	134	291	257	164	221	193	
Average Queue (ft)	61	115	101	80	45	164	136	73	86	73	
95th Queue (ft)	116	212	202	138	114	259	227	137	170	150	
Link Distance (ft)		572	489			491	491		448	448	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	95			100	110			145			
Storage Blk Time (%)	3	12	8	3	0	18		0	1		
Queuing Penalty (veh)	8	12	18	5	0	10		1	3		

Intersection: 2: OR 99E & E Cleveland Street

Movement	EB	EB	NB	NB	SB
Directions Served	L	R	LT	T	TR
Maximum Queue (ft)	124	57	123	47	7
Average Queue (ft)	56	32	25	2	0
95th Queue (ft)	101	52	83	27	4
Link Distance (ft)		879	561	561	491
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	165				
Storage Blk Time (%)	0				
Queuing Penalty (veh)	0				

Intersection: 3: Site Access/Bryan Street & Young Street

EB	WB	NB	SB
LTR	LTR	LTR	LTR
15	30	58	35
1	2	24	12
7	15	51	37
179	572	320	242
	LTR 15 1 7	LTR LTR 15 30 1 2 7 15	LTR LTR LTR 15 30 58 1 2 24 7 15 51

Network Summary

Network wide Queuing Penalty: 57

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	
Directions Served	L	TR	LT	R	L	Т	TR	L	T	TR	
Maximum Queue (ft)	120	302	322	125	134	272	236	169	387	360	
Average Queue (ft)	83	120	130	94	52	134	123	91	166	191	
95th Queue (ft)	134	238	254	152	116	224	202	169	303	330	
Link Distance (ft)		572	489			491	491		448	448	
Upstream Blk Time (%)									0	0	
Queuing Penalty (veh)									0	0	
Storage Bay Dist (ft)	95			100	110			145			
Storage Blk Time (%)	11	11	13	4	0	10		1	6		
Queuing Penalty (veh)	23	16	35	8	0	7		4	14		

Intersection: 2: OR 99E & E Cleveland Street

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	LT	T	T	TR
Maximum Queue (ft)	190	634	248	196	9	41
Average Queue (ft)	144	238	106	29	0	4
95th Queue (ft)	233	674	223	133	7	23
Link Distance (ft)		879	561	561	491	491
Upstream Blk Time (%)		0				
Queuing Penalty (veh)		0				
Storage Bay Dist (ft)	165					
Storage Blk Time (%)	50	0				
Queuing Penalty (veh)	37	0				

Intersection: 3: Site Access/Bryan Street & Young Street

EB	WB	NB	SB
LTR	LTR	LTR	LTR
48	69	46	39
4	13	20	18
24	46	46	44
179	572	320	242
	LTR 48 4 24	LTR LTR 48 69 4 13 24 46	LTR LTR LTR 48 69 46 4 13 20 24 46 46

Network Summary

Network wide Queuing Penalty: 144