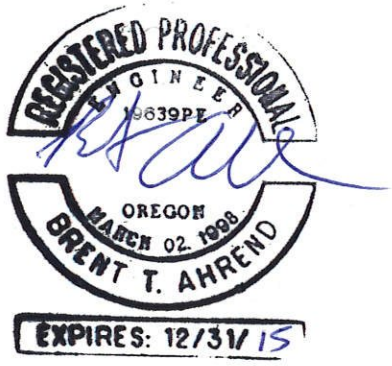
MACKENZIE.

DESIGN DRIVEN | CLIENT FOCUSED



TRANSPORTATION IMPACT ANALYSIS

To
City of Newberg /
Oregon Department of Transportation

For
Fred Meyer Stores, Inc.
Fuel Facility Expansion
Newberg, Oregon

Submitted
November 21, 2014

Project Number
2140436.00

MACKENZIE
Since 1960

RiverEast Center | 1515 SE Water Ave, Suite 100, Portland, OR 97214
PO Box 14310, Portland, OR 97293 | T 503.224.9560 | www.mcknze.com

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

I. INTRODUCTION

Mackenzie presents this Transportation Impact Analysis (TIA) to address the potential impacts of the proposed Fred Meyer fuel facility expansion in Newberg, Oregon. The site is located on the south side of Highway 99W between Springbrook Road and Brutscher Street. Figure 1 is a vicinity map indicating the project location.

The subject property is zoned Community Commercial (C-2) in which the existing fuel facility was approved as a conditional use in September 2010; the current application represents an update to the prior conditional use approval. The prior approval was informed by our March 17, 2009 TIA and subsequent documents.

Project Description

The existing fuel facility provides 14 vehicle fueling positions (VFPs) at the west side of the Fred Meyer Newberg store near its driveway accessing Springbrook Road. The proposed expansion will add four VFPs by extending the canopy over two new fuel dispensers on the south side of the existing facility. No new driveways or changes to existing driveways are proposed. Construction is planned to occur in one phase, and completion is expected in 2015. Site plans prepared by Barghausen Consulting Engineers are provided in the Appendix for reference.

Scope of Analysis

This TIA addresses impacts of the proposed fuel facility expansion on the surrounding roadways, the Fred Meyer site driveways, and the Fred Meyer internal circulation system. Analyses are presented to address both City of Newberg and Oregon Department of Transportation (ODOT) requirements. Review includes local pedestrian and bicycle facilities, crash history, sight distance, intersection operation analysis, and intersection queuing. Specific attention is given to Phase 1 of the Newberg-Dundee Bypass Project, which is currently under construction and is anticipated to be complete in 2017. Additional analyses are presented to address local concerns raised during the original application process for the current fuel facility, including on-site circulation and fuel delivery truck operations.

Traffic analyses are presented for the following two periods:

- Weekday PM Peak Hour
- Saturday Midday Peak Hour

Traffic analyses are presented for the following four scenarios:

- 2014 Existing
- 2015 Pre-Development (without expansion)
- 2015 Post-Development (with expansion)
- 2017 Post-Development (with expansion) with Newberg-Dundee Bypass Phase 1 complete

Traffic analyses are presented at the following study area intersections:

- Springbrook Road/Hayes Street
- Springbrook Road/Fred Meyer Driveway
- Highway 99W/Springbrook Road
- Highway 99W/Fred Meyer West (Right-In) Driveway
- Highway 99W/Fred Meyer East (Right-In Right-Out) Driveway
- Highway 99W/Brutscher Street
- Brutscher Street/Fred Meyer North Driveway

- Fred Meyer On-Site Intersections:
  - Main Drive Aisle/US Bank/Fuel Drive Aisle
  - Main Drive Aisle/West (Right-In) Driveway
  - Main Drive Aisle/East (Right-In Right-Out) Driveway

II. EXISTING CONDITIONS

Site Conditions

The fuel facility occupies a portion of the overall Fred Meyer store site, located at 3300 Portland Road in Newberg, Oregon; and identified as tax lot 2004 in Section 16 of Township 3 South, Range 2 West of the Willamette Meridian on Yamhill County Assessor's maps. Five other contiguous commercial developments share parking/circulation areas and roadway accesses with the Fred Meyer site; uses include a bank, fast food restaurants, an office/retail building, and a quick lubrication vehicle service shop.

The existing fuel facility provides 14 vehicle fueling positions (VFPs) at the west side of the Fred Meyer store. Customer traffic flows one way (east to west) past the dispensers, and all vehicles are directed to turn left upon exiting the canopy area to circulate counterclockwise back to the north-south drive aisle between the fuel facility and the Fred Meyer store.

The overall site accesses the public roadway system at six locations. Four of these driveway intersections are included in this TIA study area:

- Springbrook Road driveway (right-in/right-out only)
- Highway 99W West Driveway (right-in only)
- Highway 99W East Driveway (right-in/right-out only)
- Brutscher Street North Driveway (full movement)

The two other site driveways provide full movement access to Brutscher Street and Little Oak Street.

Transportation Facilities

The following table summarizes the study area roadway classifications and characteristics, as identified by Mackenzie staff and as classified by the *Newberg Transportation System Plan* (June 2005), the *1999 Oregon Highway Plan* (revised through August 22, 2013), and the ODOT Functional Classification and National Highway System Status Table (as of October 2014).

TABLE 1 – STUDY AREA ROADWAY CHARACTERISTICS

Roadway	Classification	Posted Speed (mph)	Travel Lanes	Bike Lanes	On-Street Parking	Side-walks
Highway 99W	City: Major Arterial ODOT: Statewide Highway, National Highway System (NHS), National Network (NN, a federally designated truck route), Freight Route (FR), Reduction Review Route (RRR), Other Principal Arterial-Urban	35	5	Yes	No	Yes
Springbrook Road	Minor Arterial	25 (N of 99W) 35 (S of 99W)	2 to 3	Partial	No	Partial
Brutscher Street	Major Collector	25	3	Yes	No	Yes
Hayes Street	Major Collector	25	2	Yes	No	Yes

All Fred Meyer site driveways are stop controlled. The Highway 99W intersections at Springbrook Road and Brutscher Street are both signalized and allow U-turns along Highway 99W. The Fred Meyer on-site intersections are all-way stop controlled, except the eastbound Main Drive Aisle approach to the East Driveway (right-in/right-out) operates freely; this intersection is modeled as all-way stop controlled to generate a configuration compatible with standard analysis methodologies.

Figure 2 presents the existing lane configurations and traffic controls at study area intersections.

Pedestrian and Bicycle Facilities

Sidewalks and bicycle lanes are currently provided throughout most of the study area, including along the entire Fred Meyer site frontage. The exception is a portion of Springbrook Road south of the Fred Meyer site frontage where a separated paved path along the west side of the roadway provides the path for pedestrians and bicyclists.

Transit Facilities

There are two bus services that provide transit service in the study area.

Yamhill County Transit Area (YCTA) operates three bus routes serving Newberg. Route 44 travels between McMinnville and Tigard on Hwy 99W (46S on Saturdays), with a stop at Brutscher Street and service between 1-2 hours during weekdays. Routes 5 and 7 serve the north and east ends of Newberg, with stops every hour. Only route 7 stops at Fred Meyer. The operation schedules for the three routes are located in the Appendix.

Traffic Volumes

Turning movement count data were collected at study area intersections during the weekday PM peak period (4:00-6:00 PM) and during the Saturday midday peak period (11:00 AM-2:00 PM) on October 16th and 18th, 2014, respectively. The system peak hours were identified as 4:00-5:00 PM (weekday) and 1:00-2:00 PM (Saturday) for this analysis. Copies of the data reports are provided in the Appendix.

In accordance with Chapter 5.4.1 of the ODOT *Analysis Procedures Manual*, Version 2 (APM v2), October 2014 Edition, a seasonal adjustment factor of 1.065 is applied to through and U-turn volumes along Highway 99W. This adjustment is applied to estimate the 30th highest hour for the year, which typically occurs during July or August in the Newberg vicinity. Details of the adjustment calculations and data from Automatic Traffic Recorder (ATR) station 36-004 are provided in the Appendix.

Figures 3A, 3B, 3C, and 3D present a summary of the system peak hour volumes: the volumes as counted, the seasonal adjustments applied, and the adjusted existing intersection volumes.

Crash Analysis

Intersection Crash Analysis

When evaluating the relative safety of an intersection, consideration is given not only to the total number and types of crashes occurring, but also to the number of vehicles entering the intersection. This leads to the concept known as “crash rate,” typically expressed in terms of the number of crashes occurring per one million vehicles entering the intersection (MEV). Intersections having a crash rate less

than 1.0 crashes/MEV are considered relatively safe. At crash rates higher than 1.0 crashes/MEV, consideration may be given to correcting operational problems.

For this analysis, annual traffic entering each study area intersection is estimated by multiplying the average annual daily traffic (AADT) entering the intersection by 365. AADT is estimated by multiplying the intersection weekday PM peak hour total volume by a factor, a typical method of estimating daily traffic. The most recent ODOT ATR daily volume count (2013 data) on Highway 99W just west of Brutscher Street is approximately 11.4 times the recent (October 2014) PM peak count volumes, so a factor of 11.5 is applied to the seasonally adjusted 2014 intersection volumes as an approximation method for this area.

Crash data for the study area intersections were obtained from the ODOT Zigzag data portal for the five-year period spanning January 2009 through December 2013. The following table presents calculated crash rates at the study intersections for the data period. Crash data are presented in the Appendix.

TABLE 2 – INTERSECTION CRASH ANALYSIS 2009-2013

Intersection		Total Crashes	Crash Types			Worst Injury Severity				AADT	Crash Rate
			Angle/ Turn	Rear-End/ Sideswipe	Other	A	B	C	PDO		
1	Highway 99W / Springbrook Road	86	14	70	2	1	3	31	51	51,175	0.92
2	Highway 99W / Fred Meyer West (Right-In) Driveway	0	0	0	0	0	0	0	0	18,538 *	0
3	Highway 99W / Fred Meyer East (Right-In Right-Out) Driveway	0	0	0	0	0	0	0	0	16,192 **	0
4	Highway 99W / Brutscher Street	27	4	22	1	1	3	12	11	41,262	0.36
5	Springbrook Road / Fred Meyer Driveway	0	0	0	0	0	0	0	0	13,248	0
9	Brutscher Street / Fred Meyer North Driveway	6	3	3	0	0	0	3	3	8,556	0.38
12	Springbrook Road / Hayes Street	1	0	1	0	0	0	1	0	10,281	0.05

* Includes only traffic involved in the turning movement, so only eastbound volumes at this location.
** Includes only traffic involved in the turning movements, so only eastbound and northbound volumes at this location.

All study area intersections have crash rates less than 1.0 crashes/MEV, so no further review is merited at these locations based on crash rates. A majority of crashes in the data set are coded as rear-end types, which are common at signalized intersections and difficult to mitigate. No fatalities are noted in the data set; the worst injury severity noted is "InjA – Incapacitating Injury," which occurred twice in five years. A majority of crashes were "PDO – property damage only" with no reported injuries.

SPIS Review

ODOT maintains a Safety Priority Index System (SPIS) to identify the state highway segments exhibiting the most severe safety needs. Specific to the study area for this analysis, two Highway 99W segments are noted in the 2013 SPIS listing; a copy of the listing is provided in the Appendix. The following table provides a summary of the relevant segments.

TABLE 3 – TOP 10% SPIS SEGMENTS

Location	Beginning MP	End MP	ADT	Crashes	SPIS Score	SPIS Rank
Brutscher Street	21.71	21.87	34,100	19	48.88	Top 10%
Leg (to N Springbrook Road)	21.95	22.14	38,500	56	66.79	Top 5%

For reference, the Brutscher Street intersection is located at MP 21.80, and the Springbrook Road intersection is located at MP 22.05. It is anticipated ODOT staff may identify crash patterns or safety concerns within the study area, particularly within the identified SPIS segments, during TIA review. If this occurs, the merits of potential mitigation measures will be addressed at that time.

III. PRE-DEVELOPMENT CONDITIONS

Future traffic conditions without the proposed fuel facility expansion are addressed as pre-development conditions. These include anticipated changes to intersection volumes and to roadway conditions.

Background Growth

General growth in traffic volumes not related to specific projects is termed background growth. Review of 2008-2013 data from the ODOT ATR 36-004 indicates traffic volumes have grown slowly—at less than 1% per year—since the last economic downturn. ODOT Future Volume Tables, however, suggest a 2.1% annual growth rate is anticipated at ATR 36-004 from 2013 to 2033. As a conservative estimate, 2.0% background growth is applied to the adjusted existing intersection volumes to estimate 2015 pre-development volumes. Figures 4A and 4B presents background growth from 2014 to 2015 for a typical weekday PM peak hour and Saturday mid-day peak hour.

In-Process Traffic

Traffic volumes generated by approved projects not yet completed at the time of analysis is termed in-process traffic. One project, likely to add trips to the study area, was identified by City of Newberg staff is Springbrook Ridge Apartments, located at the northeast corner of the Springbrook Road/E 2nd Street-Fernwood Road intersection. Study area traffic for the project was estimated based on the September 25, 2013, Traffic Impact Analysis prepared by Associated Transportation Engineering & Planning, Inc.; trip details from this TIA are provided in the Appendix.

Figures 5A and 5B present the in-process trips for the current study area intersections. Saturday trips are estimated based on the Saturday peak hour of the generator regression equation provided for ITE Land Use Code 220 – Apartments. It is assumed 10% of the apartment trips traveled to and from the Fred Meyer store. The remaining trips traveling on Springbrook Road and Brutscher Street are distributed according to current traffic patterns.

Planned Improvements

The Newberg-Dundee Bypass Project, when fully completed, will shift through traffic away from the existing Highway 99W alignment. Construction funding and dates for the full bypass are uncertain, but Phase 1 of the project, from west Dundee to Highway 219 in Newberg, is under construction and is anticipated to be complete by 2017 according to ODOT staff estimates. The Bypass project will provide the following improvements within the TIA study area:

- At the Highway 99W/Springbrook Road intersection:
  - Add a second westbound left-turn lane
  - Add a second southbound receiving lane (for 300 feet)
  - Rebuild the traffic signal

- Along Springbrook Road between Highway 219 and Highway 99W:
  - Widen to a three-lane section
  - Provide a shared pedestrian-bicyclist path

The City of Newberg *2013-2014 Capital Improvement Program* (April 2013) does not identify any transportation projects funded for completion within the TIA study area and study analysis years.

Pre-Development Volumes

Pre-development volumes for 2015, the anticipated year of the fuel facility expansion, are the sum of the adjusted existing volumes, background growth, and in-process traffic. Figures 6A and 6B present the 2015 pre-development traffic volumes.

IV. SITE DEVELOPMENT

The proposed development will expand the existing fuel facility from 14 to 18 vehicle fueling positions (VFPs). An extension of the canopy to the south to cover the additional fuel dispensers will result in a loss of five existing parking spaces; overall site parking minimums will still be met, however.

Trip Generation

Trip generation estimates for the proposed fuel facility expansion are prepared using average trip rates from Land Use Code 944 – Gasoline/Service Station in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 9th Edition (2012) and the ITE *Trip Generation Handbook*, 3nd Edition (2014). Due to the nature of the fuel facility, no alternate trip modes are assumed. No large trucks are anticipated to use the fuel facility other than for fuel delivery.

ITE estimates a fuel facility expansion of four VFPs will generate 674 additional weekday trips, including 55 additional trips during the weekday PM peak hour.

ITE does not provide Saturday data for Gasoline/Service Station (Code 944), so Saturday peak hour trips are estimated as 16% greater than the weekday PM peak hour trips. The percentage is based on 2002 trip data from other Pacific Northwest Fred Meyer fuel facilities that indicated Saturday peak hour trip generation was approximately 16% greater than weekday PM peak hour trip generation. A copy of the Fred Meyer fuel facility trip data may be provided upon request. According to this factor, a fuel facility expansion of 4 VFPs will generate 64 Saturday peak hour trips.

Trip Types

ITE estimates the total number of vehicle trips to and from the fuel facility. Total trips are divided into internal, pass-by, diverted linked, and primary trips below.

Fred Meyer stores offer a per-gallon discount on fuel purchases to Rewards Card Members. Trip data from Fred Meyer trip surveys indicate internal trip rates of 35% to 52% at fuel facilities sited adjacent to Fred Meyer stores. As a conservative estimate the internal trip rate is estimated as 20% of the total trips to match the value applied in our March 2009 TIA for the existing fuel facility.

The percentages for the other trip types are determined based on Table F.36 of the ITE *Handbook*, specifically from the six surveys that include separate data for primary and diverted linked trips. Consistent with ITE procedures, the rates for pass-by, diverted linked, and primary trips are applied to the external trips remaining after subtracting the internal trips.

The following summarizes the trip type splits applied to this analysis.

TABLE 4 – TRIP TYPES

Trip Types:	Internal Trips	External Trips		
		Pass-By	Diverted Linked	Primary
% of Total Trips:	20%	41.6%	27.6%	10.8%
% of External Trips:		52%	34.5%	13.5%

ITE provides trip type values only for the weekday AM and PM peak hours, so the weekday PM peak hour trip types are applied to the typical weekday and Saturday peak hour trip estimates.

Internal Trips

In a development such as Fred Meyer, many customers take advantage of the multiple services and retailers at the site in a single trip. These are known as shared or internal trips. For purposes of this analysis, internal trips will remain on the Fred Meyer site and will not add to traffic volumes at site driveways or on public roadways. As noted above, internal trips are estimated as 20% of the total trips. The remaining 80% of the total trips are considered external trips because they add to traffic volumes at or beyond site driveways.

Pass-By Trips

Pass-by trips are those site trips already driving past the site on the adjacent roadways. These trips do not increase the total traffic volumes on the roadways, but do add to turning movement volumes at the site accesses. A pass-by trip to other uses at the site that also stops at the fuel facility is considered an internal trip. The ITE *Handbook* indicates an average pass-by percentage of 52% during the weekday PM peak hour (calculated as noted above). This rate is applied to the Saturday midday peak hour as well.

The Fred Meyer site accesses Highway 99W, Springbrook Road, Brutscher Street, and Little Oak Street. Existing volumes on Little Oak Street are much lower than those on the other roadways, and most through traffic on Brutscher Street also travels on Highway 99W, so pass-by trips are assumed to be drawn only from existing traffic volumes approaching the study area on Highway 99W and Springbrook Road.

Diverted Linked Trips

Diverted linked trips are those site trips already traveling in the site vicinity on roadways other than those immediately adjacent to the site. These vehicles change their direction or route to access the site. The ITE *Handbook* estimates an average diverted linked trip rate of 34.5% during the weekday PM peak hour. This rate is applied to the Saturday midday peak hour as well.

Parallel routes near the proposed fuel facility include Highway 219-E 1st Street, E 2nd Street-Fernwood Road, Elliott Road, Providence Drive-Werth Boulevard, and Benjamin Road, so diverted linked trips could be drawn from these roadways. However, because trips from any of these roadways would likely use Highway 99W, Springbrook Road, or Brutscher Street to access the fuel site, diverted linked trips are treated together with primary trips.

Primary Trips

Primary trips are those site trips stopping only at the fuel facility and then returning to their point of origin. These are considered new trips generated by the expansion. The ITE *Handbook* indicates an average pass-by percentage of 13.5% during the weekday PM peak hour (calculated as noted above). This rate is applied to the Saturday midday peak hour as well. When treated together with the diverted linked trips, the primary trips represent 48% of the external site trips.

Summary

The following table summarizes the trip generation estimates for the proposed Fred Meyer fuel facility expansion from 14 to 18 VFPs.

TABLE 5 – TRIP GENERATION CHARACTERISTICS – GASOLINE/SERVICE STATION (ITE CODE 944)							
Trip Type (Rate)	Daily (ADT)	Weekday PM Peak Hour			Saturday Midday Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Total Trips	674	27	28	55	32	32	64
Internal Trips (20%)	*135*	*5*	*6*	*11*	*7*	*6*	*13*
External Trips (80%)	539	22	22	44	25	26	51
Pass-By Trips (52%)	*280*	*11*	*12*	*23*	*13*	*14*	*27*
Diverted Linked + Primary Trips (48%)	259	11	10	21	12	12	24

The fuel facility expansion will generate 259 additional diverted linked+primary trips during a typical weekday, including 21 additional diverted linked+primary trips in the weekday PM peak hour, and will generate 24 additional diverted linked+primary trips during the Saturday midday peak hour.

Trip Distribution and Assignment

Trip distribution is addressed differently according to trip type. Note due to driveway movement restrictions all external trip paths to/from the south are assumed to travel via Brutscher Street and/or Hayes Street.

Internal Trips

Internal trips remain on the Fred Meyer site. Based on review of historical aerial imagery, a majority of on-site vehicles park near the Fred Meyer store entrances, which are accessed from the Main Drive Aisle between the West (Right-In Only) Access and the East (Right-In/Right-Out) Access intersections. All the internal trips added with the proposed fuel facility expansion are assigned to travel to/from these parking areas. Figures 7A and 7B present the internal trip assignments.

Pass-By Trips

The pass-by trips are distributed based on the proportions of traffic approaching the study area in the October 2014 counts from four approaches:

- Westbound Highway 99W at Brutscher Street
- Southbound Springbrook Road at Highway 99W
- Eastbound Highway 99W at Springbrook Road
- Northbound Springbrook Road at the Fred Meyer Driveway

The weekday PM peak hour and Saturday midday peak hour distributions are both estimated as follows:

- 45% from westbound Highway 99W
- 15% from southbound Springbrook Road
- 30% from eastbound Highway 99W
- 10% from northbound Springbrook Road

Figures 8A and 8B present the pass-by trip distributions and assignments. Negative values identify movements from which trips have been rerouted.

Primary Trips

Trip distribution for primary trips is based on previous studies prepared for the Newberg Fred Meyer store and fuel facility. The distributions are estimated as follows:

- 15% to and from the east on Highway 99W
- 25% to and from the north on Springbrook Road
- 35% to and from the west on Highway 99W
- 25% to and from the south on Springbrook Road or Brutscher Street

Figures 9A and 9B present the primary trip distribution and assignments.

Total Trips

Figures 10A and 10B present the total trip impact anticipated with the proposed fuel facility expansion, or the sum of internal trips, pass-by trips, and primary trips.

Post-Development Volumes

Post-development volumes for 2015, the anticipated year of the fuel facility expansion, are the sum of the 2015 pre-development volumes and the total site trip assignment. Figures 11A and 11B present the 2015 post-development traffic volumes.

Post-develop volumes for 2017, the anticipated year of the Newberg-Dundee Bypass Project Phase 1 completion, are based on Figure 3A (2011 Existing Traffic Conditions) of the September 2011 Phase 1 Technical Report Addendum Memorandum by Kittelson & Associates, Inc., and Figure 7 (Year 2016 Phase 1 Scenario) of their July 2012 Analysis TIS. The reroute of traffic with the bypass is presented in Figure 12, based on the difference in the volumes identified for the intersection of Highway 99W with Springbrook Road.

The Kittelson memo addresses only weekday PM peak hour conditions, so Saturday conditions are not addressed for 2017 scenarios. Figure 13 presents the 2017 post-development traffic volumes, which is the addition of the reroute volume to Post-Development 2015 volumes.

V. CIRCULATION EVALUATION

Fuel Facility Circulation

At the existing fuel facility customer traffic flows one way (east to west) past the dispensers, and all vehicles are directed to turn left upon exiting the canopy area to circulate in a counterclockwise fashion back to the Fuel Drive Aisle and then to the Main Drive Aisle. Customers are discouraged from using the loading area behind the Fred Meyer store as an alternative to the Main Drive Aisle. This circulation pattern is anticipated to continue with the proposed expansion.

On-Site Intersections

Traffic circulation for the fuel facility includes access on the Main Drive Aisle just west of the Fred Meyer store and across from the US Bank site. For purposes of this analysis, the Main Drive Aisle/US Bank/Fuel Drive Aisle intersection treats the Fuel Drive Aisle as intersecting opposite the nearest US Bank exit aisle and the only US Bank entry aisle. Due to the offset of the US Bank entry aisle, the eastbound left turn lane extends into the intersection, across the Fuel Drive Aisle. This intersection is all-way stop controlled to maintain low speeds and to rotate right-of-way among the approaching vehicles. As is shown in the Intersection Analysis section, delays at this intersection are currently well within the standard and are anticipated to remain so with the fuel facility expansion. No changes to the intersection configuration are proposed with the fuel facility expansion.

When the current fuel facility was developed two pedestrian crosswalks between the US Bank and Fred Meyer store were added—one crossing the Main Drive Aisle and one crossing the Fuel Drive Aisle—as an alternative to the prior angled crosswalk through the middle of the Main Drive Aisle/US Bank/Fuel Drive Aisle intersection. These two newer crosswalks serve to reduce vehicles' pedestrian delay and to provide a more predictable pedestrian route.

When the current fuel facility was developed, the Main Drive Aisle/West (Right-In) Driveway intersection was modified to provide all-way stop control (the Main Drive Aisle previously moved freely) and to widen the southbound approach entering from Highway 99W. These improvements serve to maintain low speeds, to rotate right-of-way among the approaching vehicles, and to maintain lower delays and queues on the southbound approach than might otherwise occur. As is shown in the Intersection Analysis section, delays at this intersection are currently well within the standard and are anticipated to remain so with the fuel facility expansion. No changes to the intersection configuration are proposed with the fuel facility expansion.

The Main Drive Aisle/East (Right-In/Right-Out) Driveway intersection currently operates with stop control on the two entering approaches (southbound from Highway 99W and westbound from Brutscher Street) while the exiting (eastbound) approach moves freely. This configuration was in place prior to the current fuel facility's development and is not proposed to change with the fuel facility expansion. As is shown in the Intersection Analysis section, delays at this intersection are currently well within the standard and are anticipated to remain so with the fuel facility expansion. (Note a modification was required to generate results compatible with the analysis methodology.)

Fuel Delivery Truck

The fuel delivery truck currently circulates as shown on the two truck turning path exhibits by Barghausen Consulting Engineers (provided in Appendix A). The truck currently enters from the site driveway on Little Oak Street, arriving from Brutscher Street, and then travels through the loading area

behind the store to the fuel facility. Fuel delivery trucks exit through the same route. This route will be maintained with the expansion, as it minimizes conflicts between pedestrians and customer vehicle traffic.

Note the fuel delivery truck does not currently travel to/from south of the Fred Meyer site on Brutscher Street, Hayes Street, or any other local residential roadways. The segment of Little Oak Street between the Fred Meyer Driveway and Brutscher Street lies substantially within the contiguous Springbrook Oaks Office Building commercial parcel, not within public right-of-way. Fuel deliveries currently occur approximately once every two to three days, and no significant increase in delivery frequency is anticipated with the proposed fuel facility expansion. While parked and offloading fuel, the delivery truck may partially impede some vehicle fueling positions, as it does currently, but adequate width will remain on all sides for circulation around the truck. Overall, with fuel deliveries taking place just a few times per week, the impacts of the fuel truck will be negligible.

Access Review

The Fred Meyer site currently has six driveways: two on Highway 99W, one on Springbrook Road, two on Brutscher Street, and one on Little Oak Street. No changes are proposed to any of the driveways with the fuel facility expansion.

The West (Right-In) Driveway on Highway 99W is located approximately 465 feet east of Springbrook Road, and the East (Right-In Right Out) Driveway is located approximately 490 feet west of Brutscher Street, as measured between centerlines; the distance between the driveways is approximately 405 feet. Approach permits for both driveways are on file with ODOT. Both are limited to right turns by a median and have right turn deceleration lanes on the highway.

The Springbrook Road driveway is located approximately 400 feet south of Highway 99W, as measured between centerlines. Movements are limited to right turns by a median.

The North Driveway on Brutscher Street is located approximately 330 feet south of Highway 99W, as measured between centerlines, opposite a driveway accessing Columbia Bank. All movements are permitted.

Sight Distance Review

Our March 2009 TIA evaluated intersection sight distance at the three Fred Meyer exit driveway locations analyzed in this current TIA. In all cases, available sight distance was identified as meeting or exceeding the minimums recommended by the American Association of State Highway and Transportation Officials' (AASHTO) *A Policy on Geometric Design of Highways and Streets*. No changes to the driveway exits are noted since the time of the prior sight distance evaluation; only the posted speed on Highway 99W appears to be different: previously it was 40 mph, and now it is 35 mph, for which a lower sight distance minimum is recommended.

Evidence suggests intersection sight distance standards are met or exceeded at the Fred Meyer site driveways. This assertion may be confirmed upon request.

VI. INTERSECTION ANALYSIS

Operations Analysis

Intersection capacity calculations were prepared using methodologies presented in the Transportation Research Board's *Highway Capacity Manual* 2000 Edition (HCM 2000). Trafficware's Synchro software, Version 8, which implements HCM methodologies, was used to prepare the capacity and level-of-service calculations. Copies of the Synchro HCM reports are provided in the Appendix.

Performance Measures and Standards

The HCM generally assesses intersection capacity characteristics by three measures of effectiveness (MOEs): volume-to-capacity (v/c) ratio, level of service (LOS), and control delay per vehicle (delay).

V/c ratio is a measurement of the theoretical capacity used by a specific traffic volume or for an entire intersection. It is calculated as the traffic demand volume divided by the theoretical capacity.

LOS is a relative measure of the average control delay (in seconds per vehicle) experienced by drivers at an intersection and is described by a letter on the scale from A to F. The HCM defines LOS grades according to delay thresholds. Qualitatively speaking, LOS A represents optimum operating conditions and minimum delay while LOS F indicates long delays and, often, over-capacity conditions.

The City of Newberg uses LOS to evaluate intersection performance on city roadways. Table 5-1 of the *Newberg Transportation System Plan* (TSP), June 2005 Edition, indicates the operational standard for signalized intersections is LOS D and the operational standard for unsignalized intersections is LOS E. In addition, any intersection operating at or above capacity (i.e., with a v/c ratio equal to or greater than 1.00) is considered to be operating unacceptably, even if the LOS standard is met.

ODOT uses v/c ratio to assess capacity on state roadways. Table 6 of Policy 1F in the *Oregon Highway Plan*, as updated through December 21, 2011, provides the v/c standards outside the Portland metropolitan region. The study area intersections lie within the Newberg urban growth boundary (UGB) and along a Statewide Highway designated as a Freight Route with a posted speed of 35 mph, so the applicable ODOT target is a v/c ratio of 0.85. When the Newberg-Dundee Bypass Project is completed in the future, the Newberg TSP anticipates the current Highway 99W alignment will be classified as a District Highway (and, presumably, not a Freight Route), so the future ODOT v/c target is assumed to be 0.95 for the study area intersections.

Traffic Signals

The Highway 99W traffic signals in the study area are owned and maintained by ODOT, and the Springbrook Road/Hayes Street intersection traffic signal is owned and maintained by the City of Newberg. Copies of the current signal plans and timings were obtained from agency staff and are provided in the Appendix. These current signal timing plans were applied to the Synchro analysis models. Optimized inputs were applied at the Springbrook Road/Hayes Street intersection in lieu of current timing plans, which were unavailable from the City at the time of this TIA issuance date.

The Springbrook Road/Highway 99W and Brutscher Street/Highway 99W intersections in the 2017 Post Development were optimized to accommodate the change in traffic volumes caused by the proposed bypass project as well as the addition of a second westbound left turn lane.

The ODOT APM Version 2, October 2014 Edition, requires traffic analyses use the current edition of the HCM (2010 in this case) unless otherwise specified in the APM. Chapter 2.5.1 notes HCM 2000 methodology may be used to produce intersection v/c ratios, which are not provided in HCM 2010 Synchro output reports. It is also noted the 2010 methodology does not model u-turns, and requires modifications to detector loops ((Typical ODOT detector templates for highway through lanes do not include stop bar detection)For these reasons, the analysis has been prepared using HCM 2000 methodology in the Synchro and SimTraffic software program.

Analysis Reporting and Results

Operations analysis is presented for the following scenarios:

- 2014 Existing
- 2015 Pre-Development (without expansion)
- 2015 Post-Development (with expansion)
- 2017 Post-Development (with expansion) with Newberg-Dundee Bypass Phase 1 complete (PM only)

At signalized study area intersections the v/c ratio, LOS, and delay are reported for the overall intersection. At unsignalized intersections the v/c ratio, LOS, and delay are reported for the critical approach lane. Where standards are exceeded, discussion is provided in the following section. The following table presents the operational analysis calculation results for the weekday PM peak hour.

TABLE 6 – INTERSECTION OPERATION ANALYSIS						
Intersection		Time Period	2014 Existing	2015 Pre	2015 Post	2017 Post
1	Highway 99W / Springbrook Road	PM	**0.87-D-38.6**	**0.89-D-39.8**	**0.90-D-40.1**	0.89-D-47.2
		SAT	0.83-C-31.1	0.85-C-32.4	**0.86-C-32.8**	
3	Highway 99W / Fred Meyer East (Right-In Right-Out) Driveway	PM	0.03-A-9.5	0.03-A-9.5	0.04-A-9.5	0.04-A-9.7
		SAT	0.03-A-9.8	0.03-A-9.9	0.04-A-10.0	
4	Highway 99W / Brutscher Street	PM	0.83-C-28.9	0.85-C-29.9	0.85-C-30.6	0.84-C-34.2
		SAT	0.76-C-20.9	0.77-C-21.4	0.77-C-21.7	
5	Springbrook Road / Fred Meyer Driveway	PM	0.57-C-17.3	0.57-C-17.7	0.59-C-18.3	0.85-E-43.3
		SAT	0.45-B-13.7	0.46-B-14.0	0.48-B-14.4	
6	Main Drive Aisle / US Bank / Fuel Drive Aisle	PM	0.52-B-11.9	0.52-B-11.9	0.55-B-13.0	0.55-B-13.0
		SAT	0.49-B-10.9	0.49-B-10.9	0.53-B-11.9	
7	Main Drive Aisle / West (Right-In) Driveway	PM	0.31-A-9.4	0.31-A-9.5	0.32-A-9.7	0.32-A-9.7
		SAT	0.30-A-9.6	0.30-A-9.6	0.32-A-9.9	
8	Main Drive Aisle / East (Right-In Right-Out) Driveway	PM	0.39-A-8.5	0.39-A-8.5	0.40-A-8.6	0.40-A-8.6
		SAT	0.34-A-8.4	0.34-A-8.5	0.39-A-8.6	
9	Brutscher Street / Fred Meyer North Driveway	PM	0.54-C-20.7	0.56-C-22.2	0.57-C-22.4	0.57-C-22.4
		SAT	0.45-B-14.9	0.47-C-15.4	0.48-C-15.6	
12	Springbrook Road / Hayes Street	PM	0.40-A-8.7	0.41-A-8.7	0.42-A-8.8	0.63-A-9.7
		SAT	0.25-A-7.5	0.27-A-7.4	0.27-A-7.6	

All private on-site intersections and all study area intersections under City of Newberg jurisdiction are anticipated to operate at acceptable levels of service (LOS D or better) in all analysis scenarios. The Springbrook Road/Highway 99W intersection under ODOT jurisdiction, by contrast, is anticipated to operate beyond acceptable v/c ratios in several analysis scenarios. Overall, however, the additional fuel facility expansion trips have little impact on intersection capacity or delay, and all intersections will operate well under capacity. With the by pass Phase 1 project, the v/c will be the same or better as 2015 Pre-Development conditions at the Highway 99 signalized intersections. It is also noted, the ODOT v/c standard will be revised from 0.85 to 0.95 with the full by pass project.

Queuing Analysis

Intersection queuing was evaluated to estimate the queue demand for each signalized approach lane along the Fred Meyer frontage and for the two Fred Meyer driveway entrances from Highway 99W. In accordance with Chapter 2.5.1 of the ODOT APM v2, October 2014 Edition, queues were estimated using a simulation software, specifically Trafficware's SimTraffic Version 8, to model interactions among signalized intersections within the study area. The SimTraffic 95th percentile queues during the 2015 and 2017 analysis scenarios are compared to the available storage.

The following tables present the available queue storage and the anticipated queue demand values for the weekday PM peak hour and Saturday midday peak hour. Available storage is measured from recent

aerial photographs and is rounded to the nearest 5 feet. SimTraffic queue demand results are rounded to the nearest 25 feet. Copies of the SimTraffic Queue Reports are provided in the Appendix.

TABLE 7 – INTERSECTION QUEUING ANALYSIS – WEEKDAY PM PEAK HOUR							
Intersection		Approach	Lane Group	Available Storage	2015 Pre	2015 Post	2017 Post
1	Highway 99W / Springbrook Road	NB	Lt	275	**325**	**400**	275
			Th	300	**1050**	**1050**	175
			Rt	195	**350**	**375**	**225**
4	Highway 99W / Brutscher Street	EB	Th	365	**450**	**475**	**525**
		NB	Lt	235	**375**	225	**400**
			Th/Rt	235	175	125	**300**
7	Main Drive Aisle / West (Right-In) Driveway	SB	Lt	80+	50	50	50
			Rt	80+	50	75	75
8	Main Drive Aisle / East (Right-In Right-Out) Driveway	SB	Lt/Rt	210	50	50	50

TABLE 8 – INTERSECTION QUEUING ANALYSIS – SATURDAY MIDDAY PEAK HOUR							
Intersection		Approach	Lane Group	Available Storage	2015 Pre	2015 Post	2017 Post
1	Highway 99W / Springbrook Road	NB	Lt	275	225	275	-
			Th	300	250	300	-
			Rt	195	150	200	-
4	Highway 99W / Brutscher Street	EB	Th	365	**425**	**400**	-
		NB	Lt	235	225	**275**	-
			Th/Rt	235	100	150	-
7	Main Drive Aisle / West (Right-In) Driveway	SB	Lt	80+	50	50	-
			Rt	80+	75	50	-
8	Main Drive Aisle / East (Right-In Right-Out) Driveway	SB	Lt/Rt	210	50	50	-

Springbrook Road at Highway 99W

The northbound approach of Springbrook Road to Highway 99W is currently striped for four lanes; two left lanes, one through lane, and one right lane. The two left lanes have approximately 275 feet of storage each, and the right lane has 195 feet of storage. The through lane provides approximately 300 feet of storage back to the Fred Meyer access.

The analysis indicates queue lengths for all Pre/Post Development lane group movements exceed available storage for the weekday PM peak hour with the current ODOT signal timing. The Pre/Post Development through movement queues for the weekday PM peak hour extends beyond the Fred

Meyer access. Therefore vehicles in the Fred Meyer driveway may need to wait for the queue to clear before proceeding with right turns, which does not impact the public street operation.

With the addition of traffic on Springbrook Road with the Phase 1 By pass project, it is anticipated the signal timing will be adjusted to provide more time for the northbound Springbrook Road approach, such that vehicle queues will be significantly reduced. This is reflected in the table above.

Highway 99W at Brutscher Street

The eastbound approach along Highway 99W is currently striped for four lanes; one left lane, two through lanes, and one right lane. The through lanes have approximately 365 feet of available storage. The northbound approach is currently striped for two lanes; one left lane and one through/right turn lane. Both northbound lanes have approximately 235 feet of storage. A Fred Meyer RIRO access is located approximately 400 feet west of Brutscher Street.

Queuing analysis for all weekday PM peak hour and Saturday mid-day peak hour scenarios show eastbound through and northbound left turn storage may be exceeded at times. The addition of fuel expansion trips has little impact on these queues.

Main Drive Aisle at West (Right-In) Driveway

The southbound right-in driveway approach is currently striped for one left turn lane and one turn right lane. Both of these lanes have 80 feet of available storage and an additional 180 feet of storage from the edge of the driveway crosswalk to the north to the point where the left and right turn lanes form.

The analysis indicates available storage for southbound left turning vehicles is adequate for all weekday PM peak hour and Saturday mid-day peak hour scenarios.

Main Drive Aisle at East (RIRO)

The RIRO driveway's southbound approach is striped for a single left/right turn lane and has 210 feet of available storage. This lane storage is adequate for all scenario queues.

VII. SUMMARY AND RECOMMENDATIONS

This Transportation Impact Analysis (TIA) has been prepared to address the potential impacts of the proposed Fred Meyer fuel facility expansion in Newberg, Oregon. The site is zoned Community Commercial (C-2) in which the existing fuel facility was approved as a conditional use in September 2010. The current application represents an update to the prior conditional use approval.

The existing fuel facility provides 14 vehicle fueling positions (VFPs) at the west side of the Fred Meyer Newberg store near its driveway accessing Springbrook Road. The proposed expansion will add four VFPs by extending the canopy over two new fuel dispensers on the south side of the existing facility. No new driveways or changes to existing driveways are proposed. Construction is planned to occur in one phase, and completion is expected in 2015.

This TIA addresses impacts of the proposed fuel facility expansion on the surrounding roadways, the Fred Meyer site driveways, and the Fred Meyer internal circulation system. Analyses are presented to address both City of Newberg and Oregon Department of Transportation (ODOT) requirements. Impacts are addressed for the weekday PM Peak Hour and Saturday Midday Peak Hour. Conditions with the Phase 1 By pass project are included for the PM Peak Hour, anticipated for 2017.

The overall site accesses the public roadway system at six locations, four of which will typically be used by fuel facility customers. The two other site driveways provide full movement access to Brutscher Street and Little Oak Street. All Fred Meyer site driveways are stop controlled. The Fred Meyer on-site intersections are all-way stop controlled, except the eastbound Main Drive Aisle approach to the East Driveway (right-in/right-out) operates freely.

Sidewalks and bicycle lanes are currently provided throughout most of the study area, including along the entire Fred Meyer site frontage. The exception is a portion of Springbrook Road south of the Fred Meyer site frontage where a separated paved path along the west side of the roadway provides the path for pedestrians and bicyclists. Yamhill County Transit Area (YCTA) operates three bus routes serving Newberg, with Routes 44 and 7 providing service at or adjacent to Fred Meyer.

Turning movement count data were collected at study area intersections during the weekday PM peak period (4:00-6:00 PM) and during the Saturday midday peak period (11:00 AM-2:00 PM) on October 16 and 18, 2014, respectively. The system peak hours were identified as 4:00-5:00 PM (weekday) and 1:00-2:00 PM (Saturday) for this analysis. These volumes were adjusted in accordance with ODOT procedures to estimate the 30th highest hour for the year, which typically occurs during July or August in the Newberg vicinity.

Crash data for the study area intersections were obtained from ODOT for the five-year period spanning January 2009 through December 2013. All study area intersections have crash rates less than 1.0 crashes/MEV, so no further review or mitigation is merited. A majority of crashes in the data set are coded as rear-end types, which are common at signalized intersections and difficult to mitigate.

Future traffic conditions without the proposed fuel facility expansion are addressed as pre-development conditions, and include background growth at 2% per year plus in-process trips added to existing traffic volumes. Only one in-process project was noted by City staff: Springbrook Ridge Apartments, located at the northeast corner of the Springbrook Road/E 2nd Street-Fernwood Road intersection.

The Newberg-Dundee Bypass Project, when fully completed, will shift through traffic away from the existing Highway 99W alignment. Construction funding and dates for the full bypass are uncertain, but

Phase 1 of the project, from west Dundee to Highway 219 in Newberg, is under construction and is anticipated to be complete by 2017 according to ODOT staff estimates. The Phase 1 Bypass project will modify the Highway 99W/Springbrook Road intersection by adding a second westbound left-turn lane, second southbound receiving lane (for 300 feet) and rebuilding the traffic signal. No changes are proposed to other study area intersections that would affect the capacity or operation. Conditions in the PM peak hour for the 2017 condition with Phase 1 of the Bypass project are analyzed, and found to be within acceptable levels.

The proposed expansion of the fuel facility from 14 to 18 vehicle fueling positions (VFPs) is estimated to generate 674 additional weekday trips, including 55 additional trips during the weekday PM peak hour, and 64 Saturday peak hour trips. More than half of the trips visiting the fuel facility are expected to be from vehicles already at the Fred Meyer site or driving by on adjacent roadways.

With the fuel facility expansion, customer traffic flows will continue to be one way (east to west) past the dispensers, and all vehicles are directed to turn left upon exiting the canopy area to circulate in a counterclockwise fashion back to the Fuel Drive Aisle and then to the Main Drive Aisle. Customers are discouraged from using the loading area behind the Fred Meyer store as an alternative to the Main Drive Aisle. This circulation pattern is anticipated to continue with the proposed expansion.

All on-site intersections and driveways to the public streets are anticipated to continue operating at acceptable levels with the fuel expansion, and no changes to the intersection configurations are proposed.

The fuel delivery truck currently enters the site at the driveway on Little Oak Street, arriving from Brutscher Street, and then travels through the loading area behind the store to the fuel facility. Fuel delivery trucks exit through the same route. This route will be maintained with the expansion, as it minimizes conflicts between pedestrians and customer vehicle traffic. Fuel delivery trucks do not currently travel to/from south of the Fred Meyer site on Brutscher Street, Hayes Street, or any other local residential roadways.

Intersection capacity calculations were prepared using methodologies presented in the Transportation Research Board's Highway Capacity Manual, 2000 Edition (HCM 2000), and Trafficware's Synchro software, Version 8, which implements HCM methodologies. The City of Newberg uses LOS to evaluate intersection performance on city roadways, with the operational standard for signalized intersections a LOS D and the operational standard for unsignalized intersections a LOS E. ODOT uses v/c ratio to assess capacity on state roadways, with a ratio of 0.85 for this segment of Highway 99W. When the Newberg-Dundee Bypass Project is completed in the future, the Newberg TSP anticipates the current Highway 99W alignment will be classified as a District Highway, so the future ODOT v/c target is assumed to be 0.95 for the study area intersections.

The intersection of Highway 99W at Springbrook Road currently exceeds ODOT's 0.85 v/c standard, and will continue to do so with the addition of trips from the fuel facility and will the Phase 1 Bypass project. Overall intersection operation is still at a level of service D, and well under capacity, so meets the City of Newberg operational standards. With the full Bypass project, the reduction in traffic volumes and change to the ODOT standard are expected to result in operation meeting ODOT standards. For these reasons, no mitigation is recommended.

Intersection queuing was evaluated in accordance with ODOT standards utilizing Trafficware's SimTraffic Version 8, with 95th percentile queues reported. Queues at the Springbrook Road northbound approach to Highway 99W currently exceed the available storage lengths with the existing ODOT timing, but the

addition of site trips have little impact on the queue lengths. These queues lengths can be reduced with signal timing modifications, and will likely occur with the planned ODOT improvements with the Phase 1 Bypass project.

Queues on the eastbound Highway 99W approach to Brutscher Street extend beyond the existing Fred Meyer driveway. Because this is a right turn exit, vehicles will simply need to wait for queues to clear before entering the Highway. On the Brutscher Street approach to Highway 99W, vehicle queues are expected to occasionally extend to the first Fred Meyer driveway, but the addition of fuel facility trips will have little impact on the queue lengths.

Based on our analysis, the addition of fuel facility expansion trips will have little impact on the operation and queuing at study area intersections. No mitigation measures are recommended.

VIII. APPENDIX

A. Site Plans and Fuel Truck Routing

B. Traffic Volume Figures

C. Traffic Count Summaries

D. Seasonal Adjustment Factor Data and Calculations

E. In-Process Projects

F. Crash Data and SPIS Listing

G. Signal Plans and Timing Plans

H. Synchro HCM 2000 Reports

I. SimTraffic Queuing Reports

J. Transit Bus Line Schedules

K. Newberg Dundee Bypass Project Volumes

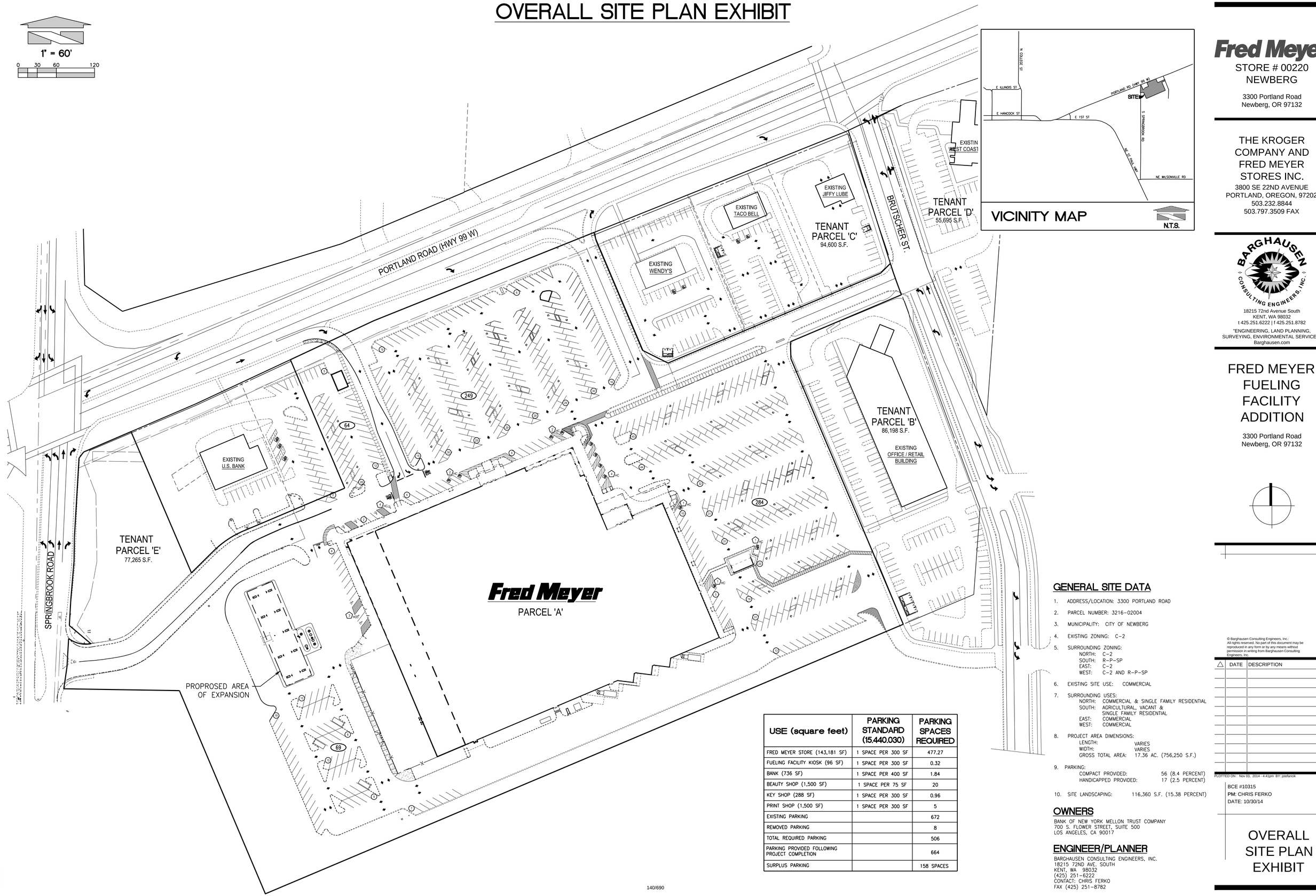
APPENDIX A

SITE PLANS AND FUEL TRUCK ROUTING

OVERALL SITE PLAN EXHIBIT

1" = 60'

0 30 60 120



VICINITY MAP N.T.S.

GENERAL SITE DATA

1. ADDRESS/LOCATION: 3300 PORTLAND ROAD
2. PARCEL NUMBER: 3216-02004
3. MUNICIPALITY: CITY OF NEWBERG
4. EXISTING ZONING: C-2
5. SURROUNDING ZONING:
   - NORTH: C-2
   - SOUTH: R-P-SP
   - EAST: C-2
   - WEST: C-2 AND R-P-SP
6. EXISTING SITE USE: COMMERCIAL
7. SURROUNDING USES:
   - NORTH: COMMERCIAL & SINGLE FAMILY RESIDENTIAL
   - SOUTH: AGRICULTURAL, VACANT & SINGLE FAMILY RESIDENTIAL
   - EAST: COMMERCIAL
   - WEST: COMMERCIAL
8. PROJECT AREA DIMENSIONS:
   - LENGTH: VARIES
   - WIDTH: VARIES
   - GROSS TOTAL AREA: 17.36 AC. (756,250 S.F.)
9. PARKING:
   - COMPACT PROVIDED: 56 (8.4 PERCENT)
   - HANDICAPPED PROVIDED: 17 (2.5 PERCENT)
10. SITE LANDSCAPING: 116,360 S.F. (15.38 PERCENT)

USE (square feet)	PARKING STANDARD (15.440.030)	PARKING SPACES REQUIRED
FRED MEYER STORE (143,181 SF)	1 SPACE PER 300 SF	477.27
FUELING FACILITY KIOSK (96 SF)	1 SPACE PER 300 SF	0.32
BANK (736 SF)	1 SPACE PER 400 SF	1.84
BEAUTY SHOP (1,500 SF)	1 SPACE PER 75 SF	20
KEY SHOP (288 SF)	1 SPACE PER 300 SF	0.96
PRINT SHOP (1,500 SF)	1 SPACE PER 300 SF	5
EXISTING PARKING		672
REMOVED PARKING		8
TOTAL REQUIRED PARKING		506
PARKING PROVIDED FOLLOWING PROJECT COMPLETION		664
SURPLUS PARKING		158 SPACES

OWNERS

BANK OF NEW YORK MELLON TRUST COMPANY
700 S. FLOWER STREET, SUITE 500
LOS ANGELES, CA 90017

ENGINEER/PLANNER

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVE. SOUTH
KENT, WA 98032
(425) 251-6222
CONTACT: CHRIS FERKO
FAX (425) 251-8782

Fred Meyer
STORE # 00220
NEWBERG

3300 Portland Road
Newberg, OR 97132

THE KROGER COMPANY AND FRED MEYER STORES INC.
3800 SE 22ND AVENUE
PORTLAND, OREGON, 97202
503.232.8844
503.797.3509 FAX

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72nd Avenue South
KENT, WA 98032
t 425.251.6222 | f 425.251.8782
"ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES"
Barghausen.com

FRED MEYER FUELING FACILITY ADDITION

3300 Portland Road
Newberg, OR 97132

© Barghausen Consulting Engineers, Inc.
All rights reserved. No part of this document may be reproduced in any form or by any means without permission in writing from Barghausen Consulting Engineers, Inc.

△	DATE	DESCRIPTION

PLOTTED ON : Nov 03, 2014 - 4:41pm BY: jstefanick

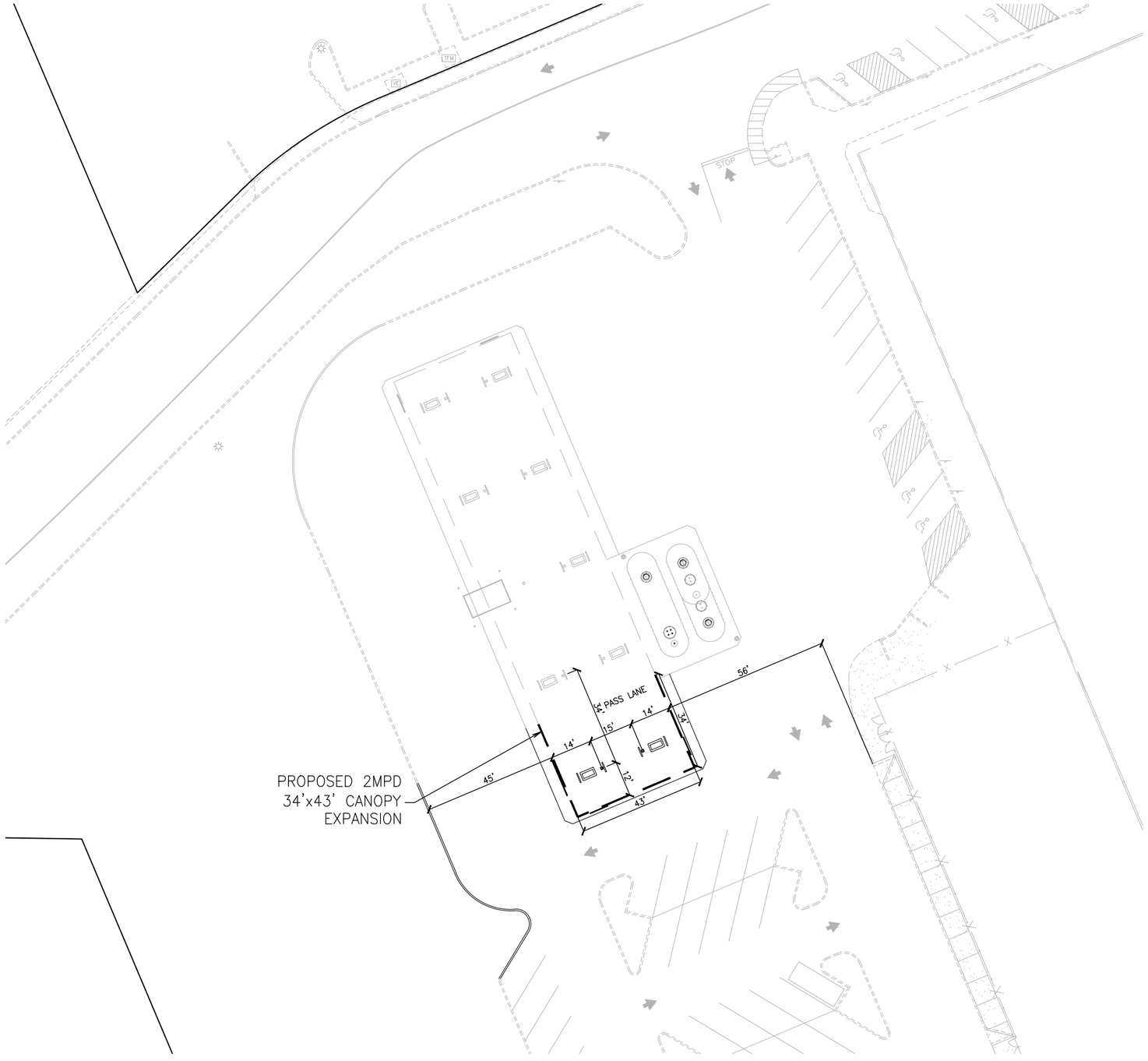
BCE #10315
PM: CHRIS FERKO
DATE: 10/30/14

OVERALL SITE PLAN EXHIBIT

DETAILED SITE PLAN

1" = 40'

0 10 20 40



LANDSCAPE AREA TO BE REMOVED = 612 SF

PARKING STATISTICS

EXISTING PARKING	554
PROPOSED PARKING DELETED	−5
PROPOSED PARKING ADDED	+0
PROPOSED TOTAL PARKING	549
REQUIRED PARKING = 507	

DISCLAIMER:

1. THIS PRELIMINARY SITE PLAN IS BASED ON – BY – DATED –. THIS PLAN HAS BEEN PREPARED WITHOUT THE BENEFIT OF COMPLETE ZONING INFORMATION OR CONFIRMATION OF SITE DEVELOPMENT STANDARDS AND THUS THE SITE DEVELOPMENT FEASIBILITY IS NOT IMPLIED OR GUARANTEED.

ATTACHMENT 4

Fred Meyer
STORE #00220
NEWBERG

3300 PORTLAND ROAD
NEWBERG, OR

THE KROGER CO.
AND FRED MEYER
STORES INC.
3800 SE 22ND AVENUE
PORTLAND, OREGON 97202
503.232.8844
503.797.3509 FAX

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72nd Avenue South
KENT, WA 98032
t 425.251.6222 | f 425.251.8782
"ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES"
Barghausen.com

FRED MEYER
CANOPY
EXPANSION

3300 PORTLAND ROAD
NEWBERG, OR

© Barghausen Consulting Engineers, Inc.:
All rights reserved. No part of this document may be reproduced in any form or by any means without permission in writing from Barghausen Consulting Engineers, Inc.

△	DATE	DESCRIPTION
-	-	-

PLOTTED ON - Mar 07, 2014 - 11:57am BY: jstefancik

BCE #10315
PM: CHRIS FERKO
DATE: 11/13/13

DD-2
DETAILED
SITE PLAN

File:P:\10000s\10315\preliminary\2013 Canopy Expansion\10315-dd2.dwg Date/Time:3/7/2014 11:57 AM Scale:1" = 1' JSTEFANCIK Xref: ----

DETAILED SITE PLAN

1" = 40'

0 10 20 40

LANDSCAPE AREA TO BE REMOVED = 612 SF

PARKING STATISTICS	
EXISTING PARKING	554
PROPOSED PARKING DELETED	−5
PROPOSED PARKING ADDED	+0
PROPOSED TOTAL PARKING	549
REQUIRED PARKING = 507	

DISCLAIMER:

1. THIS PRELIMINARY SITE PLAN IS BASED ON – BY – DATED –. THIS PLAN HAS BEEN PREPARED WITHOUT THE BENEFIT OF COMPLETE ZONING INFORMATION OR CONFIRMATION OF SITE DEVELOPMENT STANDARDS AND THUS THE SITE DEVELOPMENT FEASIBILITY IS NOT IMPLIED OR GUARANTEED.

ATTACHMENT 4

Fred Meyer
STORE #00220
NEWBERG

3300 PORTLAND ROAD
NEWBERG, OR

THE KROGER CO.
AND FRED MEYER
STORES INC.
3800 SE 22ND AVENUE
PORTLAND, OREGON 97202
503.232.8844
503.797.3509 FAX

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72nd Avenue South
KENT, WA 98032
t 425.251.6222 | f 425.251.8782
"ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES"
Barghausen.com

FRED MEYER
CANOPY
EXPANSION

3300 PORTLAND ROAD
NEWBERG, OR

© Barghausen Consulting Engineers, Inc.:
All rights reserved. No part of this document may be reproduced in any form or by any means without permission in writing from Barghausen Consulting Engineers, Inc.

△	DATE	DESCRIPTION
-	-	-

PLOTTED ON: Mar 07, 2014 - 11:58am BY: jstefancik

BCE #10315
PM: CHRIS FERKO
DATE: 11/13/13

DD-2
DETAILED
SITE PLAN

File:P:\10000s\10315\preliminary\2013 Canopy Expansion\10315-dd2.dwg Date/Time:3/7/2014 11:58 AM Scale:1" = 1' JSTEFANCIK Xref: ----

EXISTING FUEL TRUCK PATH EXHIBIT

1" = 60'

0 30 60 120

PORTLAND ROAD (HWY 99 W)

BRUTSCHER ST.

SPRINGBROOK ROAD

EXISTING U.S. BANK

EXISTING WENDY'S

EXISTING TACO BELL

EXISTING JIFFY LUBE

EXISTIN
WEST COAST

TENANT PARCEL 'C'
94,600 S.F.

TENANT PARCEL 'D'
55,695 S.F.

TENANT PARCEL 'B'
86,198 S.F.

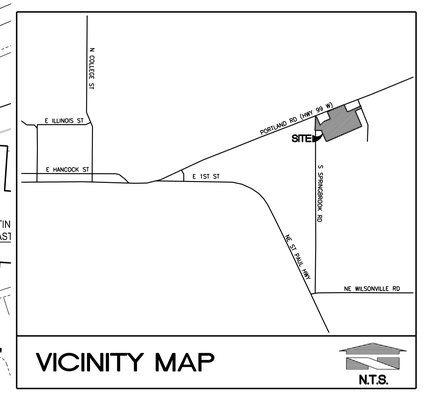
EXISTING OFFICE / RETAIL BUILDING

TENANT PARCEL 'E'
77,265 S.F.

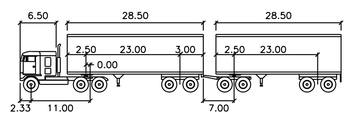
Fred Meyer
PARCEL 'A'

EXISTING FRED MEYER FUELING FACILITY

VICINITY MAP



N.T.S.



WB-67D feet

Tractor Width	: 8.00	Lock to Lock Time	: 6.00
Trailer Width	: 8.50	Steering Angle	: 15.6
Tractor Track	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.50		

Fred Meyer
STORE # 00220
NEWBERG

3300 Portland Road
Newberg, OR 97132

THE KROGER CO.
AND FRED MEYER
STORES INC.
3800 SE 22ND AVENUE
PORTLAND, OREGON, 97202
503.232.8844
503.797.3509 FAX

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72nd Avenue South
KENT, WA 98032
t 425.251.6222 | f 425.251.8782
"ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES"
Barghausen.com

FRED MEYER
FUELING
FACILITY
ADDITION

3300 Portland Road
Newberg, OR 97132

© Barghausen Consulting Engineers, Inc.:
All rights reserved. No part of this document may be reproduced in any form or by any means without permission in writing from Barghausen Consulting Engineers, Inc.

△	DATE	DESCRIPTION

PLOTTED ON : Nov 03, 2014 - 4:41pm BY: jstefanick

BCE #10315
PM: CHRIS FERKO
DATE: 10/30/14

EXPANSION FUEL TRUCK PATH EXHIBIT

1" = 60'

0 30 60 120

PORTLAND ROAD (HWY 99 W)

BRUTSCHER ST.

SPRINGBROOK ROAD

EXISTING U.S. BANK

EXISTING WENDY'S

EXISTING TACO BELL

EXISTING JIFFY LUBE

EXISTIN
[WEST COAST]

TENANT PARCEL 'C'
94,600 S.F.

TENANT PARCEL 'D'
55,695 S.F.

TENANT PARCEL 'B'
86,198 S.F.

EXISTING OFFICE / RETAIL BUILDING

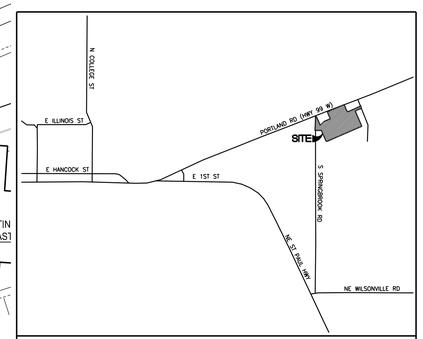
TENANT PARCEL 'E'
77,265 S.F.

Fred Meyer
PARCEL 'A'

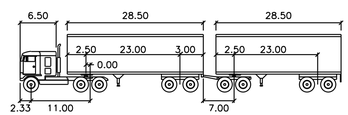
PROPOSED CANOPY EXPANSION

249 64 284 69

VICINITY MAP



N.T.S.



WB-67D feet

Tractor Width	: 8.00	Lock to Lock Time	: 6.00
Trailer Width	: 8.50	Steering Angle	: 15.6
Tractor Track	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.50		

Fred Meyer
STORE # 00220
NEWBERG

3300 Portland Road
Newberg, OR 97132

THE KROGER CO.
AND FRED MEYER
STORES INC.
3800 SE 22ND AVENUE
PORTLAND, OREGON, 97202
503.232.8844
503.797.3509 FAX

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72nd Avenue South
KENT, WA 98032
t 425.251.6222 | f 425.251.8782
"ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES"
Barghausen.com

FRED MEYER
FUELING
FACILITY
ADDITION

3300 Portland Road
Newberg, OR 97132

© Barghausen Consulting Engineers, Inc.:
All rights reserved. No part of this document may be reproduced in any form or by any means without permission in writing from Barghausen Consulting Engineers, Inc.

△	DATE	DESCRIPTION

PLOTTED ON : Nov 03, 2014 - 4:41pm BY: jstefanick

BCE #10315
PM: CHRIS FERKO
DATE: 10/30/14

EX. 2 OF 2

APPENDIX B

TRAFFIC VOLUME FIGURES

Portland 503.224.9560 | Vancouver 360.695.7879 | Seattle 206.749.9993
www.mcknze.com
Architecture • Interiors
Planning • Engineering
MACKENZIE.

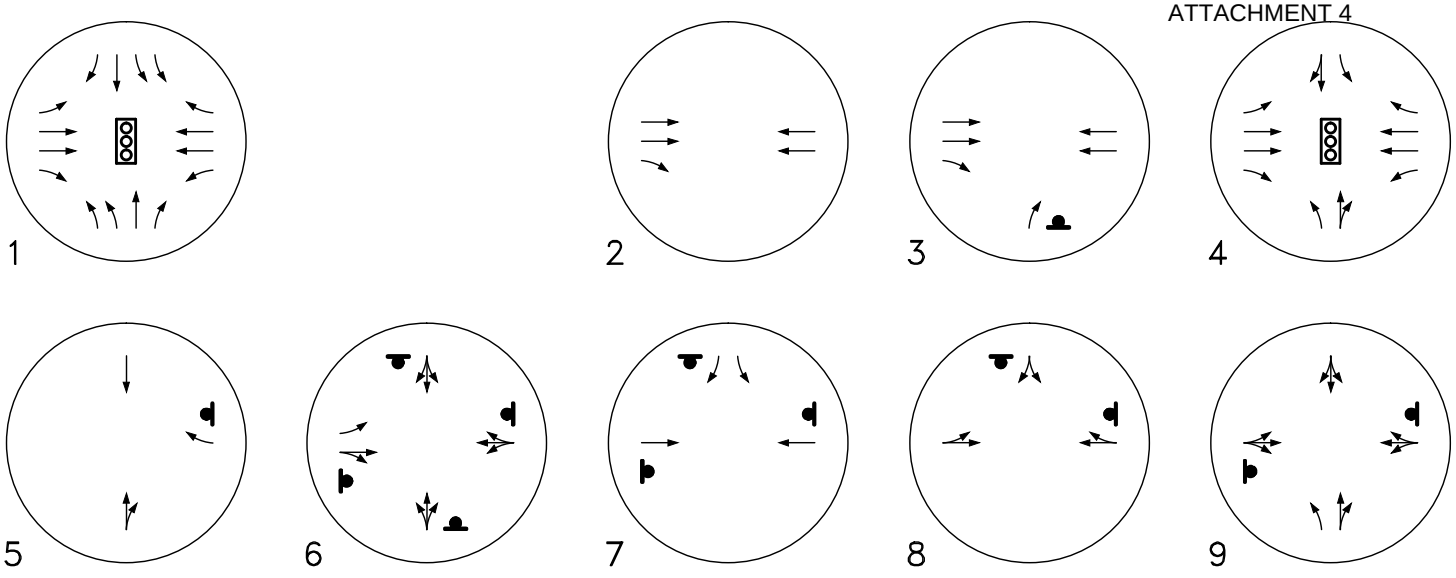
© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

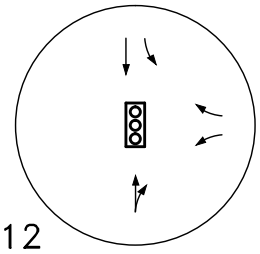
DATE: 10.29.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

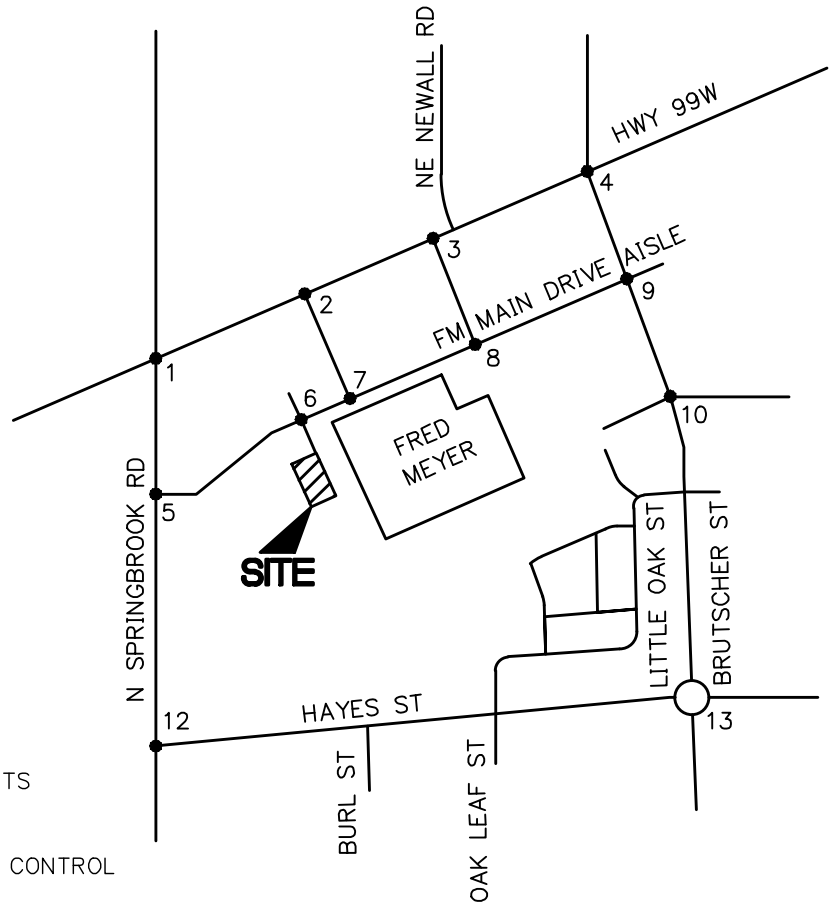
VICINITY MAP

FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE 1







LEGEND

- LANES/MOVEMENTS
- TRAFFIC SIGNAL CONTROL
- ROUNDABOUT
- STOP SIGN CONTROL
- YIELD SIGN CONTROL

NOT TO SCALE

Portland 503.224.9560 | Vancouver 360.695.7879 | Seattle 206.749.9993
www.mcknze.com
Architecture • Interiors
Planning • Engineering
MACKENZIE.

© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

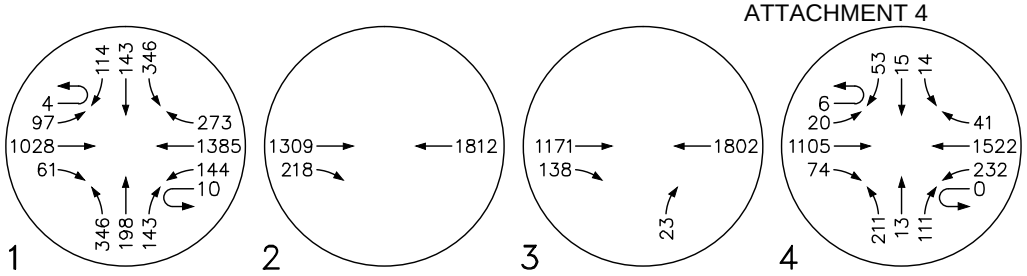
DATE: 11.03.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

EXISTING LANE CONFIGURATIONS AND TRAFFIC CONTROLS

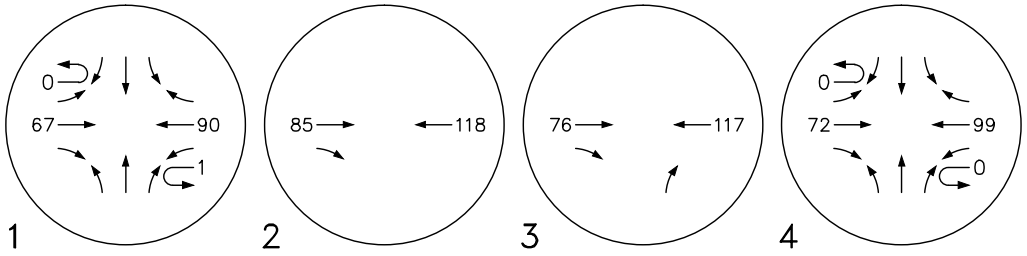
FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE 2

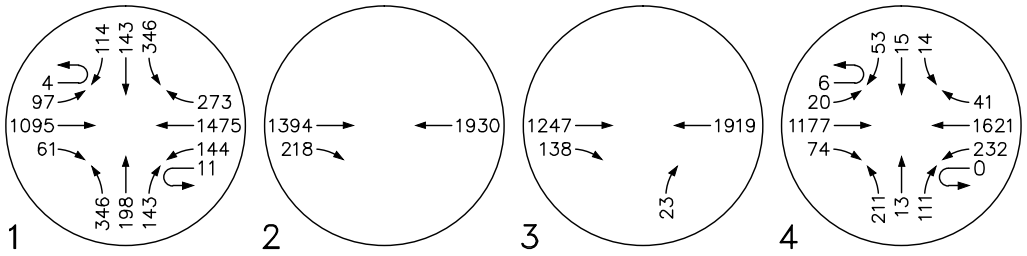
EXISTING WEEKDAY PM PEAK HOUR VOLUMES

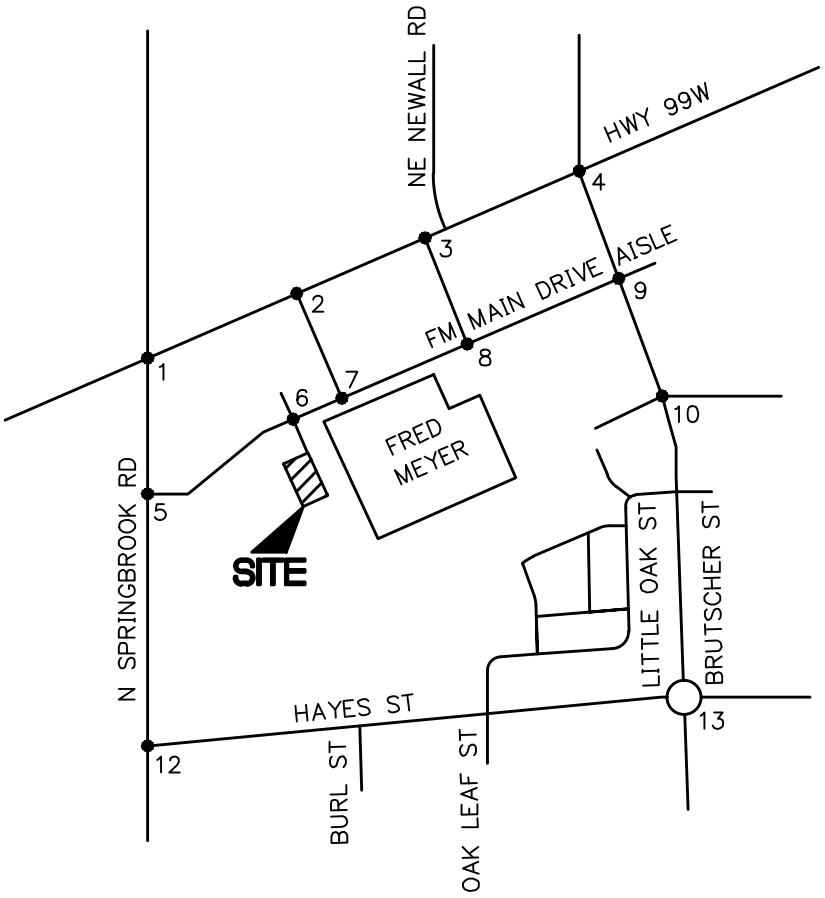


SEASONAL ADJUSTMENT



ADJUSTED EXISTING 30TH HIGHEST WEEKDAY PM PEAK HOUR VOLUMES





NOT TO SCALE

Portland 503.224.9560 | Vancouver 360.695.7879 | Seattle 206.749.9993
www.mcknze.com
Architecture ▪ Interiors
Planning ▪ Engineering
MACKENZIE.

© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

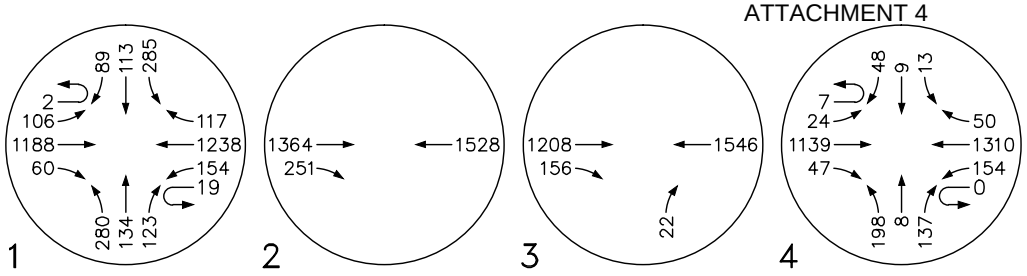
DATE: 10.30.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

ODOT 30TH HIGHEST HOUR ADJUSTMENT WEEKDAY PM PEAK HOUR

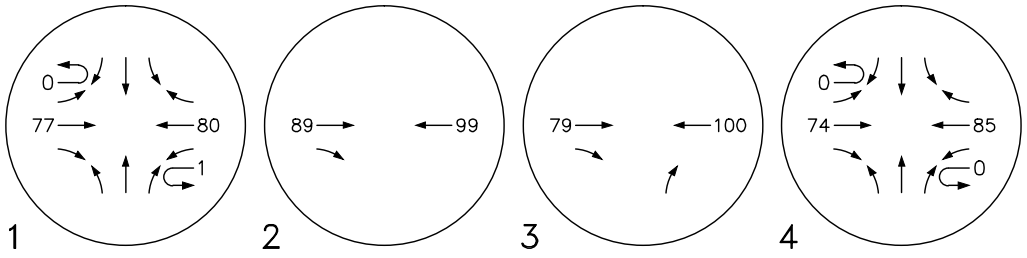
FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE 3A

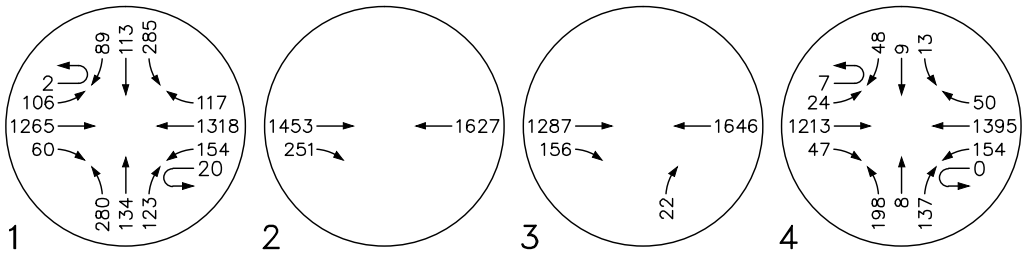
EXISTING SATURDAY MID-DAY PEAK HOUR VOLUMES

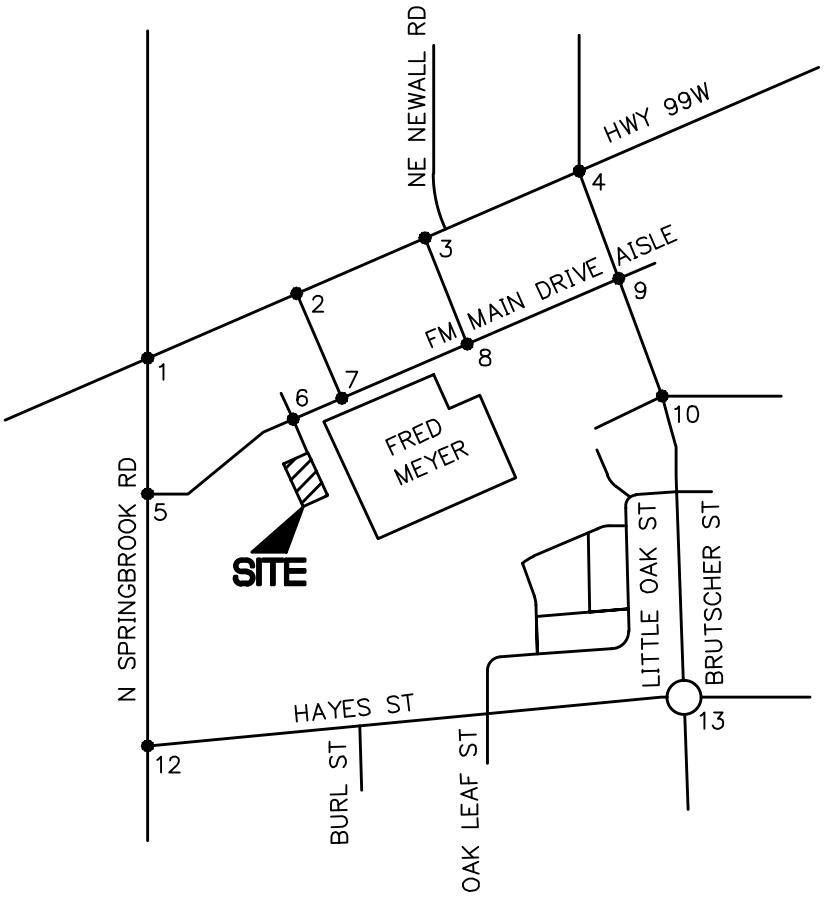


SEASONAL ADJUSTMENT



ADJUSTED EXISTING 30TH HIGHEST WEEKDAY PM PEAK HOUR VOLUMES





NOT TO SCALE

Portland 503.224.9560 | Vancouver 360.695.7879 | Seattle 206.749.9993
www.mcknze.com
Architecture ▪ Interiors
Planning ▪ Engineering
MACKENZIE.

© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

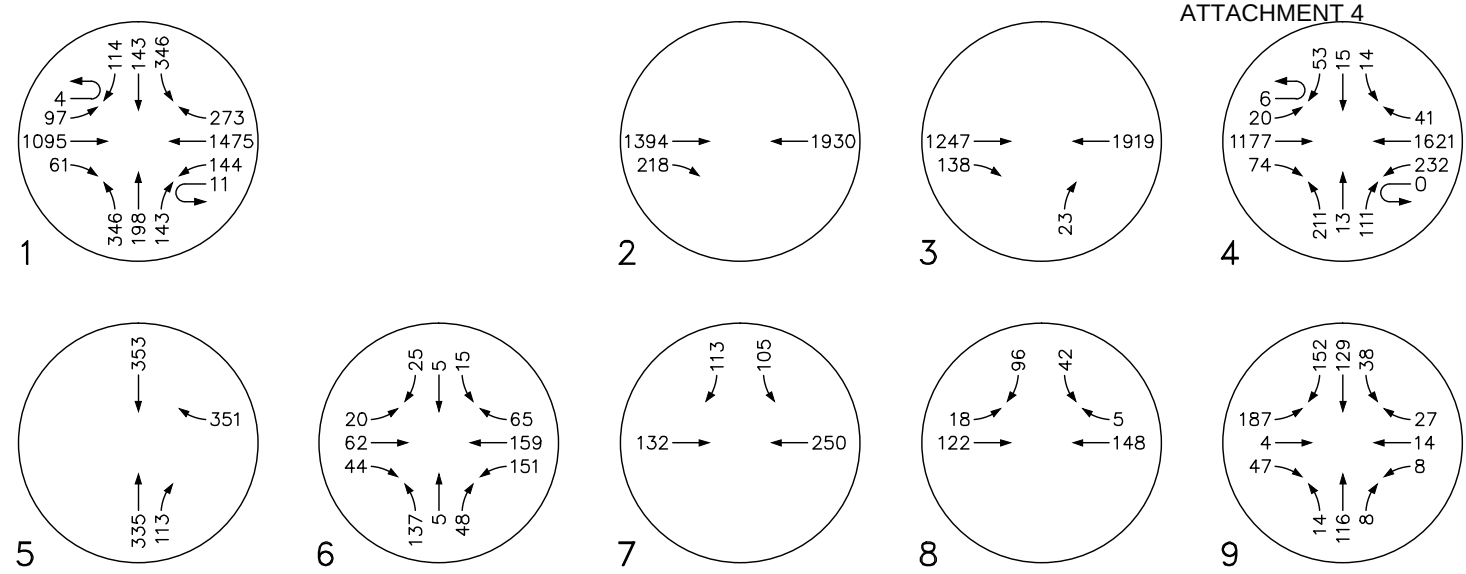
DATE: 10.30.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

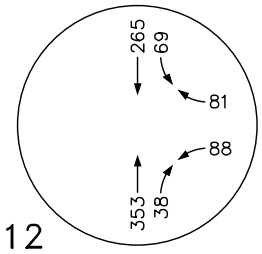
ODOT 30TH HIGHEST HOUR ADJUSTMENT SATURDAY MID-DAY PEAK HOUR

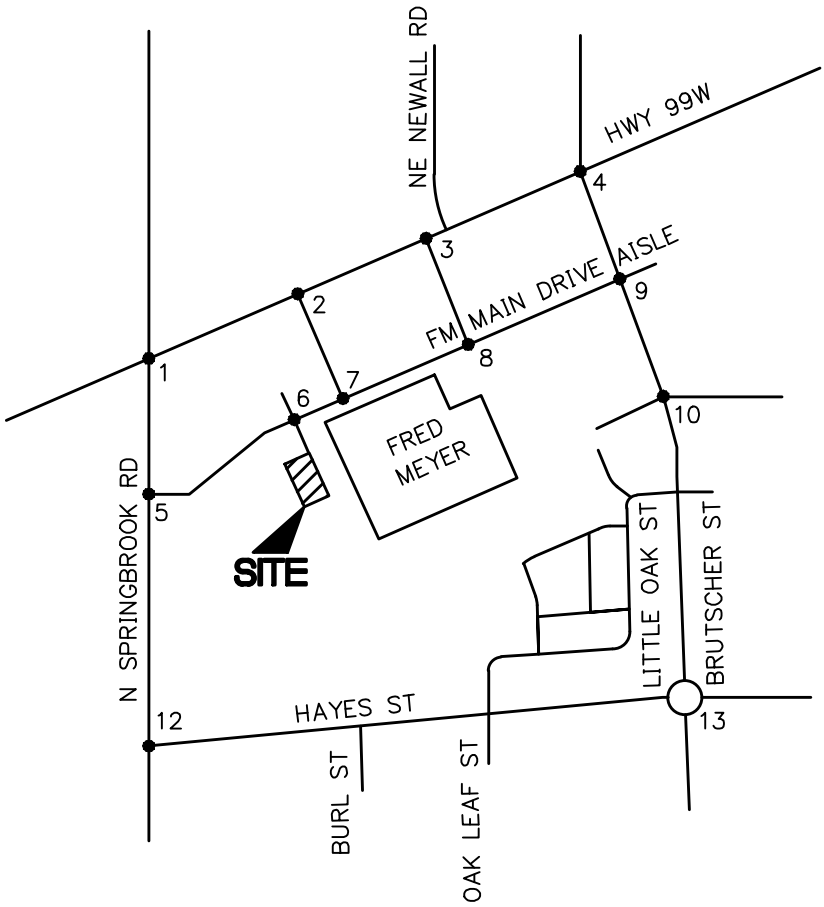
FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE 3B

ATTACHMENT 4







NOT TO SCALE

Portland 503.224.9560 | Vancouver 360.695.7879 | Seattle 206.749.9993
www.mcknze.com
Architecture ▪ Interiors
Planning ▪ Engineering
MACKENZIE

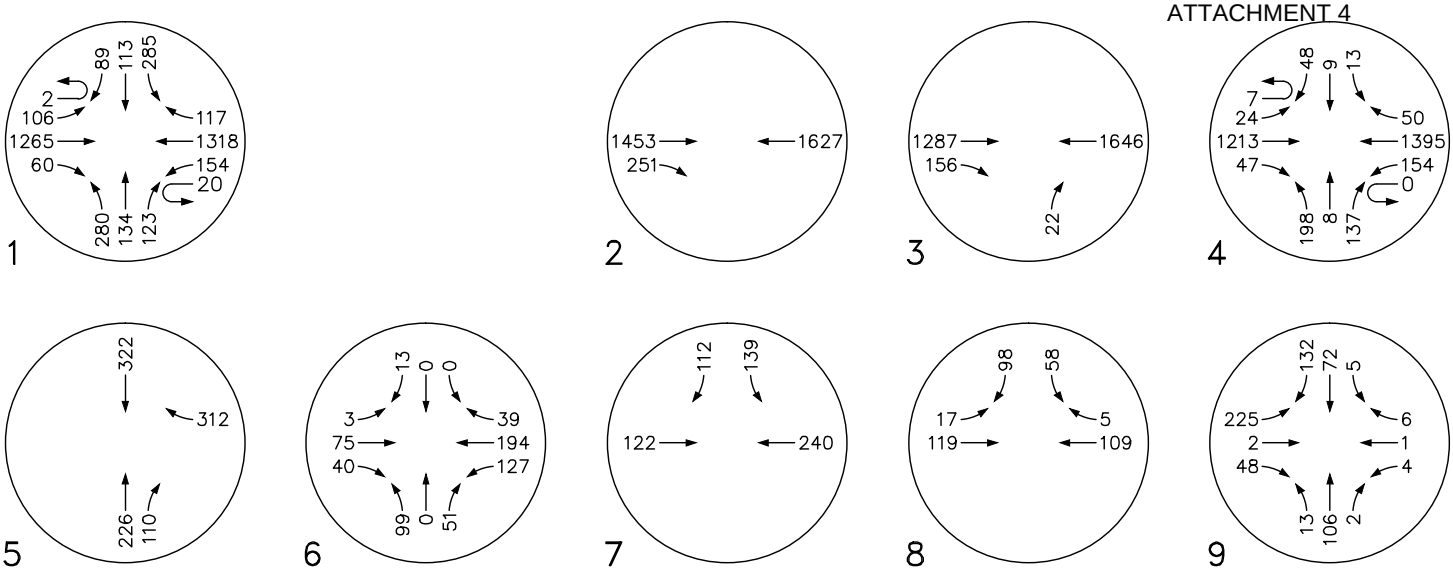
© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

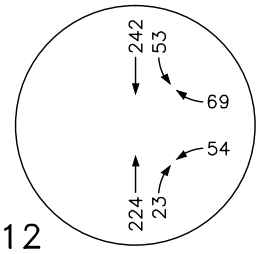
DATE: 10.30.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

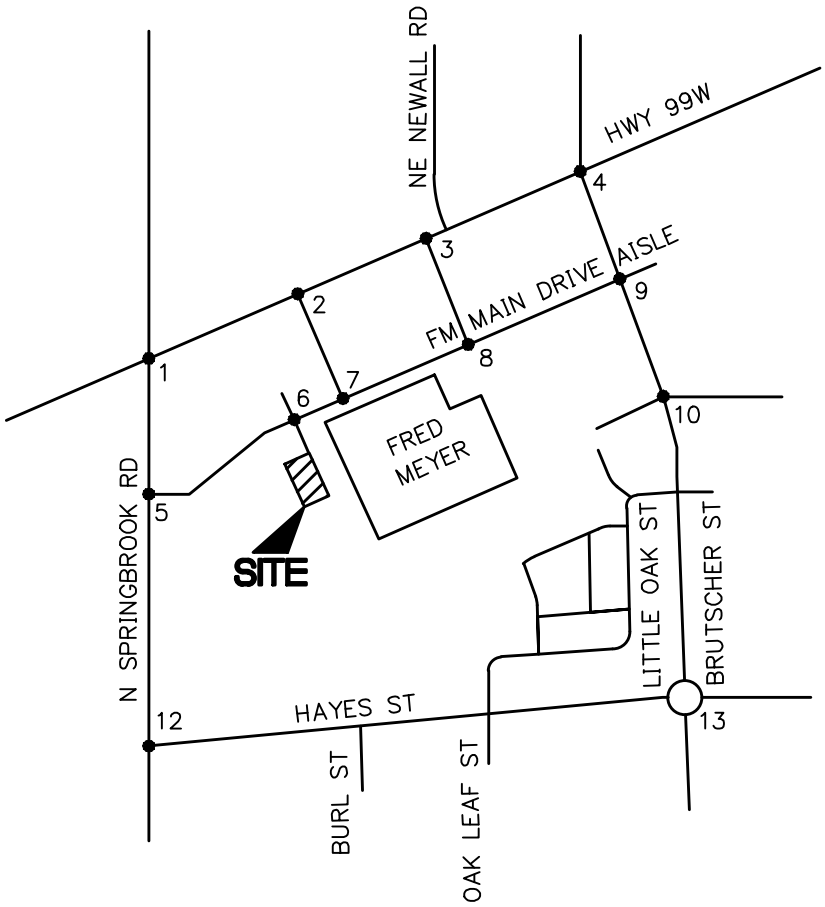
2014 EXISTING 30TH HIGHEST HOUR VOLUMES WEEKDAY PM PEAK HOUR

FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE 3C







NOT TO SCALE

Portland 503.224.9560 | Vancouver 360.695.7879 | Seattle 206.749.9993
www.mcknze.com
Architecture ▪ Interiors
Planning ▪ Engineering
MACKENZIE

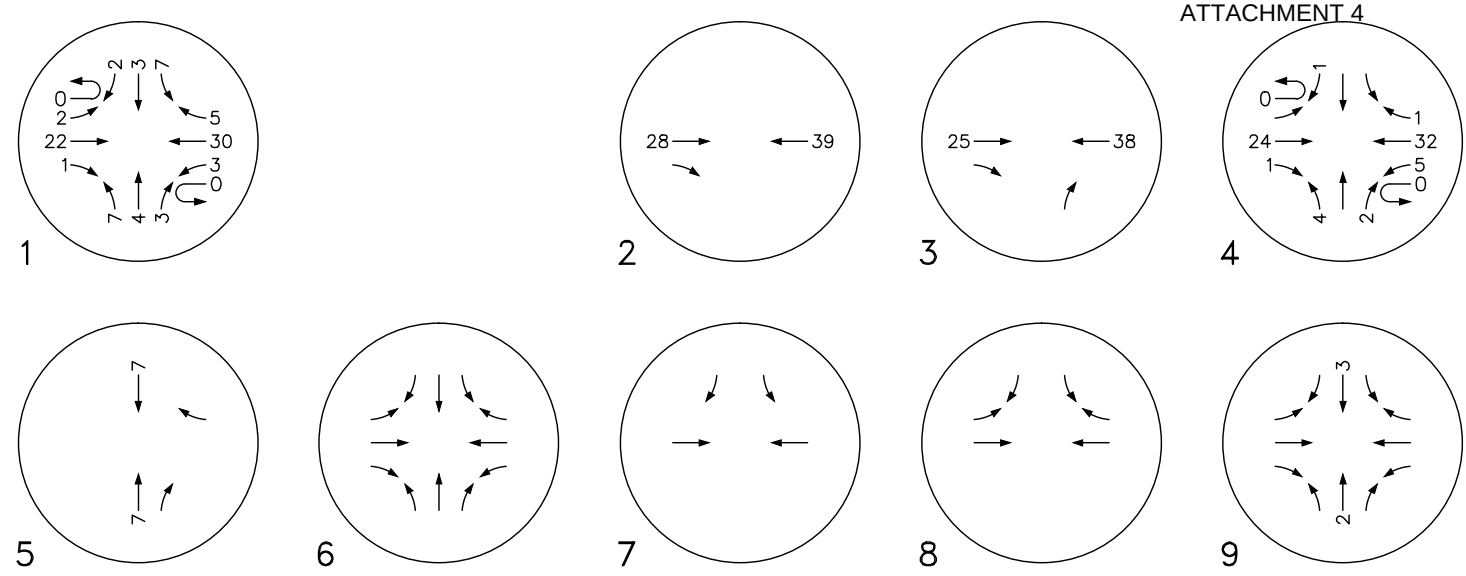
© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

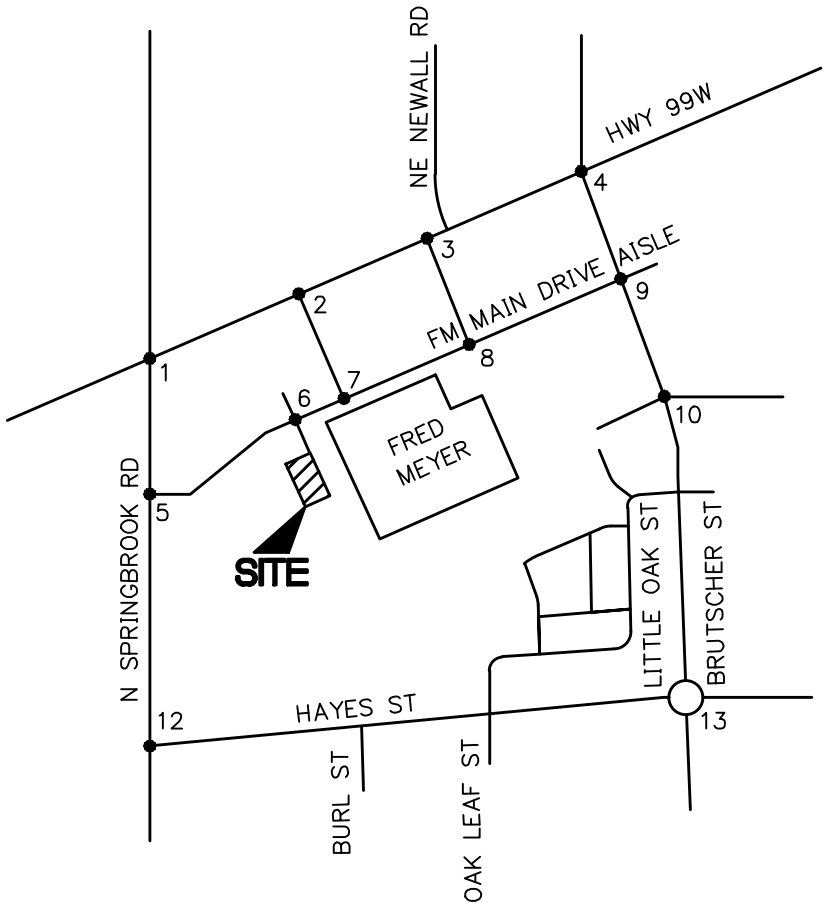
DATE: 10.30.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

2014 EXISTING 30TH HIGHEST HOUR VOLUMES SATURDAY MID-DAY PEAK HOUR

FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE
3D





NOT TO SCALE

Portland 503.224.9560 | Vancouver 360.695.7879 | Seattle 206.749.9993
www.mcknze.com
Architecture ▪ Interiors
Planning ▪ Engineering
MACKENZIE.

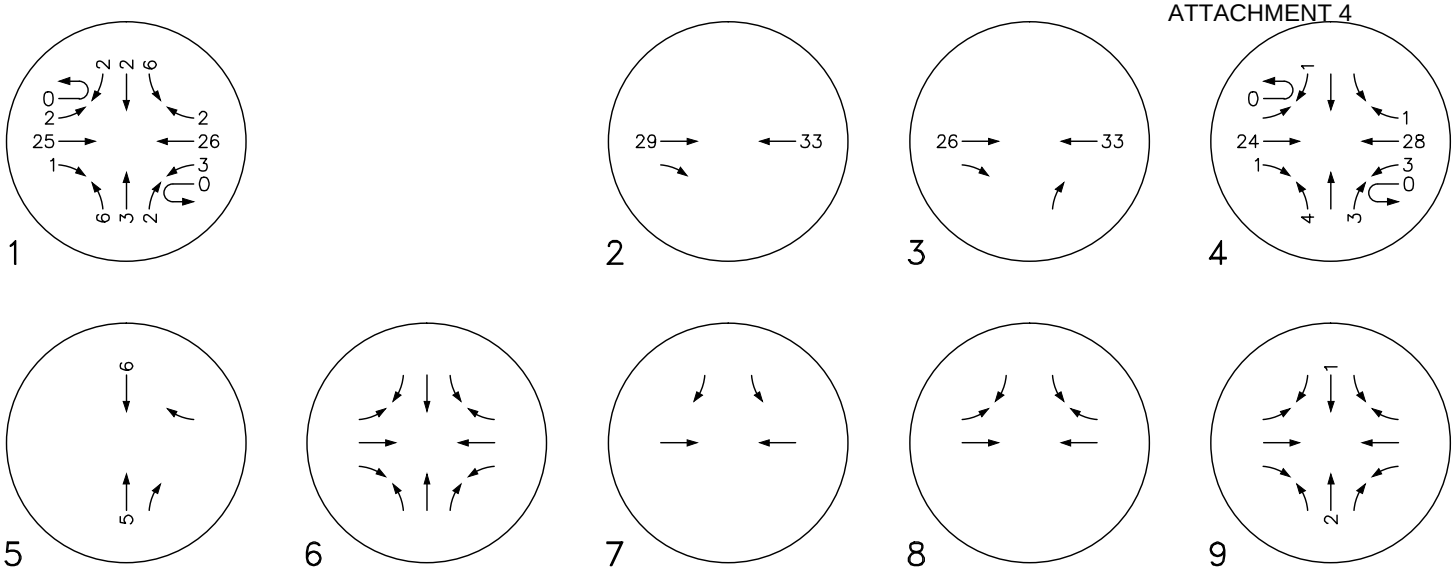
© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

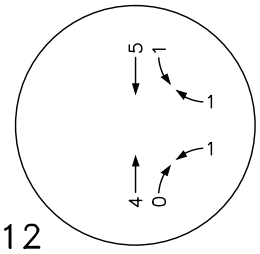
DATE: 10.30.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

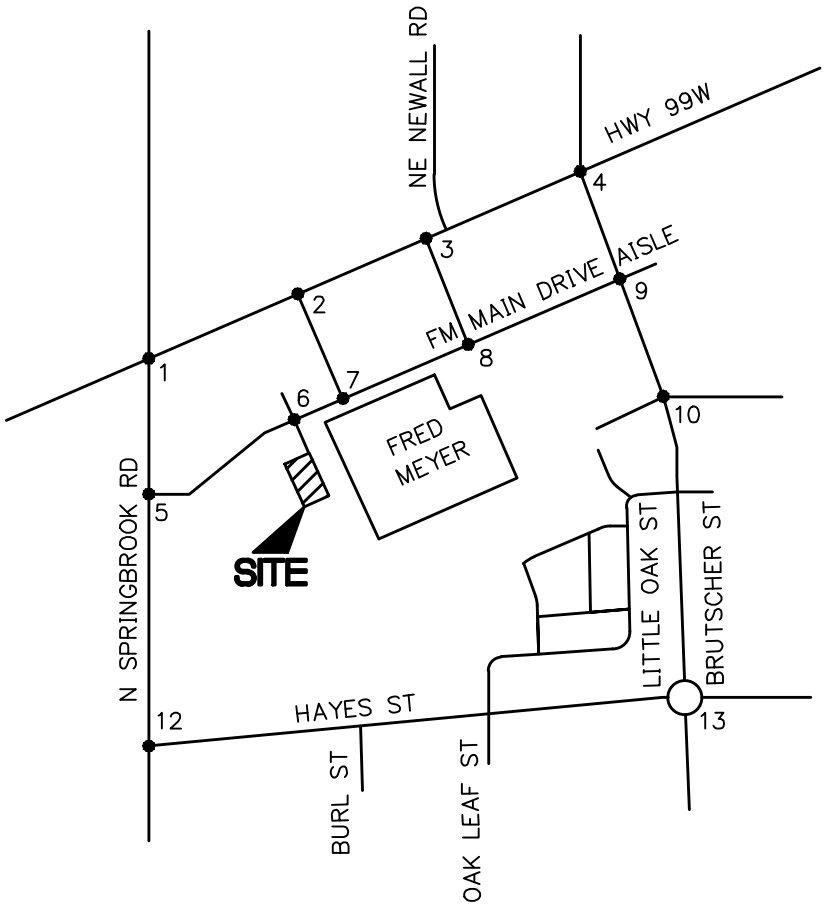
2015 BACKGROUND GROWTH
1 YEAR AT 2% PER YEAR
WEEKDAY PM PEAK HOUR

FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE
4A







NOT TO SCALE

Portland 503.224.9560 | Vancouver 360.695.7879 | Seattle 206.749.9993
www.mcknze.com
Architecture • Interiors
Planning • Engineering
MACKENZIE

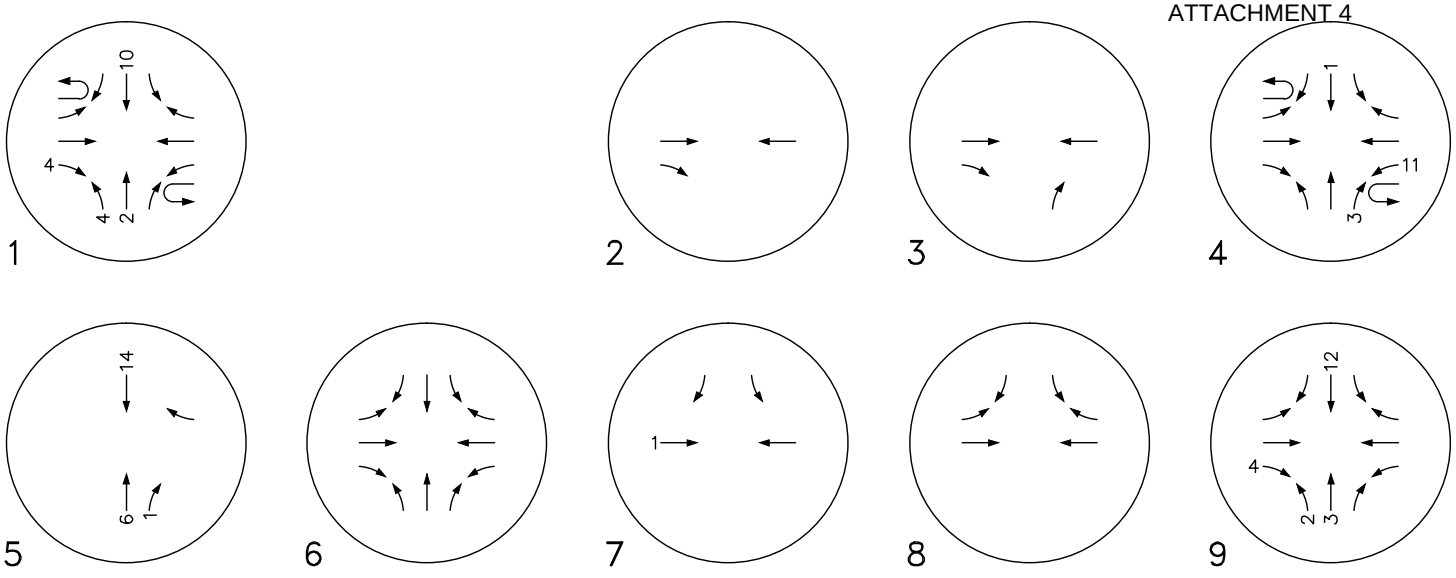
© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

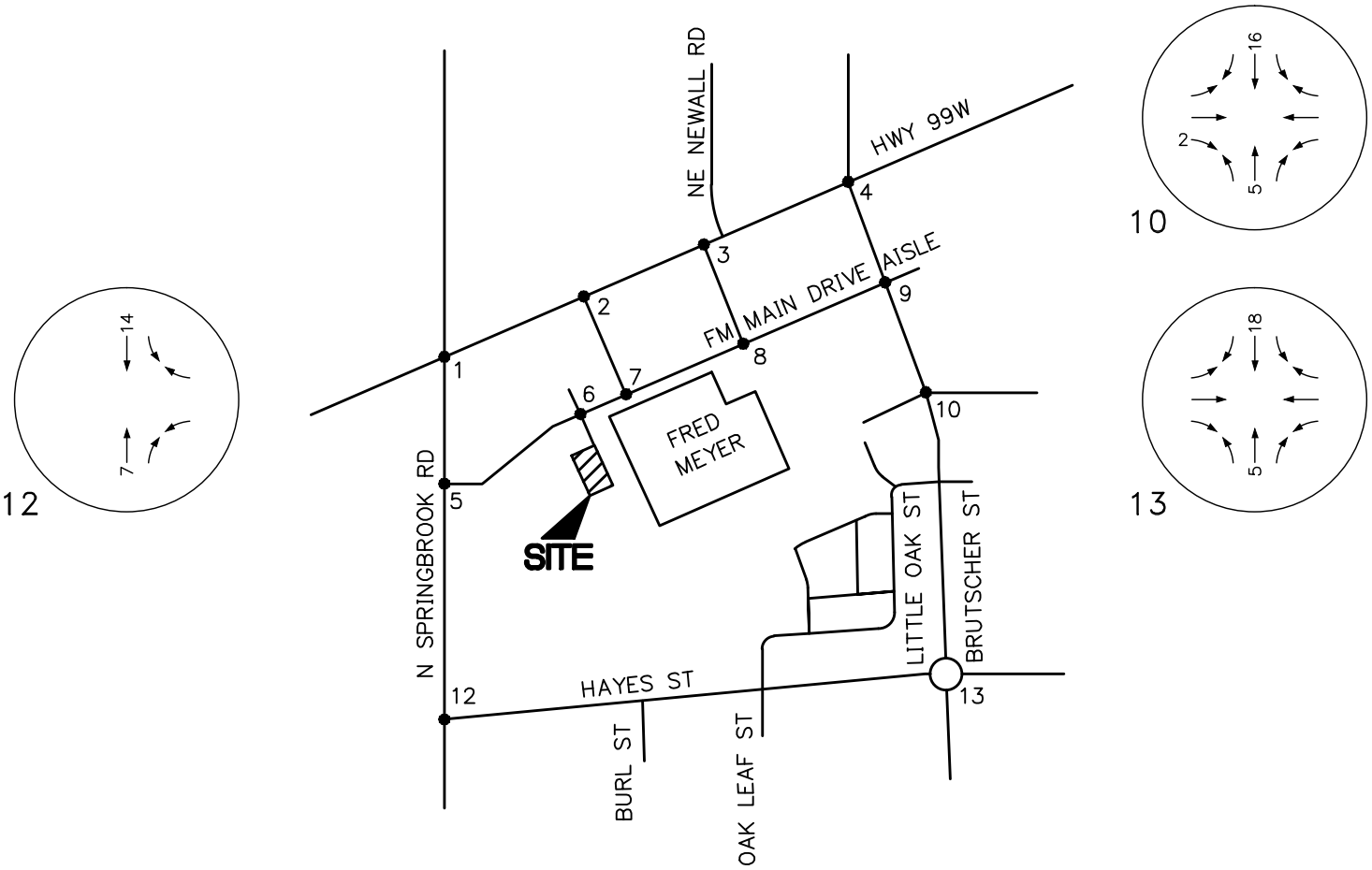
DATE: 10.30.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

2015 BACKGROUND GROWTH
1 YEAR AT 2% PER YEAR
SATURDAY MID-DAY PEAK HOUR

FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE
4B





NOT TO SCALE

Portland 503.224.9560 | Vancouver 360.695.7879 | Seattle 206.749.9993
www.mcknze.com
Architecture ▪ Interiors
Planning ▪ Engineering
MACKENZIE.

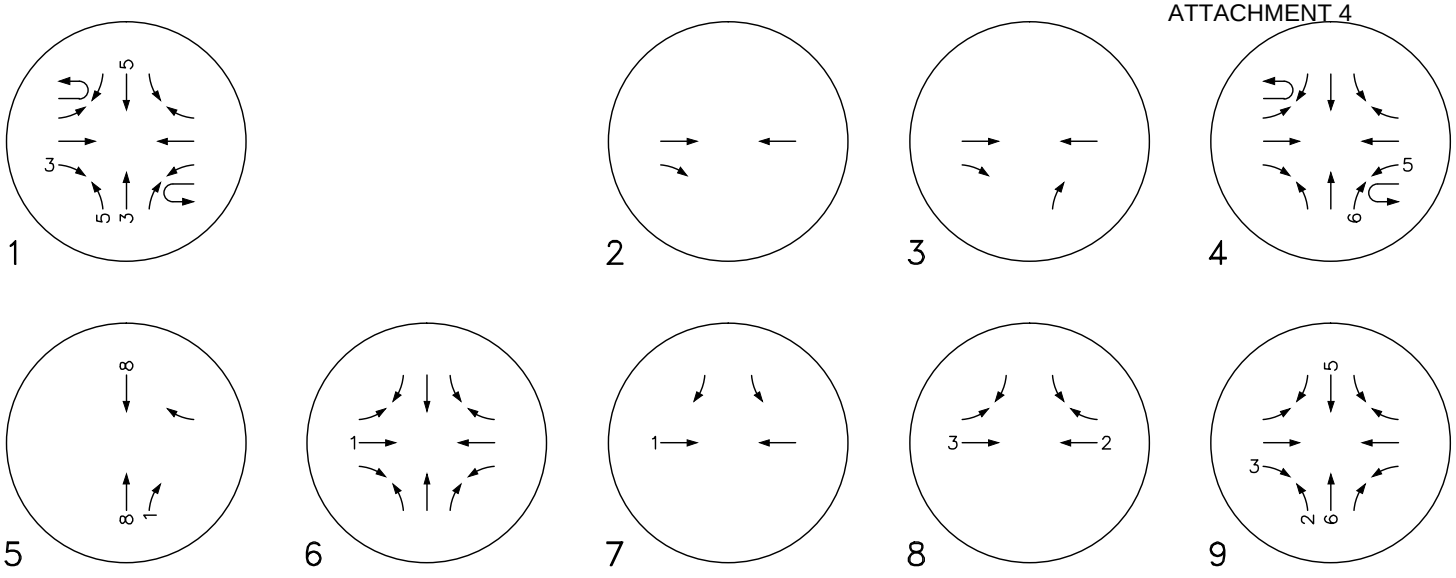
© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

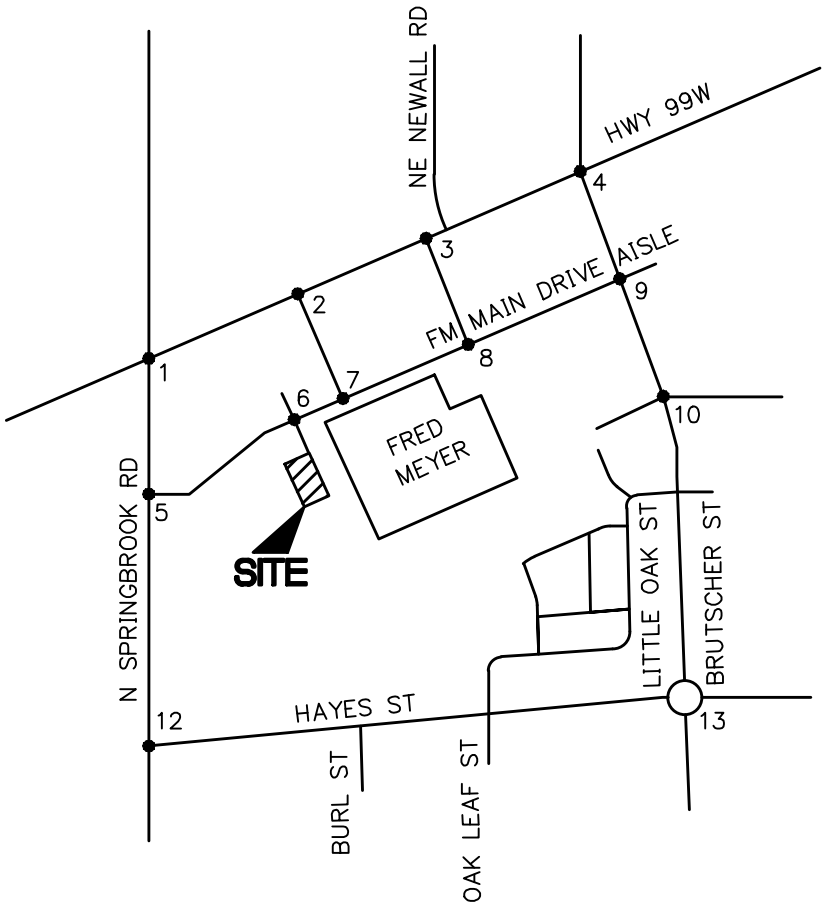
DATE: 10.30.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

IN-PROCESS TRIPS
WEEKDAY PM PEAK HOUR

FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE
5A





NOT TO SCALE

Portland 503.224.9560 | Vancouver 360.695.7879 | Seattle 206.749.9993
www.mcknze.com
Architecture ▪ Interiors
Planning ▪ Engineering
MACKENZIE

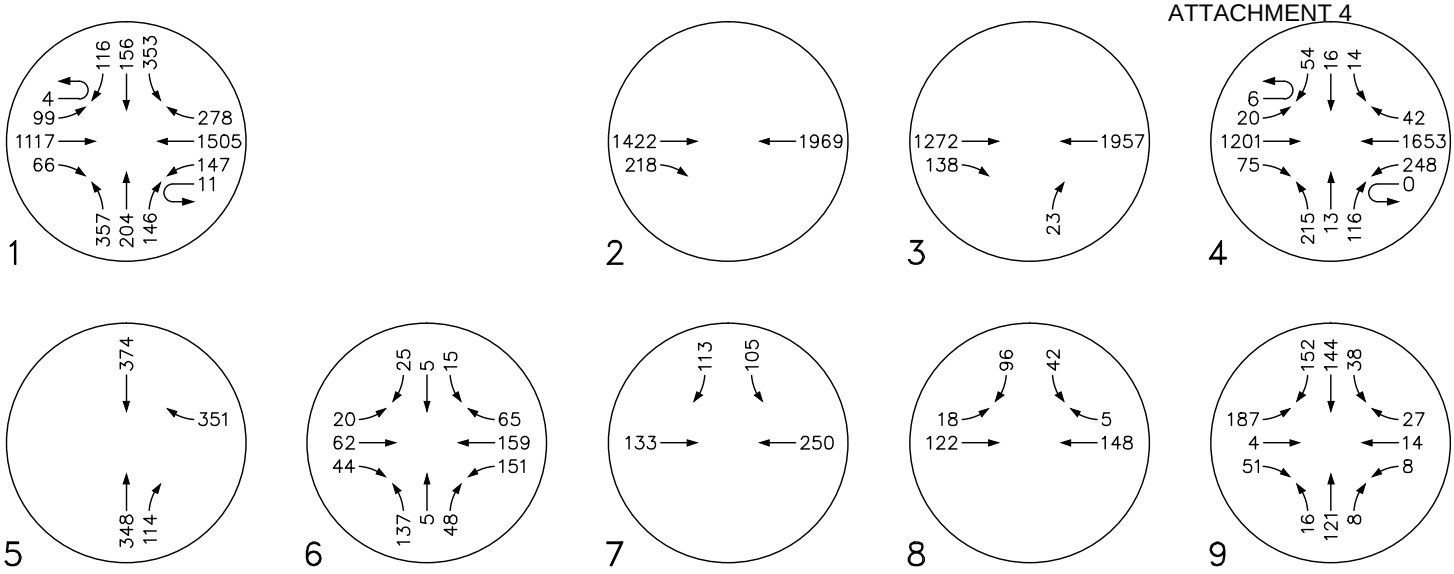
© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

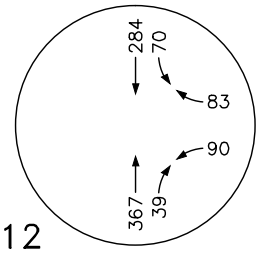
DATE: 10.30.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

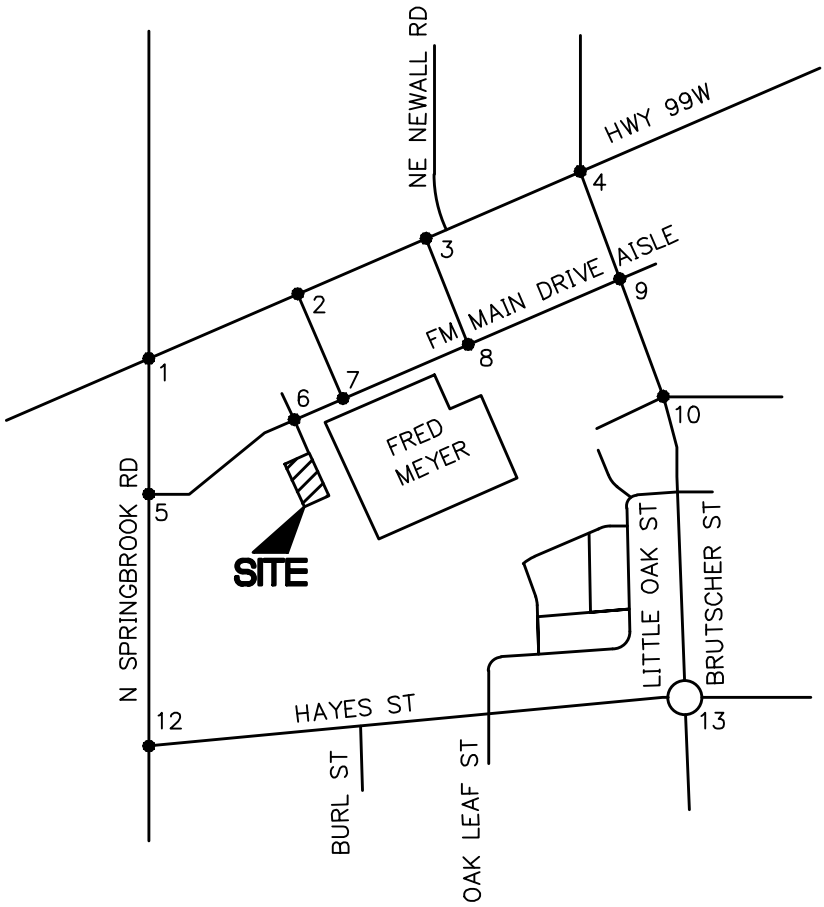
IN-PROCESS TRIPS SATURDAY MID-DAY PEAK HOUR

FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE 5B







NOT TO SCALE

Portland 503.224.9560 | Vancouver 360.695.7879 | Seattle 206.749.9993
www.mcknze.com
Architecture ▪ Interiors
Planning ▪ Engineering
MACKENZIE

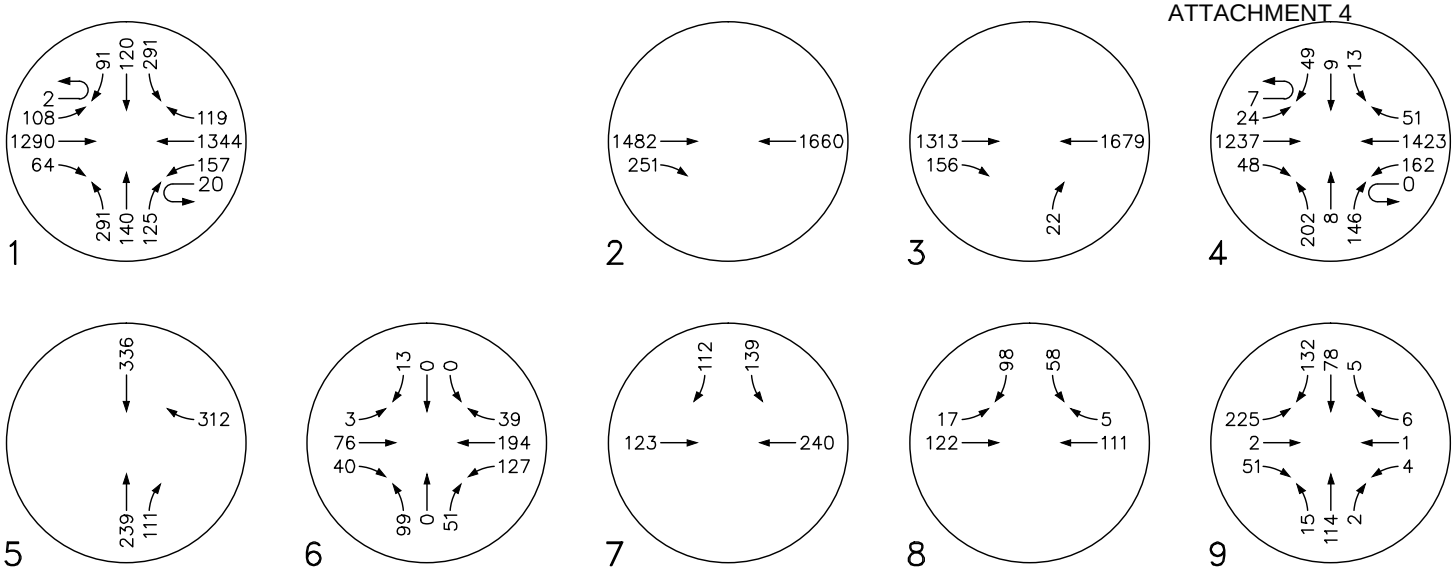
© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

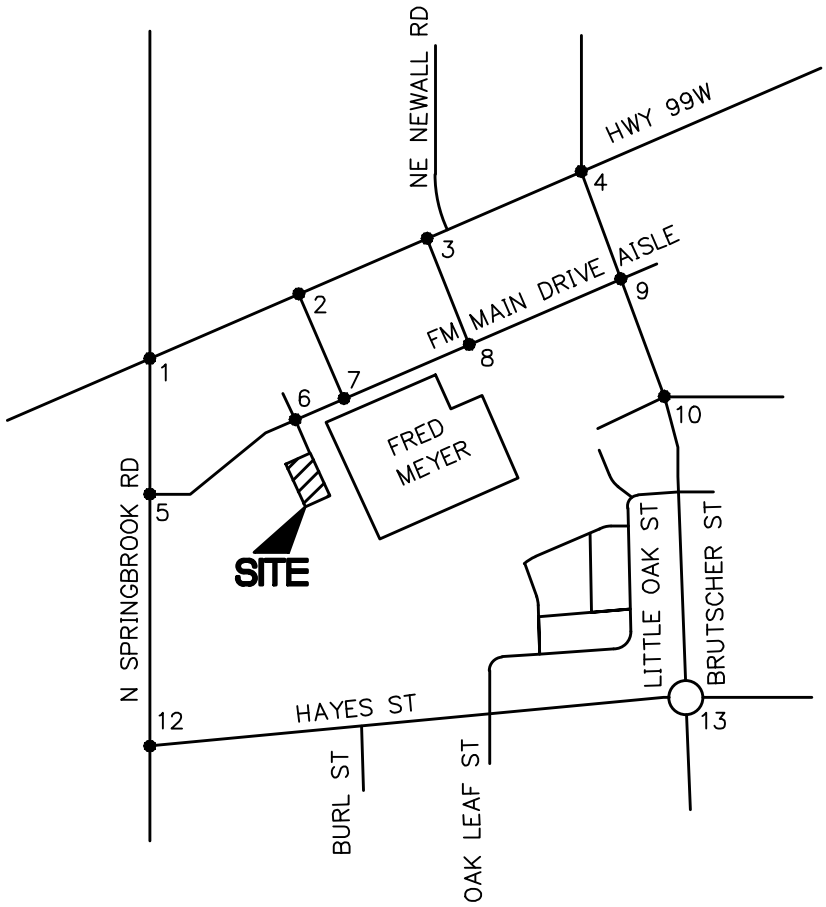
DATE: 10.30.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

2015 PRE-DEVELOPMENT VOLUMES WEEKDAY PM PEAK HOUR

FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE
6A





NOT TO SCALE

Portland 503.224.9560 Vancouver 360.695.7879 Seattle 206.749.9993
www.mcknze.com
Architecture ▪ Interiors
Planning ▪ Engineering
MACKENZIE.

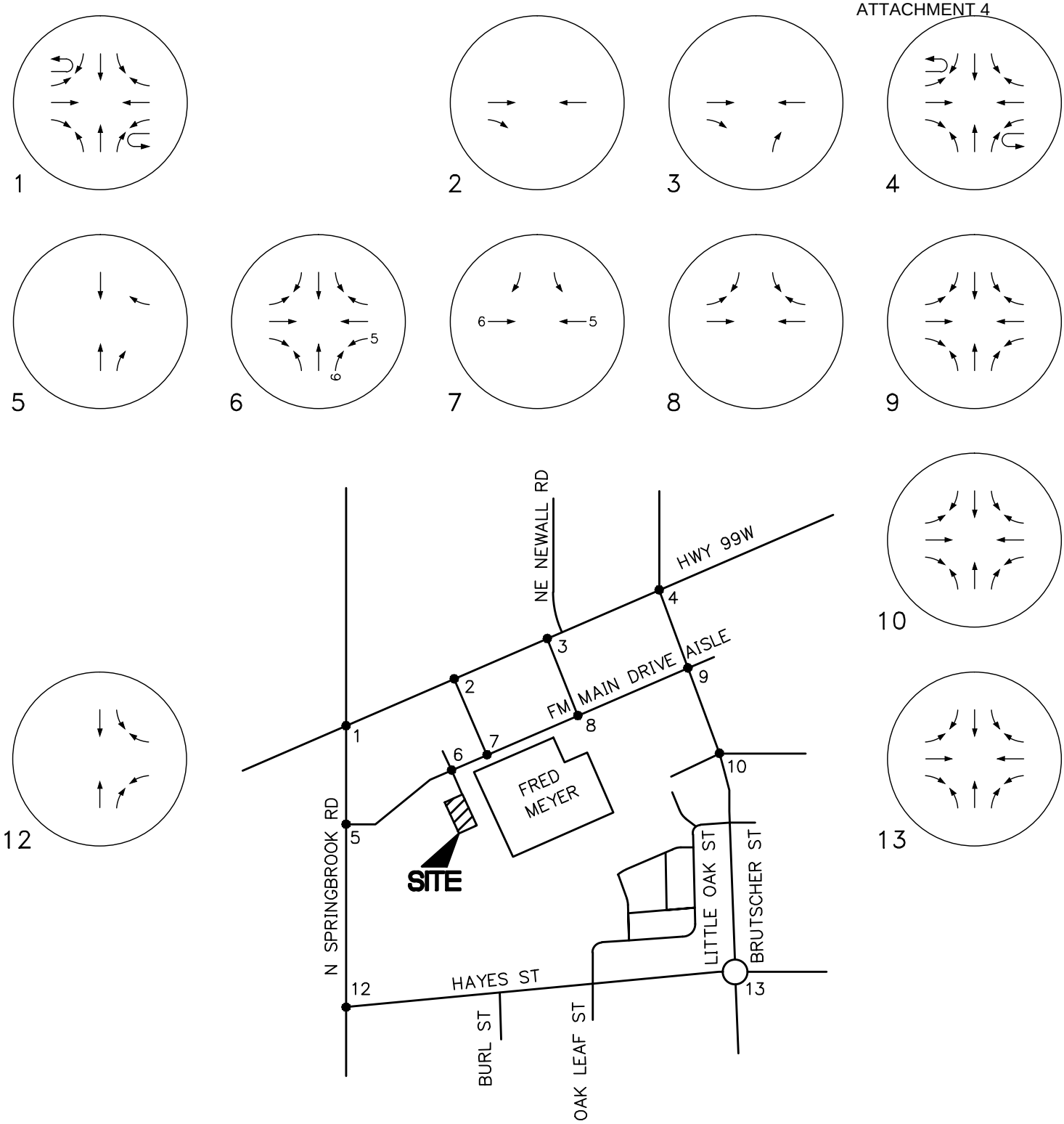
© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

DATE: 10.30.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

2015 PRE-DEVELOPMENT VOLUMESSATURDAY MID-DAY PEAK HOUR

FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE
6B



NOT TO SCALE

Portland 503.224.9560 Vancouver 360.695.7879 Seattle 206.749.9993
www.mcknze.com
Architecture ▪ Interiors
Planning ▪ Engineering
MACKENZIE

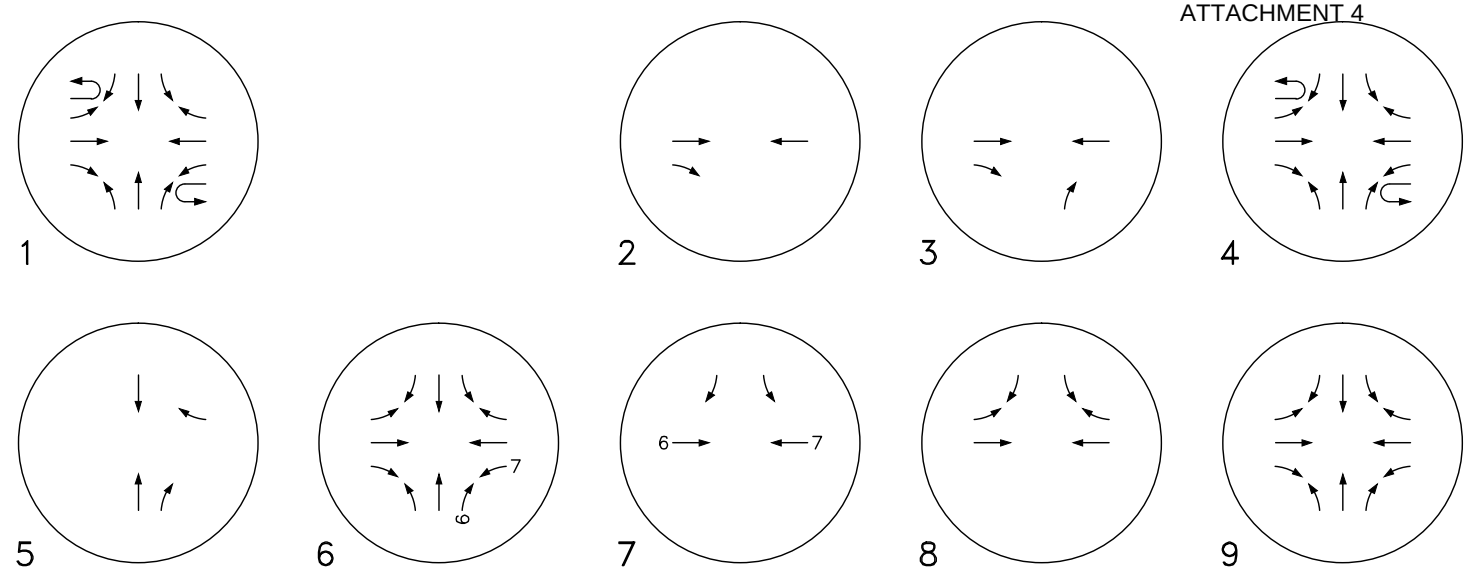
© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

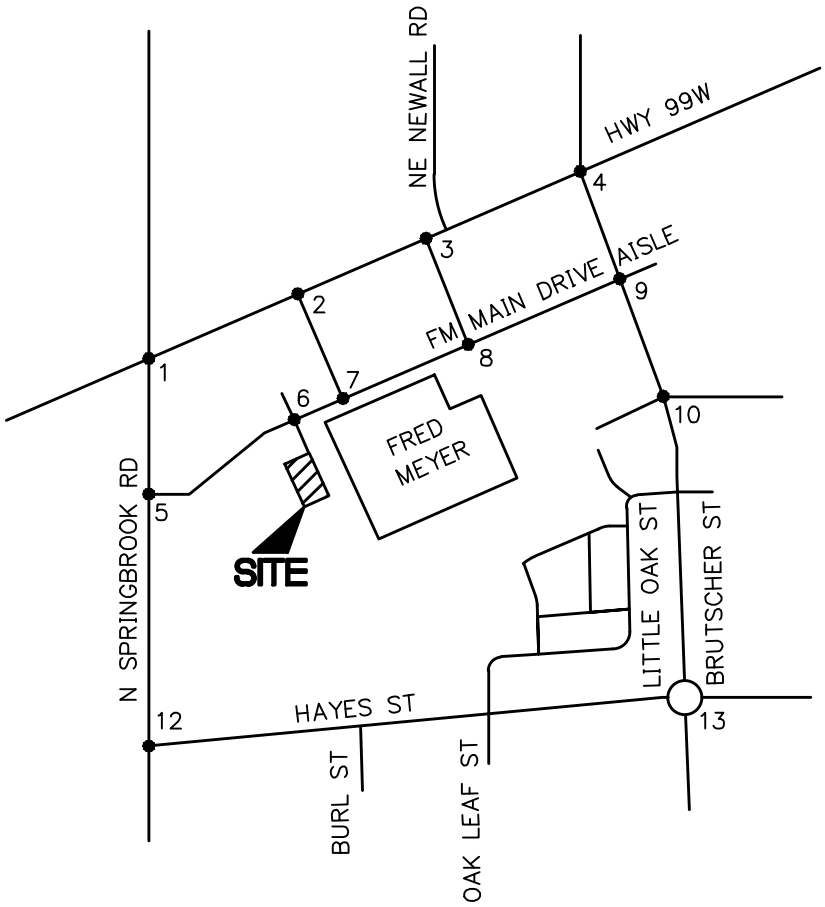
DATE: 10.30.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

SITE SHARED TRIP ASSIGNMENT WEEKDAY PM PEAK HOUR

FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE
7A





NOT TO SCALE

Portland 503.224.9560 | Vancouver 360.695.7879 | Seattle 206.749.9993
www.mcknze.com
Architecture ▪ Interiors
Planning ▪ Engineering
MACKENZIE

© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

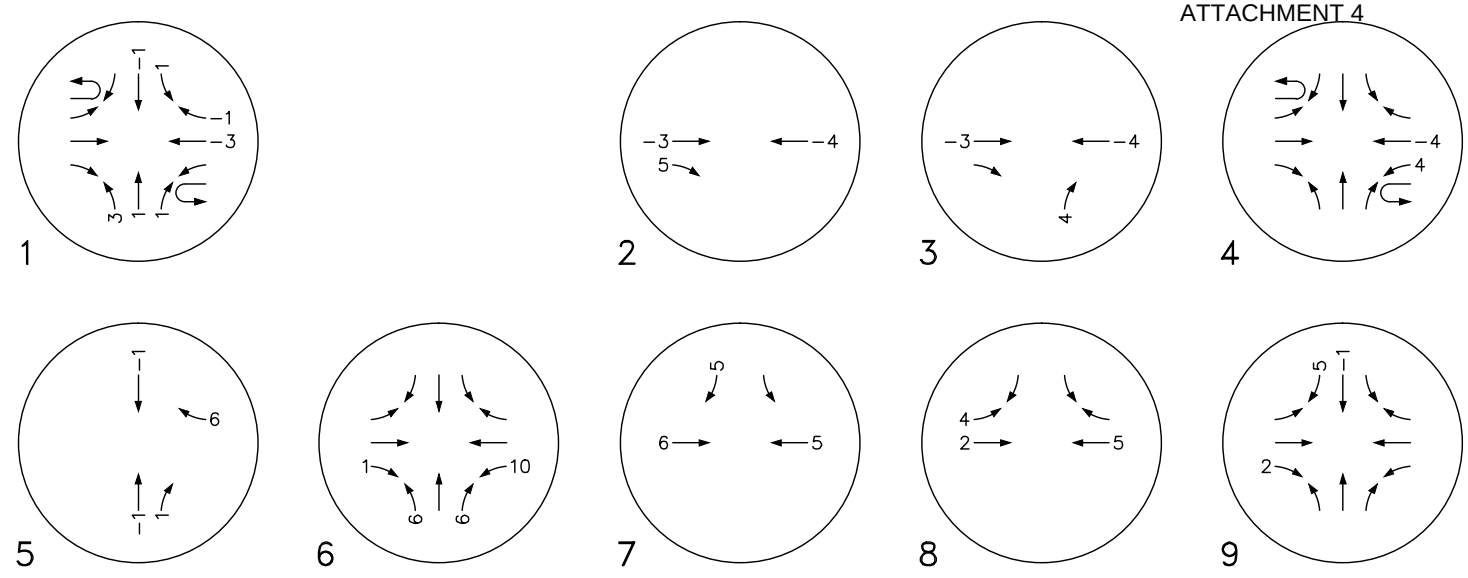
DATE: 10.30.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

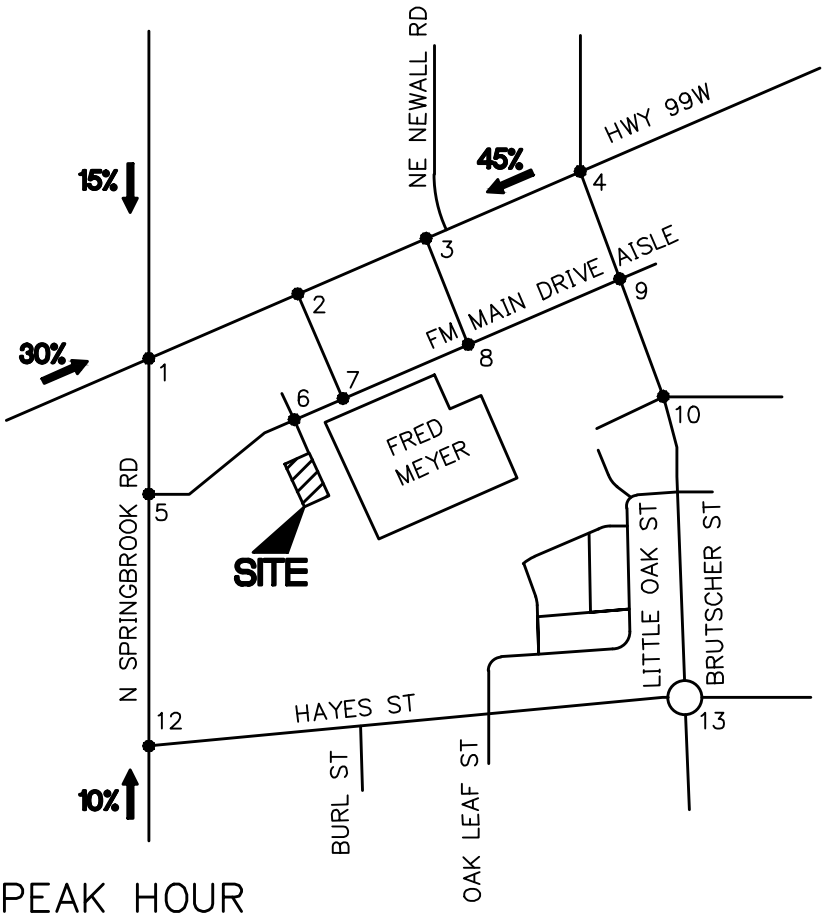
SITE SHARED TRIP ASSIGNMENT SATURDAY MID-DAY PEAK HOUR

FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE
7B

ATTACHMENT 4





WEEKDAY PM PEAK HOUR
SITE PASS-BY TRIPS

ENTER = 11
EXIT = 12
TOTAL = 23

NOT TO SCALE

Portland 503.224.9560 | Vancouver 360.695.7879 | Seattle 206.749.9993
www.mcknze.com
Architecture • Interiors
Planning • Engineering
MACKENZIE.

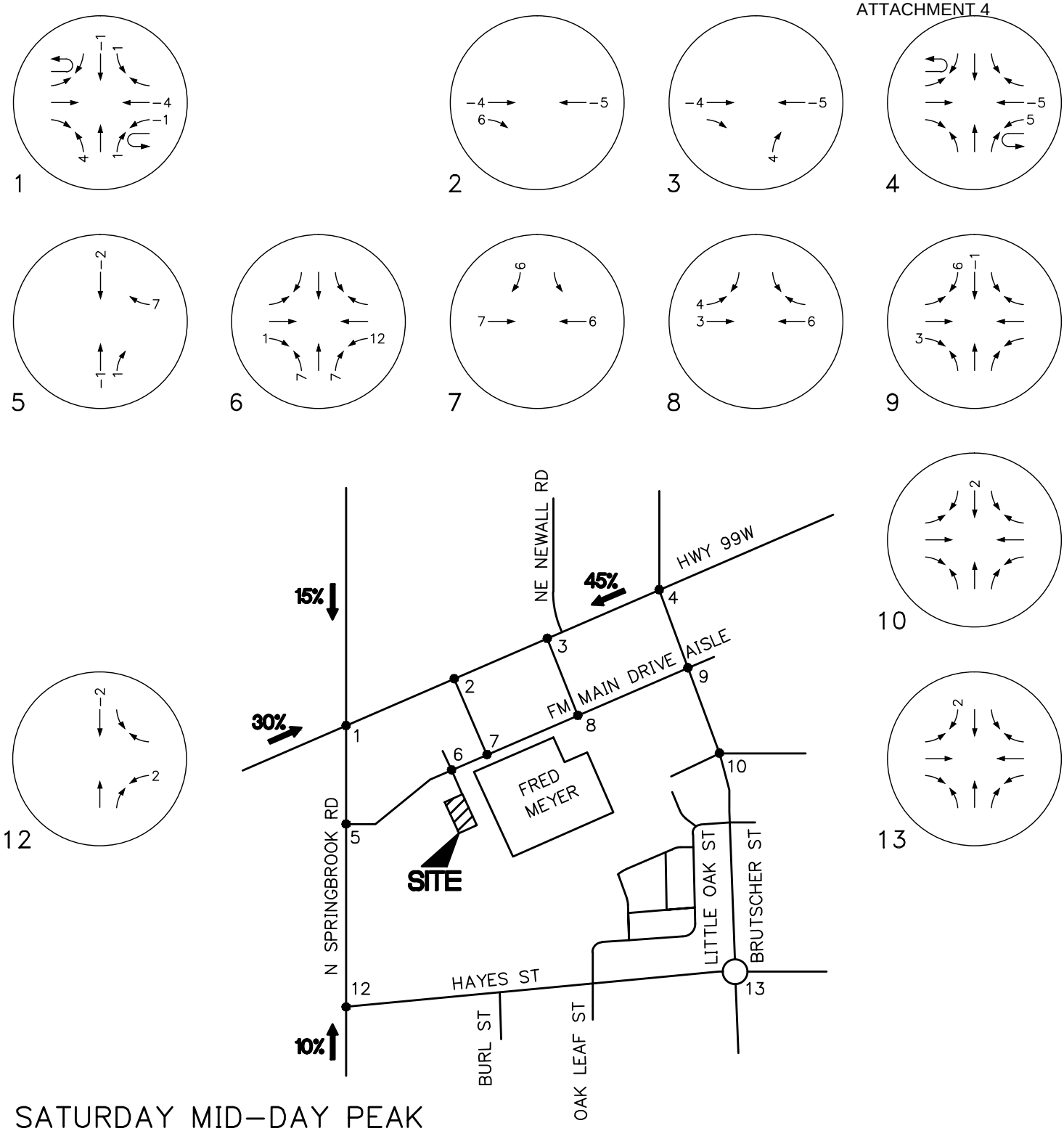
© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

DATE: 10.30.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

SITE PASS-BY TRIP DISTRIBUTION AND ASSIGNMENT WEEKDAY PM PEAK HOUR

FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE
8A



SATURDAY MID-DAY PEAK HOUR SITE PASS-BY TRIPS

ENTER = 13
EXIT = 14
TOTAL = 27

NOT TO SCALE

Portland 503.224.9560 Vancouver 360.695.7879 Seattle 206.749.9993
www.mcknze.com
Architecture • Interiors
Planning • Engineering
MACKENZIE.

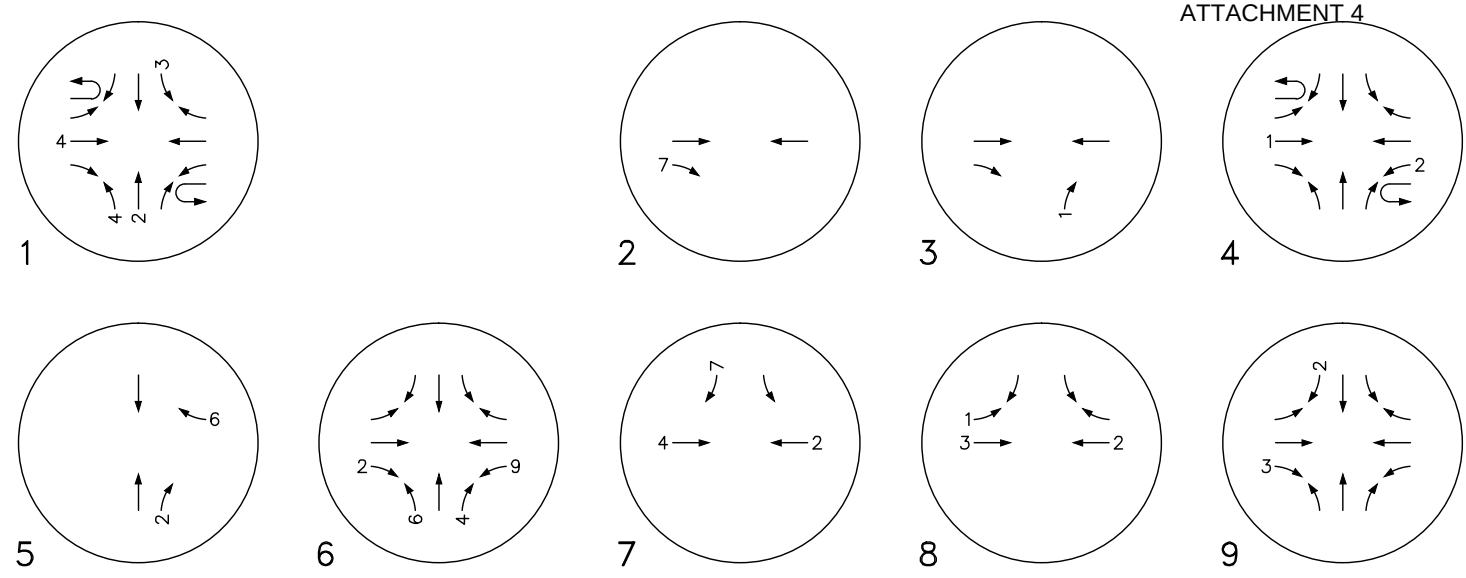
© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

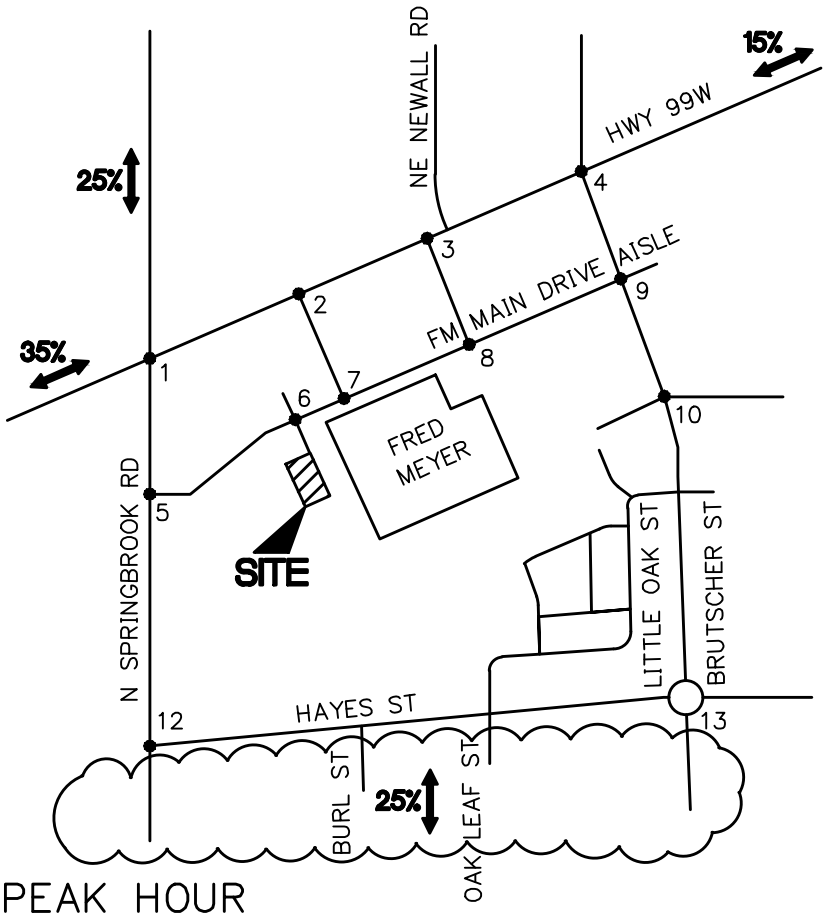
DATE: 10.31.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

SITE PASS-BY TRIP DISTRIBUTION AND ASSIGNMENT SATURDAY MID-DAY PEAK HOUR

FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE
8B





WEEKDAY PM PEAK HOUR SITE PRIMARY TRIPS

ENTER = 11
EXIT = 10
TOTAL = 21

NOT TO SCALE

Portland 503.224.9560 Vancouver 360.695.7879 Seattle 206.749.9993
www.mcknze.com
Architecture • Interiors
Planning • Engineering
MACKENZIE.

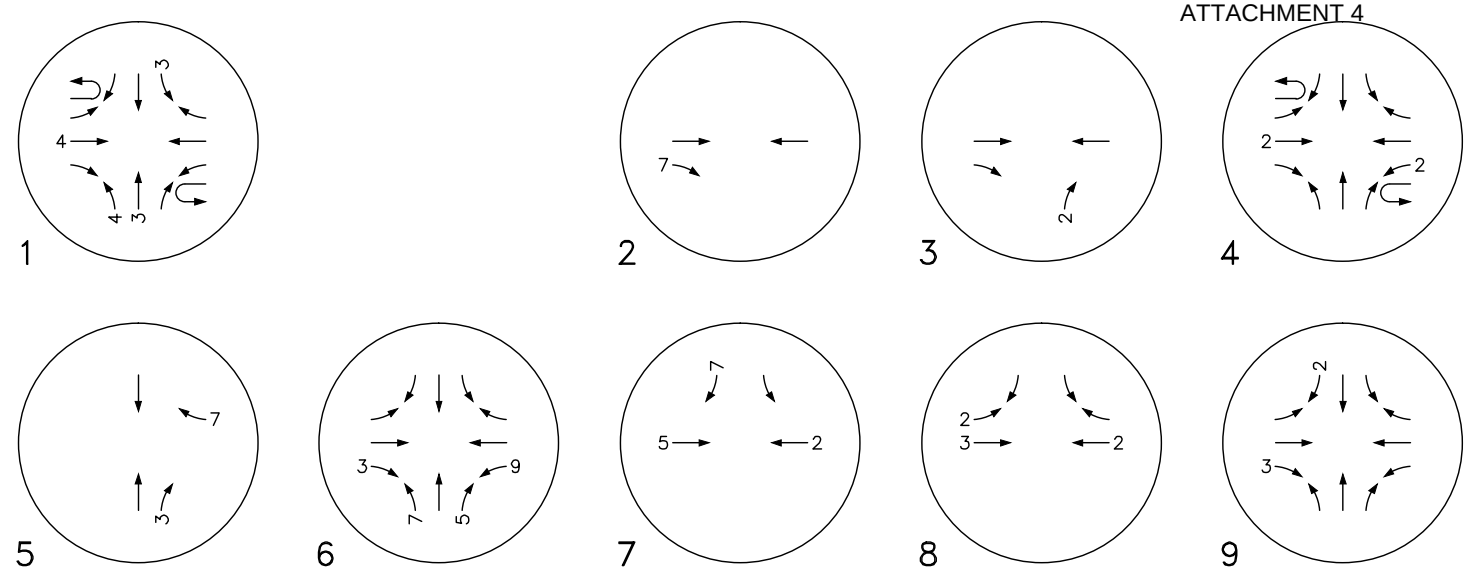
© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

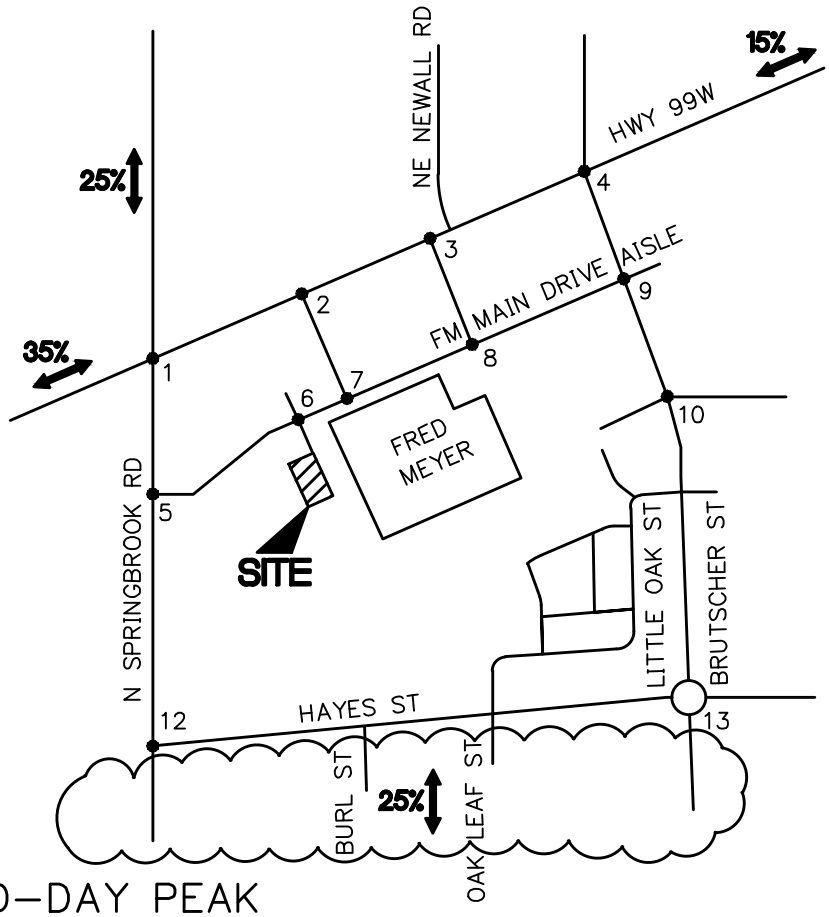
DATE: 10.30.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

SITE PRIMARY TRIP DISTRIBUTION AND ASSIGNMENT WEEKDAY PM PEAK HOUR

FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE
9A





SATURDAY MID-DAY PEAK HOUR SITE PRIMARY TRIPS

ENTER = 12
EXIT = 12
TOTAL = 24

NOT TO SCALE

Portland 503.224.9560 Vancouver 360.695.7879 Seattle 206.749.9993
www.mcknze.com
Architecture • Interiors
Planning • Engineering
MACKENZIE

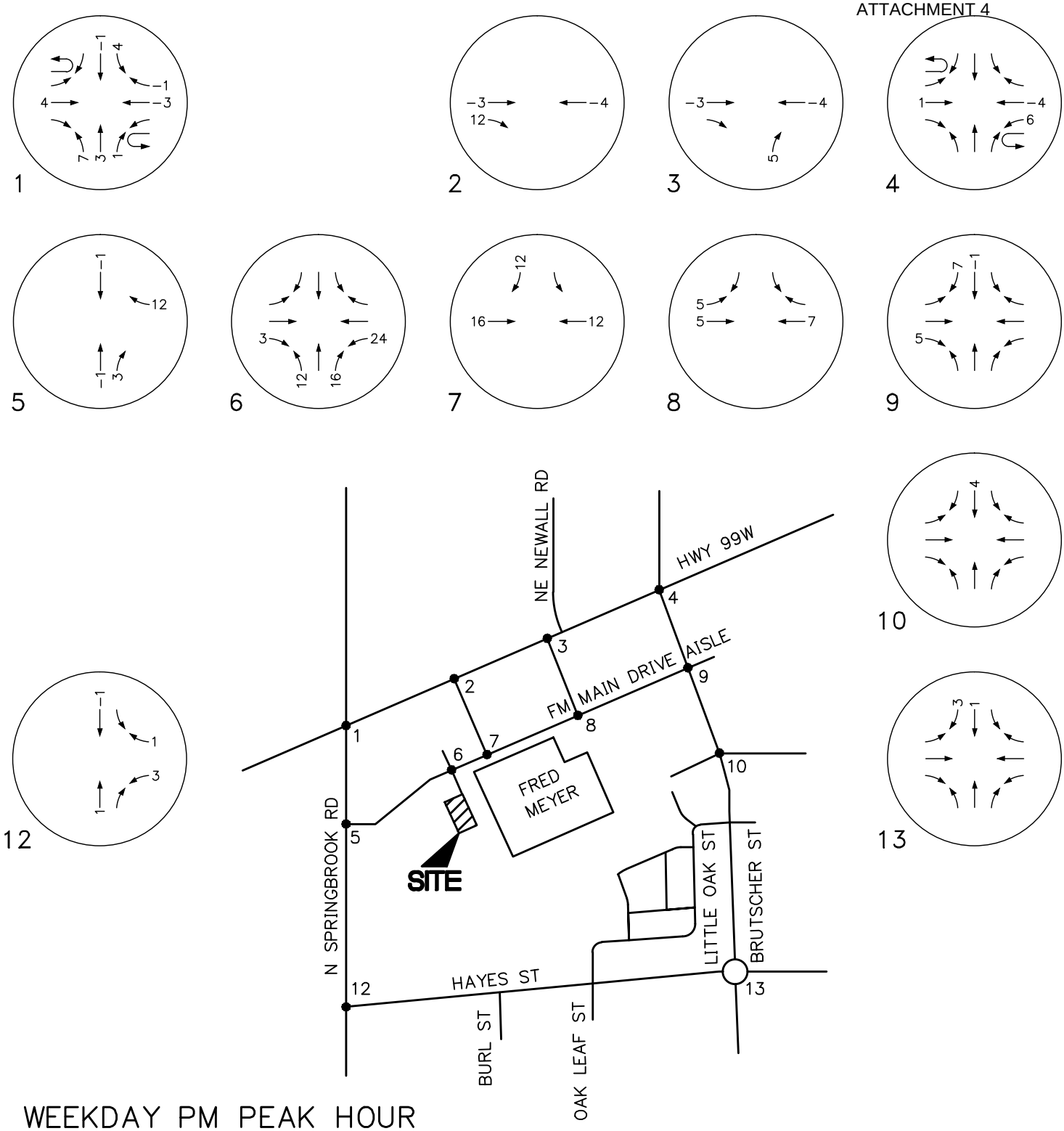
© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

DATE: 10.30.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

SITE PRIMARY TRIP DISTRIBUTION AND ASSIGNMENT SATURDAY MID-DAY PEAK HOUR

FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE 9B



WEEKDAY PM PEAK HOUR TOTAL SITE TRIPS

ENTER = 27
EXIT = 28
TOTAL = 55

NOT TO SCALE

Portland 503.224.9560 Vancouver 360.695.7879 Seattle 206.749.9993
www.mcknze.com
Architecture • Interiors
Planning • Engineering
MACKENZIE.

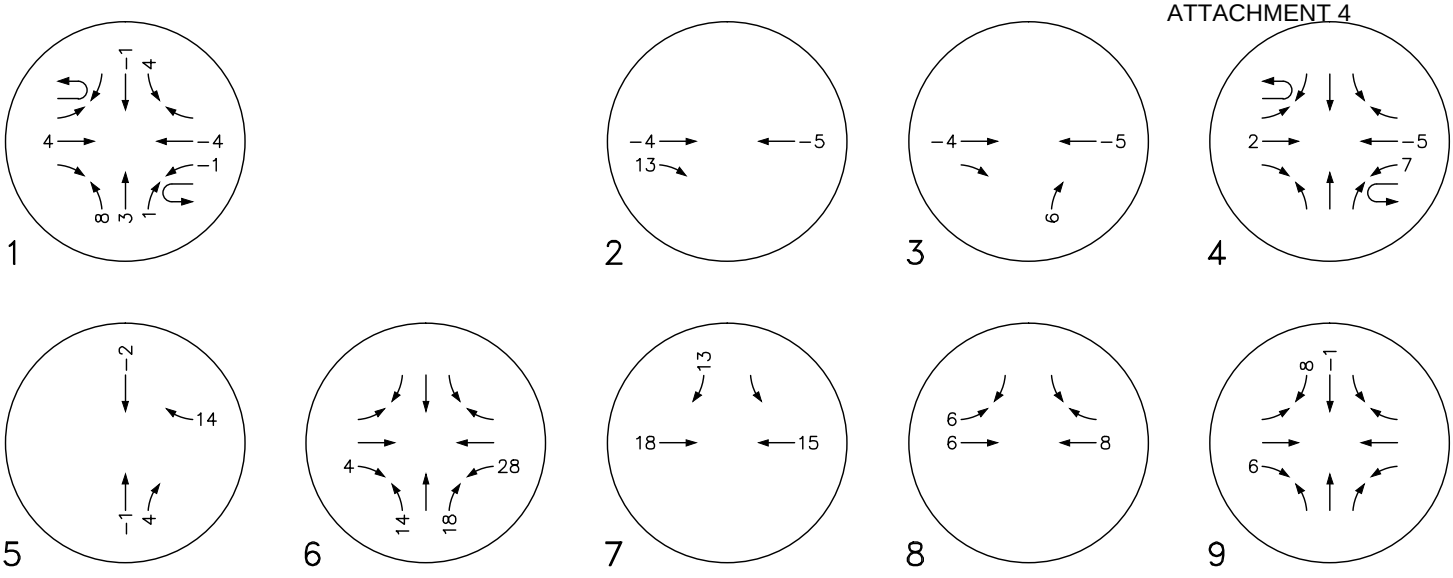
© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

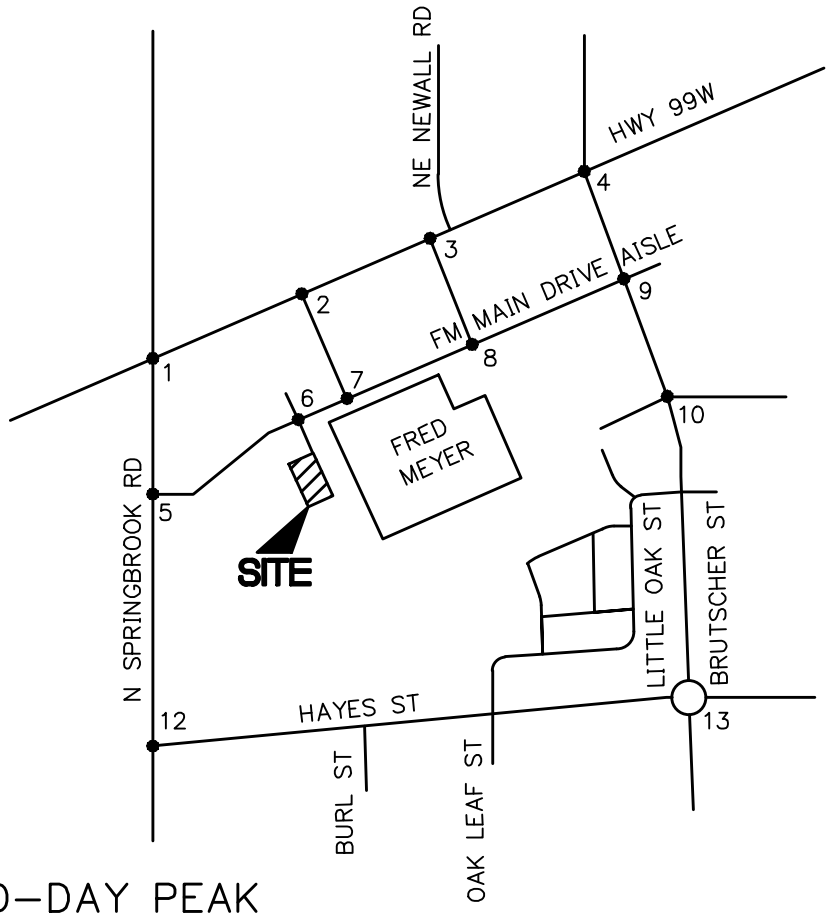
DATE: 10.30.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

TOTAL SITE TRIP ASSIGNMENT WEEKDAY PM PEAK HOUR

FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE
10A





SATURDAY MID-DAY PEAK HOUR TOTAL SITE TRIPS

ENTER = 32
EXIT = 32
TOTAL = 64

NOT TO SCALE

Portland 503.224.9560 Vancouver 360.695.7879 Seattle 206.749.9993
www.mcknze.com
Architecture • Interiors
Planning • Engineering
MACKENZIE.

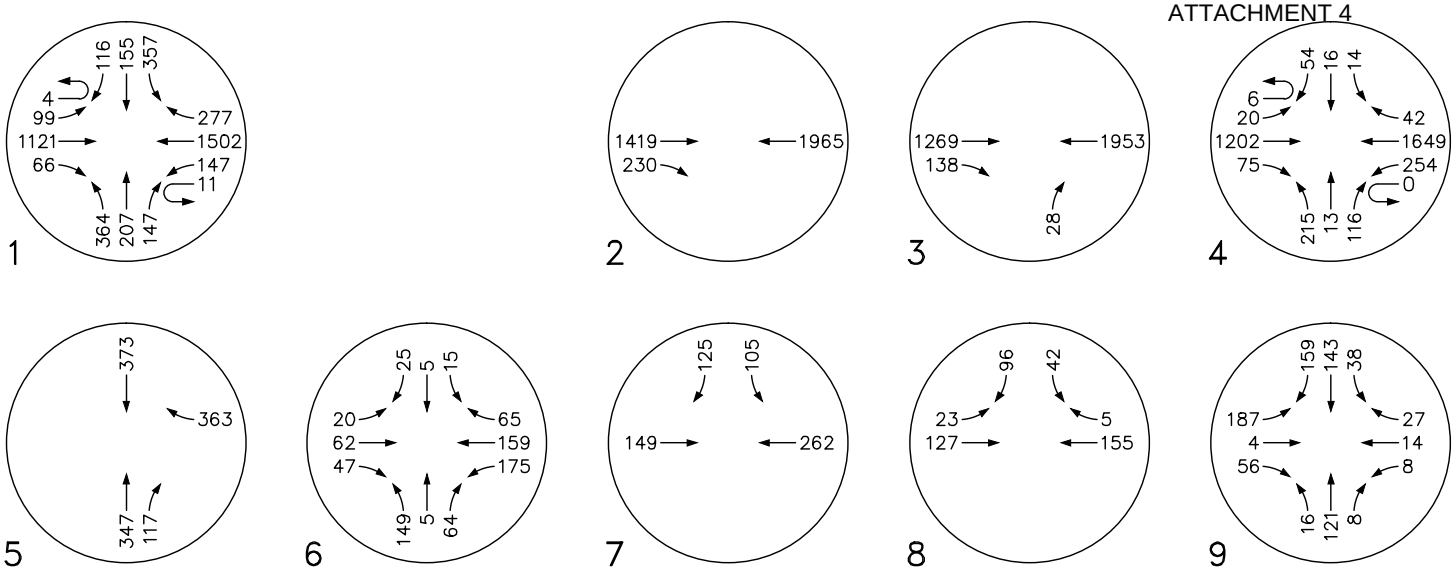
© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

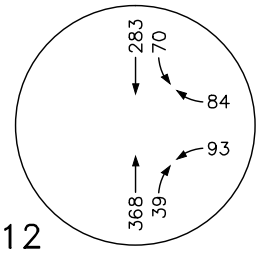
DATE: 10.30.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

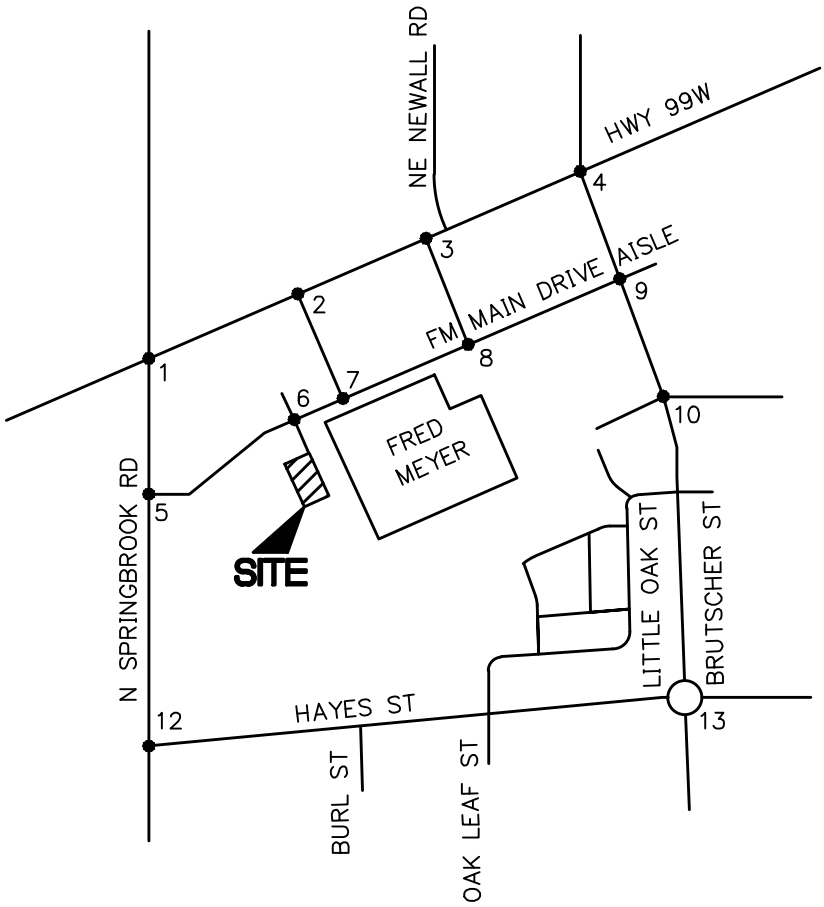
TOTAL SITE TRIP ASSIGNMENT SATURDAY MID-DAY PEAK HOUR

FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE
10B







NOT TO SCALE

Portland 503.224.9560 | Vancouver 360.695.7879 | Seattle 206.749.9993
www.mcknze.com
Architecture • Interiors
Planning • Engineering
MACKENZIE

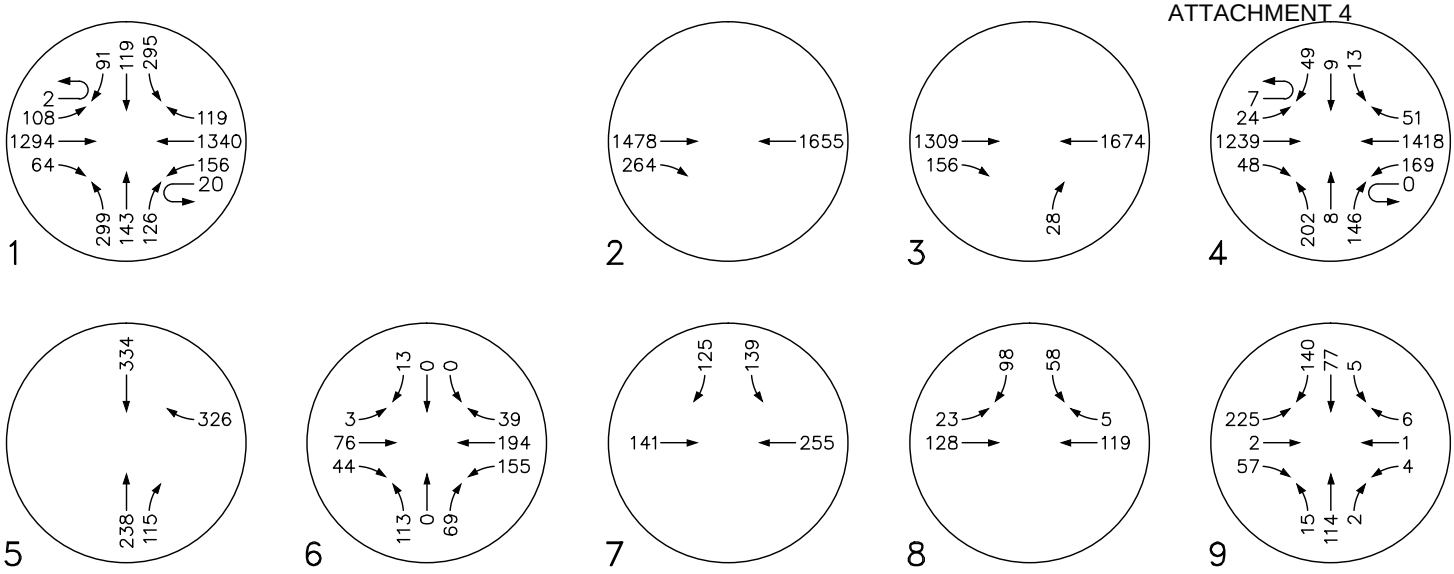
© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

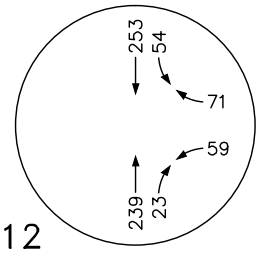
DATE: 10.30.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

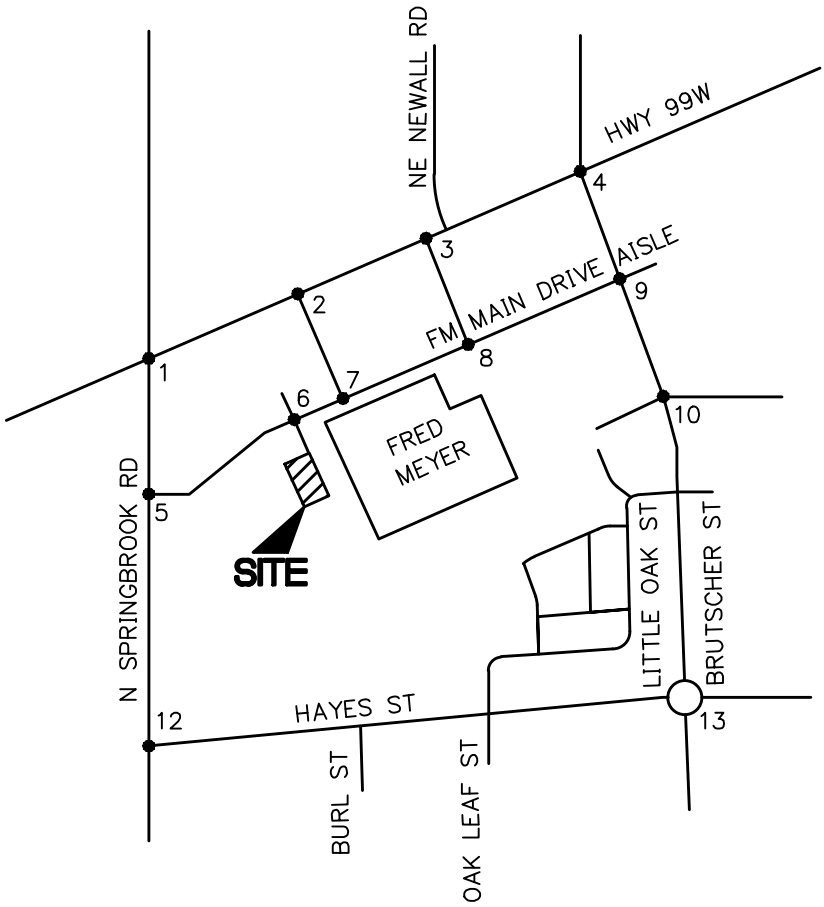
2015 POST-DEVELOPMENT VOLUMES WEEKDAY PM PEAK HOUR

FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE
11A







NOT TO SCALE

Portland 503.224.9560 | Vancouver 360.695.7879 | Seattle 206.749.9993
www.mcknze.com
Architecture ▪ Interiors
Planning ▪ Engineering
MACKENZIE

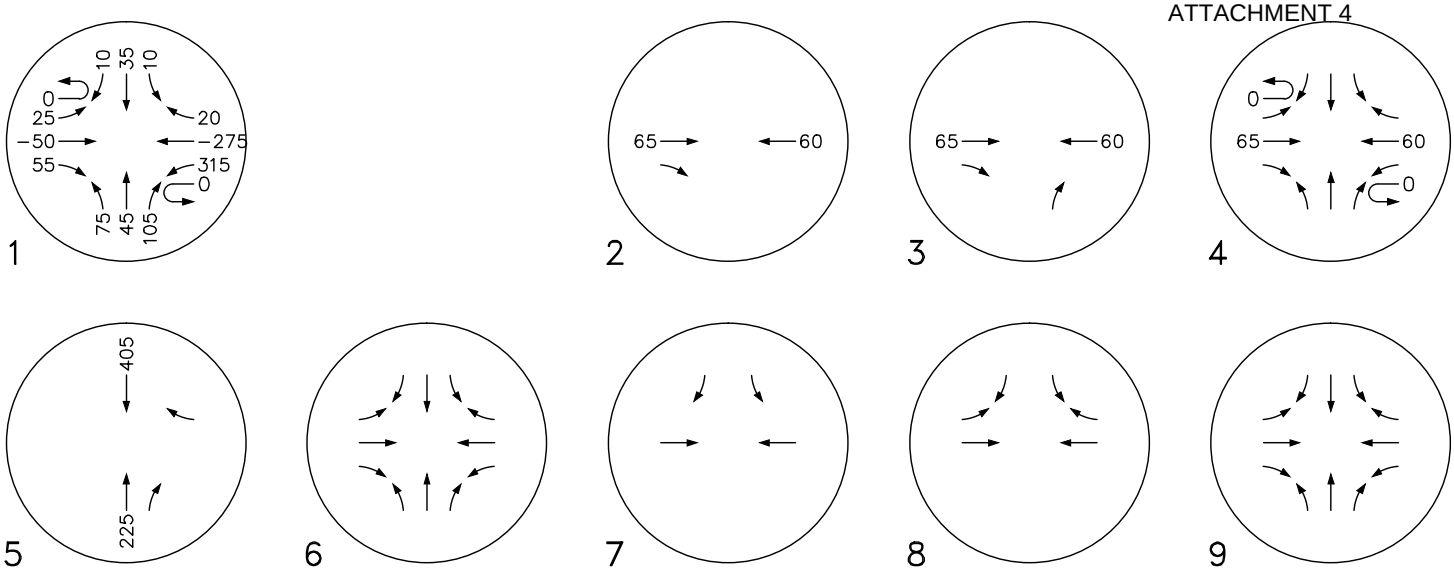
© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

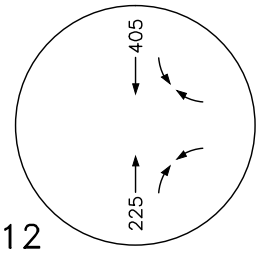
DATE: 10.30.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

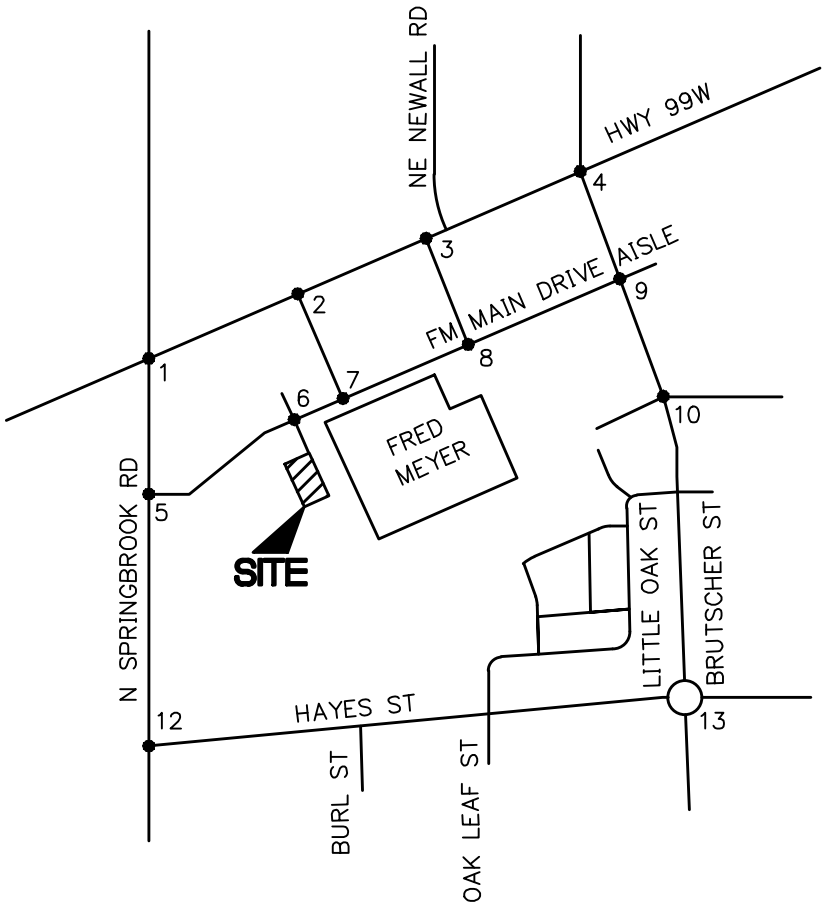
2015 POST-DEVELOPMENT VOLUMES SATURDAY MID-DAY PEAK HOUR

FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE
11B







NOT TO SCALE

Portland 503.224.9560 | Vancouver 360.695.7879 | Seattle 206.749.9993
www.mcknze.com
Architecture ▪ Interiors
Planning ▪ Engineering
MACKENZIE

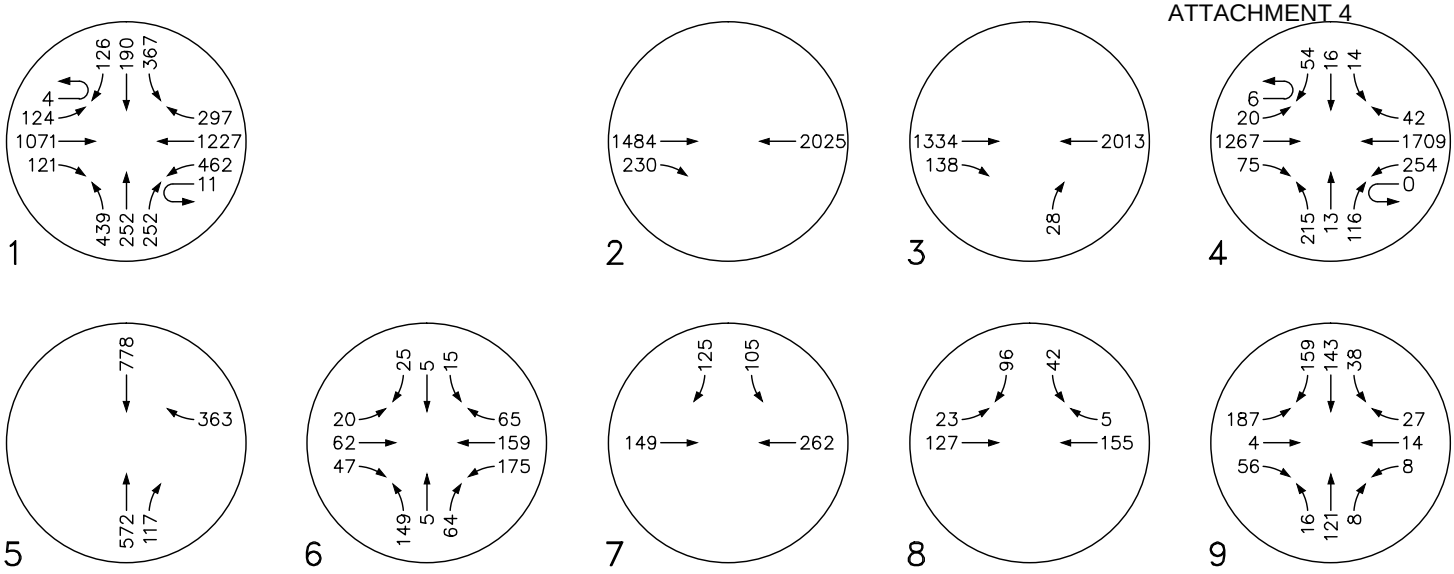
© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

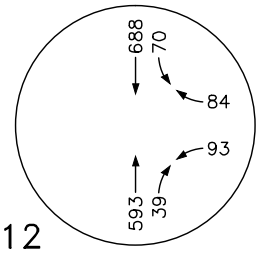
DATE: 11.03.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

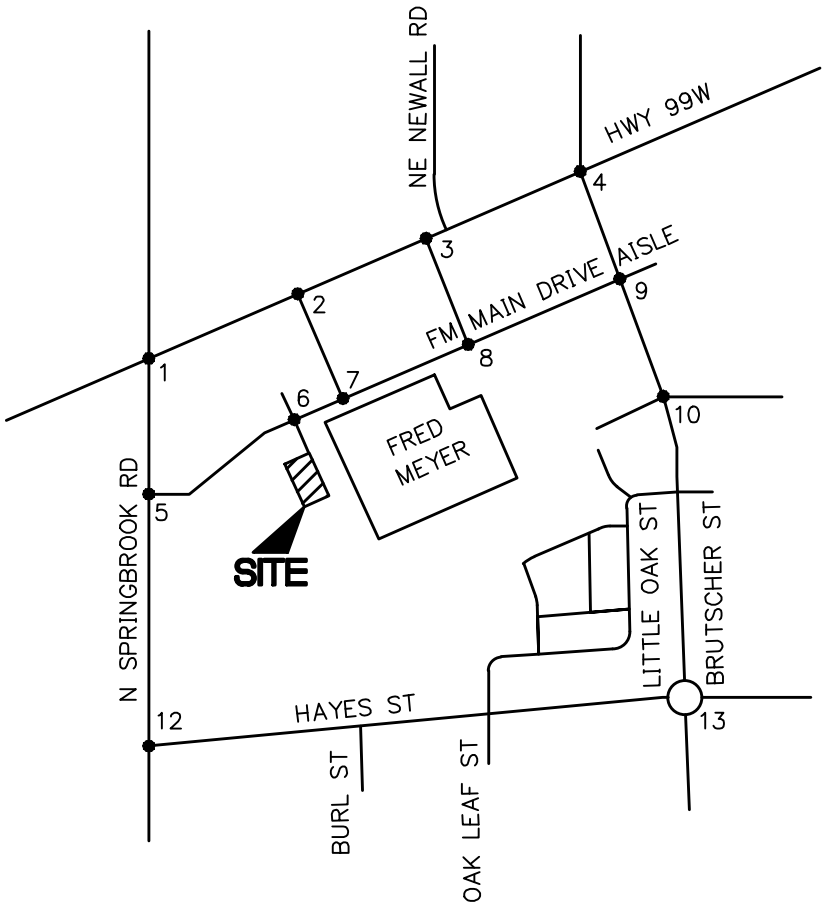
PHASE 1 BY-PASS REROUTE VOLUMES WEEKDAY PM PEAK HOUR

FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE
12







NOT TO SCALE

Portland 503.224.9560 Vancouver 360.695.7879 Seattle 206.749.9993
www.mcknze.com
Architecture • Interiors
Planning • Engineering
MACKENZIE

© MACKENZIE 2014 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

DATE: 11.03.14
DRAWN BY: DWS
CHECKED BY: BTA
JOB NO: 2140436.00

2017 POST-DEVELOPMENT VOLUMES WEEKDAY PM PEAK HOUR

FRED MEYER #220 FUEL EXPANSION
NEWBERG, OREGON

FIGURE
13

APPENDIX C

TRAFFIC COUNT SUMMARIES

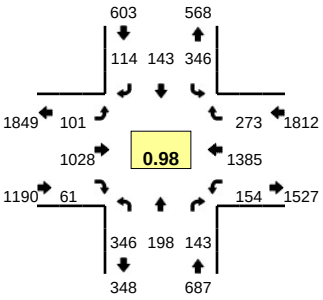
Type of peak hour being reported: User-Defined

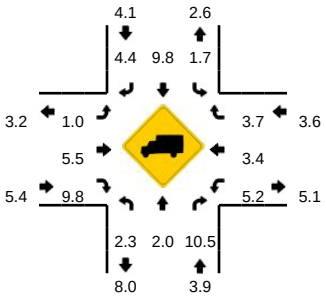
Method for determining peak hour: Total Entering Volume

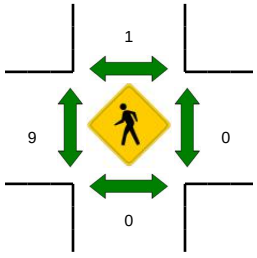
LOCATION: N Springbrook Rd -- Hwy 99W
CITY/STATE: Newberg, OR

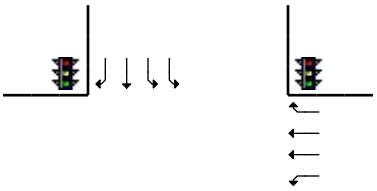
QC JOB #: 13121419
DATE: Thu, Oct 16 2014

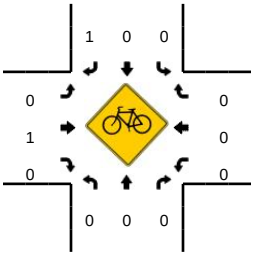
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:00 PM -- 4:15 PM

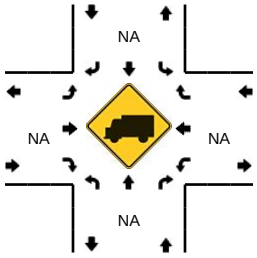


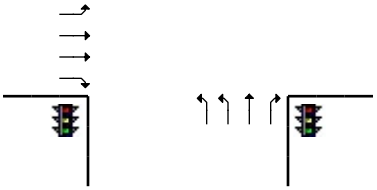


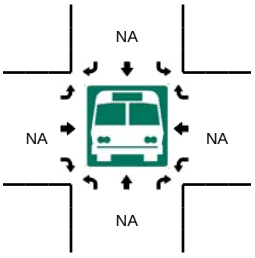












5-Min Count Period Beginning At	N Springbrook Rd (Northbound)				N Springbrook Rd (Southbound)				Hwy 99W (Eastbound)				Hwy 99W (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	26	13	8	0	25	8	13	0	11	69	8	0	9	172	22	1	385	
4:05 PM	34	20	13	0	20	6	9	0	10	85	3	0	18	122	22	1	363	
4:10 PM	32	20	12	0	34	17	19	0	10	67	2	0	13	99	22	1	348	
4:15 PM	22	11	11	0	24	11	8	0	8	108	5	0	12	124	22	1	367	
4:20 PM	38	24	11	0	35	10	8	0	3	84	5	0	10	99	30	3	360	
4:25 PM	20	11	13	0	28	5	5	0	6	86	4	0	16	130	22	0	346	
4:30 PM	30	18	12	0	41	19	12	0	5	59	9	0	2	106	26	2	341	
4:35 PM	24	12	12	0	25	6	10	0	11	106	6	0	10	125	21	0	368	
4:40 PM	44	20	8	0	38	16	6	0	3	78	3	0	17	103	28	0	364	
4:45 PM	14	14	11	0	26	12	9	0	15	121	8	2	9	110	13	0	364	
4:50 PM	39	26	19	0	34	22	11	0	10	62	2	1	14	86	21	1	348	
4:55 PM	23	9	13	0	16	11	4	0	5	103	6	1	14	109	24	0	338	4292
5:00 PM	35	18	14	0	23	13	13	0	12	64	6	0	12	69	28	0	307	4214
5:05 PM	20	11	9	0	25	10	4	0	9	103	2	1	11	138	26	0	369	4220
5:10 PM	38	29	10	0	36	17	12	0	16	75	4	0	15	96	22	0	370	4242
5:15 PM	29	16	14	0	23	10	8	0	5	84	5	0	15	132	36	0	377	4252
5:20 PM	32	19	12	0	39	18	7	0	16	80	8	0	5	97	24	1	358	4250
5:25 PM	17	12	7	0	33	11	8	0	5	91	1	0	15	135	16	4	355	4259
5:30 PM	24	21	16	0	37	15	5	0	5	76	4	0	5	91	16	0	315	4233
5:35 PM	15	14	4	0	19	12	8	0	8	101	3	0	11	134	24	1	354	4219
5:40 PM	23	19	10	0	29	15	14	0	8	81	10	0	16	103	26	3	357	4212
5:45 PM	24	9	12	0	21	13	4	0	7	84	5	0	10	127	17	0	333	4181
5:50 PM	36	15	7	0	31	13	6	0	7	70	5	0	11	77	26	0	304	4137
5:55 PM	14	14	9	0	24	7	3	0	13	90	5	0	6	102	18	0	305	4104

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	368	212	132	0	316	124	164	0	124	884	52	0	160	1572	264	12	4384
Heavy Trucks	16	8	20		0	24	12		0	68	12		8	40	24		232
Pedestrians		0				0				4				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/23/2014 7:09 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

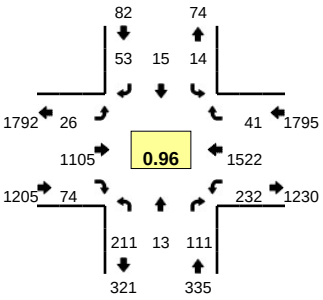
Type of peak hour being reported: User-Defined

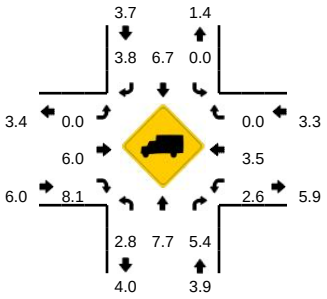
Method for determining peak hour: Total Entering Volume

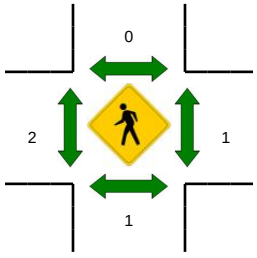
LOCATION: Brutscher St -- Hwy 99W
CITY/STATE: Newberg, OR

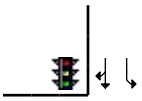
QC JOB #: 13121417
DATE: Thu, Oct 16 2014

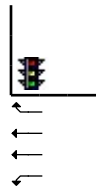
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:25 PM -- 4:40 PM

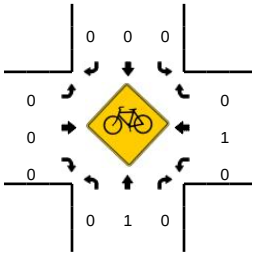


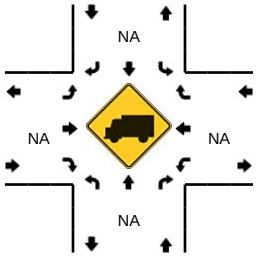


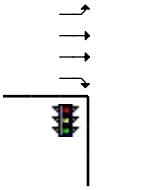


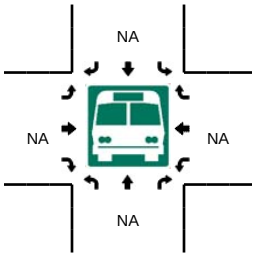












5-Min Count Period Beginning At	Brutscher St (Northbound)				Brutscher St (Southbound)				Hwy 99W (Eastbound)				Hwy 99W (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	15	2	13	0	2	2	4	0	0	65	6	0	22	114	3	0	248	
4:05 PM	14	0	7	0	0	1	5	0	2	92	2	0	19	146	3	0	291	
4:10 PM	21	3	10	0	2	3	5	0	2	79	4	0	24	103	2	0	258	
4:15 PM	20	0	8	0	2	1	2	0	2	101	8	0	16	143	5	0	308	
4:20 PM	17	0	10	0	0	0	5	0	2	78	10	2	30	119	2	0	275	
4:25 PM	11	0	9	0	0	0	5	0	1	102	13	1	12	147	4	0	305	
4:30 PM	23	5	9	0	2	2	4	0	0	69	5	0	21	137	4	0	281	
4:35 PM	16	0	9	0	0	0	7	0	2	119	3	1	15	131	1	0	304	
4:40 PM	16	1	9	0	5	1	3	0	4	90	4	1	17	117	5	0	273	
4:45 PM	12	0	3	0	0	4	3	0	2	121	8	0	19	128	3	0	303	
4:50 PM	29	1	14	0	0	1	3	0	2	71	7	1	21	112	5	0	267	
4:55 PM	17	1	10	0	1	0	7	0	1	118	4	0	16	125	4	0	304	3417
5:00 PM	18	0	9	0	1	0	2	0	3	56	2	2	26	95	4	0	218	3387
5:05 PM	10	1	8	0	0	3	6	0	0	113	5	0	17	154	2	0	319	3415
5:10 PM	22	2	12	0	1	1	5	0	1	71	8	1	15	136	4	0	279	3436
5:15 PM	14	1	14	0	1	1	4	0	2	104	14	0	10	130	3	0	298	3426
5:20 PM	24	0	8	0	2	2	6	0	5	81	6	0	15	133	5	0	287	3438
5:25 PM	13	1	12	0	0	2	3	0	2	98	12	0	17	155	4	0	319	3452
5:30 PM	21	0	4	0	2	1	5	0	2	81	4	0	23	120	4	0	267	3438
5:35 PM	12	2	11	0	2	1	6	0	0	93	9	2	17	138	3	0	296	3430
5:40 PM	16	1	17	0	1	0	5	0	3	65	6	1	26	108	4	0	253	3410
5:45 PM	13	1	8	0	0	0	8	0	2	93	6	1	10	136	3	0	281	3388
5:50 PM	22	1	6	0	1	2	3	0	3	75	4	0	23	99	2	0	241	3362
5:55 PM	15	0	6	0	2	0	3	0	4	98	7	0	13	120	2	0	270	3328

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	200	20	108	0	8	8	64	0	12	1160	84	8	192	1660	36	0	3560
Heavy Trucks	12	4	4		0	0	8		0	80	8		8	64	0		188
Pedestrians		4				0				4				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/23/2014 7:09 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

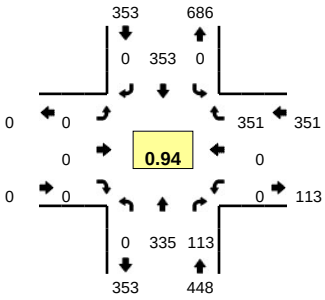
Type of peak hour being reported: User-Defined

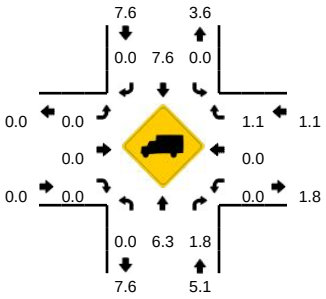
Method for determining peak hour: Total Entering Volume

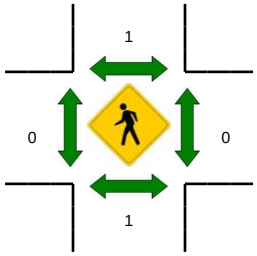
LOCATION: N Springbrook Rd -- Fred Meyer Acc/Main Drive Aisle
CITY/STATE: Newberg, OR

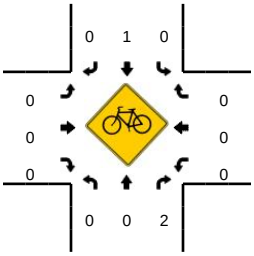
QC JOB #: 13121407
DATE: Thu, Oct 16 2014

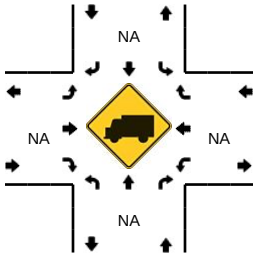
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:40 PM -- 4:55 PM

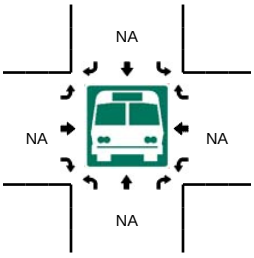












5-Min Count Period Beginning At	N Springbrook Rd (Northbound)				N Springbrook Rd (Southbound)				Fred Meyer Acc/Main Drive Aisle (Eastbound)				Fred Meyer Acc/Main Drive Aisle (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	29	8	0	0	26	0	0	0	0	0	0	0	0	18	0	81	
4:05 PM	0	40	13	0	0	25	0	0	0	0	0	0	0	0	34	0	112	
4:10 PM	0	27	8	0	0	38	0	0	0	0	0	0	0	0	24	0	97	
4:15 PM	0	29	11	0	0	26	0	0	0	0	0	0	0	0	31	0	97	
4:20 PM	0	24	9	0	0	31	0	0	0	0	0	0	0	0	33	0	97	
4:25 PM	0	23	9	0	0	23	0	0	0	0	0	0	0	0	30	0	85	
4:30 PM	0	26	11	0	0	33	0	0	0	0	0	0	0	0	32	0	102	
4:35 PM	0	25	12	0	0	21	0	0	0	0	0	0	0	0	26	0	84	
4:40 PM	0	24	10	0	0	35	0	0	0	0	0	0	0	0	33	0	102	
4:45 PM	0	33	8	0	0	28	0	0	0	0	0	0	0	0	27	0	96	
4:50 PM	0	27	6	0	0	42	0	0	0	0	0	0	0	0	35	0	110	
4:55 PM	0	28	8	0	0	25	0	0	0	0	0	0	0	0	28	0	89	1152
5:00 PM	0	24	8	0	0	37	0	0	0	0	0	0	0	0	37	0	106	1177
5:05 PM	0	37	7	0	0	20	0	0	0	0	0	0	0	0	19	0	83	1148
5:10 PM	0	30	4	0	0	38	0	0	0	0	0	0	0	0	36	0	108	1159
5:15 PM	0	33	9	0	0	29	0	0	0	0	0	0	0	0	32	0	103	1165
5:20 PM	0	28	6	0	0	33	0	0	0	0	0	0	0	0	23	0	90	1158
5:25 PM	0	29	10	0	0	25	0	0	0	0	0	0	0	0	14	0	78	1151
5:30 PM	0	22	7	0	0	30	0	0	0	0	0	0	0	0	32	0	91	1140
5:35 PM	0	17	4	0	0	27	0	0	0	0	0	0	0	0	17	0	65	1121
5:40 PM	0	28	4	0	0	43	0	0	0	0	0	0	0	0	21	0	96	1115
5:45 PM	0	29	10	0	0	22	0	0	0	0	0	0	0	0	25	0	86	1105
5:50 PM	0	24	8	0	0	36	0	0	0	0	0	0	0	0	26	0	94	1089
5:55 PM	0	21	7	0	0	18	0	0	0	0	0	0	0	0	21	0	67	1067

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	336	96	0	0	420	0	0	0	0	0	0	0	0	380	0	1232
Heavy Trucks	0	8	4		0	32	0		0	0	0		0	0	4		48
Pedestrians		0				0				0				0			0
Bicycles	0	0	1		0	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/23/2014 7:09 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

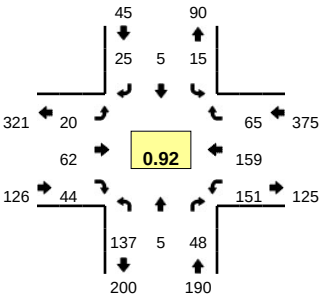
Type of peak hour being reported: User-Defined

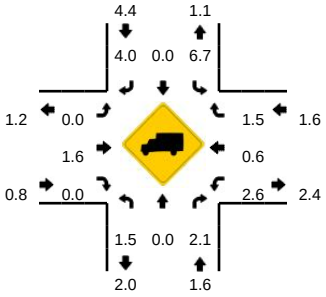
Method for determining peak hour: Total Entering Volume

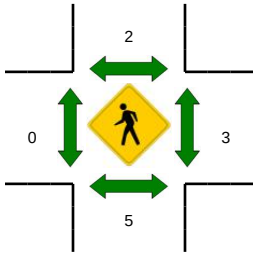
LOCATION: US Bank/Fuel Drive Aisle -- Main Drive Aisle
CITY/STATE: Newberg, OR

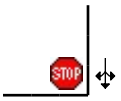
QC JOB #: 13121405
DATE: Thu, Oct 16 2014

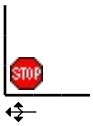
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:30 PM -- 4:45 PM

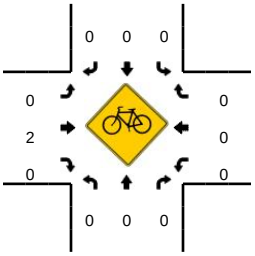


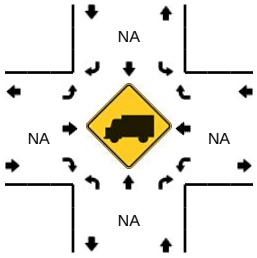


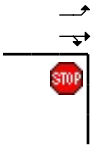


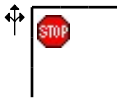


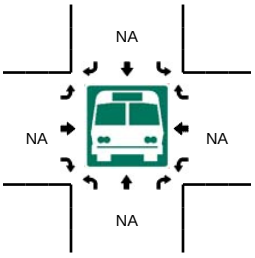












5-Min Count Period Beginning At	US Bank/Fuel Drive Aisle (Northbound)				US Bank/Fuel Drive Aisle (Southbound)				Main Drive Aisle (Eastbound)				Main Drive Aisle (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	6	0	3	0	1	2	1	0	0	8	3	0	9	16	5	0	54	
4:05 PM	15	1	5	0	1	0	1	0	0	7	6	0	17	8	2	0	63	
4:10 PM	9	1	6	0	2	0	2	0	2	5	4	0	16	13	9	0	69	
4:15 PM	11	0	8	0	0	0	1	0	2	6	5	0	9	13	6	0	61	
4:20 PM	12	0	4	0	0	1	2	0	1	4	3	0	10	16	9	0	62	
4:25 PM	9	0	2	0	0	0	3	0	3	3	3	0	14	9	9	0	55	
4:30 PM	10	0	4	0	0	1	3	0	3	6	6	0	15	19	6	0	73	
4:35 PM	12	0	6	0	3	0	1	0	3	8	3	0	15	12	3	0	66	
4:40 PM	14	1	1	0	0	0	1	0	0	6	2	0	19	15	3	0	62	
4:45 PM	14	2	0	0	4	1	3	0	2	5	4	0	7	10	8	0	60	
4:50 PM	15	0	4	0	3	0	5	0	3	1	2	0	11	13	2	0	59	
4:55 PM	10	0	5	0	1	0	2	0	1	3	3	0	9	15	3	0	52	736
5:00 PM	14	0	4	0	0	0	1	0	1	3	5	0	13	17	4	0	62	744
5:05 PM	8	0	5	0	0	1	0	0	2	1	4	0	10	13	6	0	50	731
5:10 PM	10	1	2	0	1	0	1	0	0	1	3	0	13	13	1	0	46	708
5:15 PM	9	0	2	0	3	0	1	1	0	2	5	0	7	20	3	0	53	700
5:20 PM	8	0	6	0	0	0	1	0	0	7	2	0	13	9	2	0	48	686
5:25 PM	9	0	3	0	0	0	1	0	1	6	2	0	18	6	4	0	50	681
5:30 PM	13	0	3	0	1	0	0	0	1	6	2	0	15	16	1	0	58	666
5:35 PM	8	1	6	0	0	0	0	0	0	0	3	0	6	7	4	0	35	635
5:40 PM	7	0	5	0	0	0	3	0	2	2	1	0	17	9	2	0	48	621
5:45 PM	11	0	1	0	0	0	1	0	0	3	6	0	6	14	1	0	43	604
5:50 PM	14	0	1	0	0	0	0	0	0	4	4	0	9	16	0	0	48	593
5:55 PM	8	0	5	0	0	0	0	0	1	4	2	0	7	8	3	0	38	579

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	144	4	44	0	12	4	20	0	24	80	44	0	196	184	48	0	804
Heavy Trucks	4	0	0		0	0	0		0	4	0		4	4	0		16
Pedestrians		0				4				0				4			8
Bicycles	0	0	0		0	0	0		0	1	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/23/2014 7:09 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

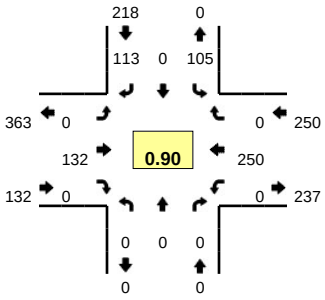
Type of peak hour being reported: User-Defined

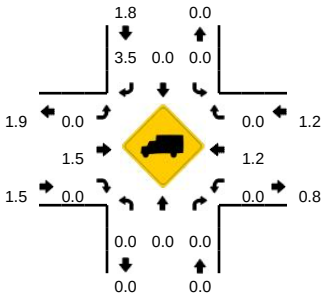
Method for determining peak hour: Total Entering Volume

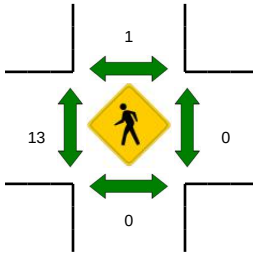
LOCATION: West RI Acc -- Main Drive Aisle
CITY/STATE: Newberg, OR

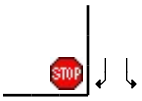
QC JOB #: 13121403
DATE: Thu, Oct 16 2014

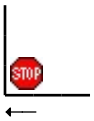
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:10 PM -- 4:25 PM

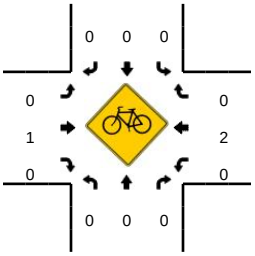


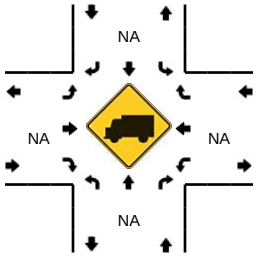


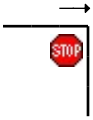


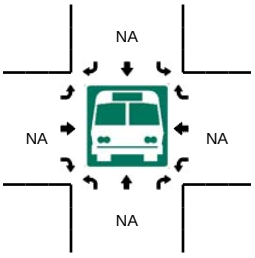












5-Min Count Period Beginning At	West RI Acc (Northbound)				West RI Acc (Southbound)				Main Drive Aisle (Eastbound)				Main Drive Aisle (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	6	0	6	0	0	12	0	0	0	23	0	0	47	
4:05 PM	0	0	0	0	9	0	12	0	0	10	0	0	0	17	0	0	48	
4:10 PM	0	0	0	0	7	0	11	0	0	15	0	0	0	26	0	0	59	
4:15 PM	0	0	0	0	13	0	12	0	0	12	0	0	0	15	0	0	52	
4:20 PM	0	0	0	0	8	0	8	0	0	12	0	0	0	27	0	0	55	
4:25 PM	0	0	0	0	11	0	13	0	0	8	0	0	0	18	0	0	50	
4:30 PM	0	0	0	0	4	0	7	0	0	11	0	0	0	29	0	0	51	
4:35 PM	0	0	0	0	7	0	13	0	0	15	0	0	0	17	0	0	52	
4:40 PM	0	0	0	0	7	0	7	0	0	7	0	0	0	29	0	0	50	
4:45 PM	0	0	0	0	11	0	9	0	0	12	0	0	0	14	0	0	46	
4:50 PM	0	0	0	0	9	0	9	0	0	9	0	0	0	18	0	0	45	
4:55 PM	0	0	0	0	13	0	6	0	0	9	0	0	0	17	0	0	45	600
5:00 PM	0	0	0	0	11	0	6	0	0	6	0	0	0	26	0	0	49	602
5:05 PM	0	0	0	0	14	0	11	0	0	9	0	0	0	17	0	0	51	605
5:10 PM	0	0	0	0	2	0	7	0	0	6	0	0	0	19	0	0	34	580
5:15 PM	0	0	0	0	11	0	8	0	0	8	0	0	0	24	0	0	51	579
5:20 PM	0	0	0	0	7	0	7	0	0	13	0	0	0	16	0	0	43	567
5:25 PM	0	0	0	0	15	0	13	0	0	10	0	0	0	17	0	0	55	572
5:30 PM	0	0	0	0	13	0	10	0	0	10	0	0	0	19	0	0	52	573
5:35 PM	0	0	0	0	17	0	10	0	0	6	0	0	0	10	0	0	43	564
5:40 PM	0	0	0	0	7	0	8	0	0	7	0	0	0	17	0	0	39	553
5:45 PM	0	0	0	0	15	0	3	0	0	6	0	0	0	18	0	0	42	549
5:50 PM	0	0	0	0	6	0	6	0	0	6	0	0	0	16	0	0	34	538
5:55 PM	0	0	0	0	14	0	5	0	0	8	0	0	0	14	0	0	41	534

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	112	0	124	0	0	156	0	0	0	272	0	0	664
Heavy Trucks	0	0	0		0	0	8		0	4	0		0	0	0		12
Pedestrians		0				4				4				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/23/2014 7:09 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

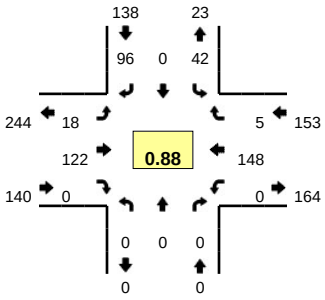
Type of peak hour being reported: User-Defined

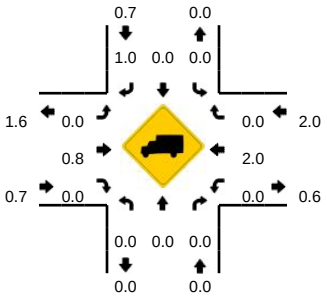
Method for determining peak hour: Total Entering Volume

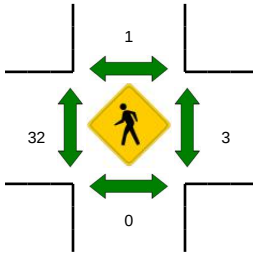
LOCATION: East RIRO Acc -- Main Drive Aisle
CITY/STATE: Newberg, OR

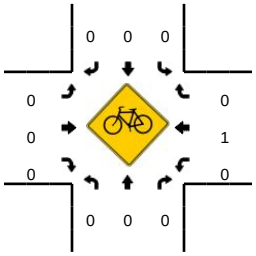
QC JOB #: 13121401
DATE: Thu, Oct 16 2014

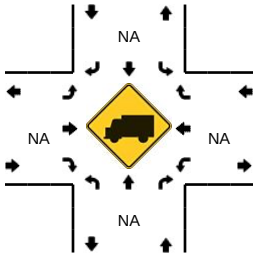
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:25 PM -- 4:40 PM

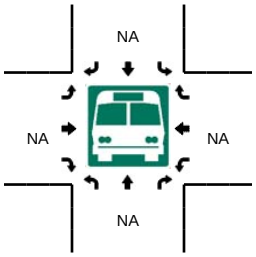












5-Min Count Period Beginning At	East RIRO Acc (Northbound)				East RIRO Acc (Southbound)				Main Drive Aisle (Eastbound)				Main Drive Aisle (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	3	0	5	0	3	6	0	0	0	12	0	0	29	
4:05 PM	0	0	0	0	2	0	9	0	1	10	0	0	0	20	1	0	43	
4:10 PM	0	0	0	0	2	0	3	0	1	10	0	0	0	11	0	0	27	
4:15 PM	0	0	0	0	2	0	13	0	0	12	0	0	0	13	0	0	40	
4:20 PM	0	0	0	0	5	0	7	0	1	10	0	0	0	16	1	0	40	
4:25 PM	0	0	0	0	7	0	7	0	2	14	0	0	0	11	0	0	41	
4:30 PM	0	0	0	0	4	0	8	0	2	12	0	0	0	13	0	0	39	
4:35 PM	0	0	0	0	2	0	13	0	2	10	0	0	0	15	0	0	42	
4:40 PM	0	0	0	0	2	0	9	0	2	3	0	0	0	11	1	0	28	
4:45 PM	0	0	0	0	6	0	7	0	0	15	0	0	0	7	0	0	35	
4:50 PM	0	0	0	0	6	0	5	0	1	11	0	0	0	7	1	0	31	
4:55 PM	0	0	0	0	1	0	10	0	3	9	0	0	0	12	1	0	36	431
5:00 PM	0	0	0	0	3	0	3	0	1	10	0	0	0	8	1	0	26	428
5:05 PM	0	0	0	0	4	0	7	0	1	11	0	0	0	11	0	0	34	419
5:10 PM	0	0	0	0	4	0	4	0	1	13	0	0	0	5	0	0	27	419
5:15 PM	0	0	0	0	3	0	8	0	4	10	0	0	0	14	0	0	39	418
5:20 PM	0	0	0	0	3	0	4	0	1	8	0	0	0	8	0	0	24	402
5:25 PM	0	0	0	0	2	0	11	0	0	13	0	0	0	13	1	0	40	401
5:30 PM	0	0	0	0	2	0	3	0	0	7	0	0	0	5	0	0	17	379
5:35 PM	0	0	0	0	3	0	12	0	4	8	0	0	0	8	0	0	35	372
5:40 PM	0	0	0	0	7	0	8	0	0	12	0	0	0	13	0	0	40	384
5:45 PM	0	0	0	0	4	0	7	0	1	13	0	0	0	8	0	0	33	382
5:50 PM	0	0	0	0	1	0	5	0	5	4	0	0	0	6	0	0	21	372
5:55 PM	0	0	0	0	5	0	2	0	1	9	0	0	0	11	0	0	28	364

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	52	0	112	0	24	144	0	0	0	156	0	0	488
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	8	0		8
Pedestrians		0				0				16				0			16
Bicycles	0	0	0		0	0	0		0	0	0		0	1	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/23/2014 7:09 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

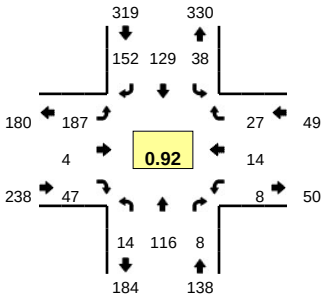
Type of peak hour being reported: User-Defined

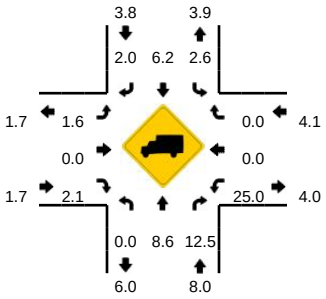
Method for determining peak hour: Total Entering Volume

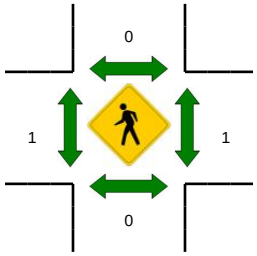
LOCATION: Brutscher St -- Fred Meyer North Acc/Main Drive Aisle
CITY/STATE: Newberg, OR

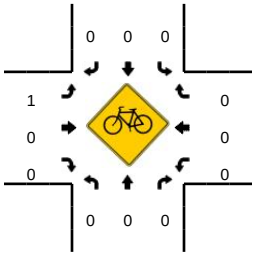
QC JOB #: 13121415
DATE: Thu, Oct 16 2014

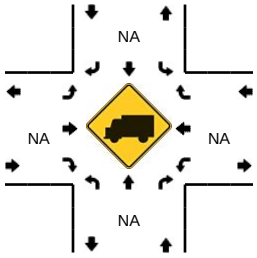
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:20 PM -- 4:35 PM

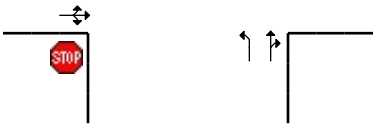


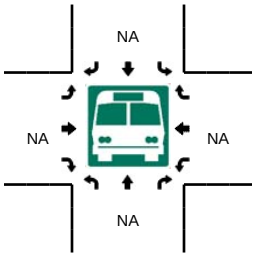












5-Min Count Period Beginning At	Brutscher St (Northbound)				Brutscher St (Southbound)				Fred Meyer North Acc/Main Drive Aisle (Eastbound)				Fred Meyer North Acc/Main Drive Aisle (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	10	1	0	3	11	11	0	15	1	4	0	0	2	1	0	59	
4:05 PM	1	10	2	0	0	6	20	0	14	0	3	0	1	0	0	0	57	
4:10 PM	1	14	1	0	4	10	11	0	16	0	6	0	0	1	3	0	67	
4:15 PM	0	9	0	0	4	10	15	0	14	0	3	0	1	0	2	0	58	
4:20 PM	3	10	0	0	7	17	12	0	15	0	2	0	0	1	2	0	69	
4:25 PM	0	3	0	0	5	15	10	0	17	1	5	0	1	4	5	0	66	
4:30 PM	3	13	0	0	4	11	9	0	13	0	6	0	1	2	5	0	67	
4:35 PM	1	11	2	0	3	6	13	0	15	1	8	0	0	0	3	0	63	
4:40 PM	1	5	0	0	3	7	9	0	16	0	0	0	2	0	1	0	44	
4:45 PM	0	6	2	0	3	15	16	0	13	0	5	0	0	2	4	0	66	
4:50 PM	2	15	0	0	1	13	9	0	22	0	1	0	1	2	1	0	67	
4:55 PM	2	10	0	0	1	8	17	0	17	1	4	0	1	0	0	0	61	744
5:00 PM	2	8	0	0	2	12	10	0	13	0	5	0	0	0	3	0	55	740
5:05 PM	3	8	0	0	1	12	16	0	21	0	4	0	0	0	2	0	67	750
5:10 PM	0	7	0	0	4	9	7	0	15	0	5	0	1	0	4	0	52	735
5:15 PM	0	13	1	0	1	14	13	0	15	0	5	0	1	0	3	0	66	743
5:20 PM	1	11	0	0	1	7	11	0	16	0	2	0	0	0	1	0	50	724
5:25 PM	1	14	0	0	0	14	21	0	17	0	5	0	0	0	1	0	73	731
5:30 PM	1	11	0	0	0	7	15	0	9	0	6	0	0	0	0	0	49	713
5:35 PM	0	12	0	0	1	9	21	0	17	0	1	0	0	0	1	0	62	712
5:40 PM	0	8	1	0	1	14	14	0	18	0	8	0	0	0	1	0	65	733
5:45 PM	1	8	0	0	0	11	8	0	19	0	5	0	0	1	0	0	53	720
5:50 PM	0	13	1	0	0	12	10	0	9	0	2	0	0	0	0	0	47	700
5:55 PM	3	12	0	0	0	14	12	0	17	0	3	0	1	0	0	0	62	701

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	24	104	0	0	64	172	124	0	180	4	52	0	8	28	48	0	808
Heavy Trucks	0	4	0		0	16	4		4	0	0		0	0	0		28
Pedestrians		0				0				4				4			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/23/2014 7:09 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

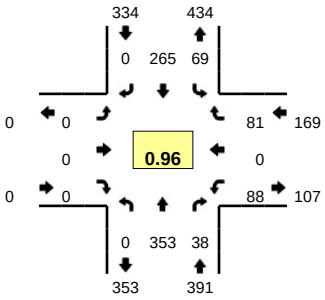
Type of peak hour being reported: User-Defined

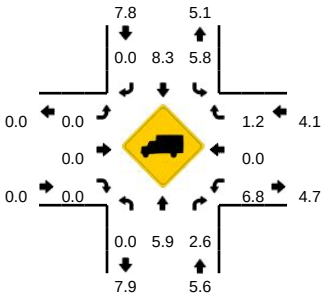
Method for determining peak hour: Total Entering Volume

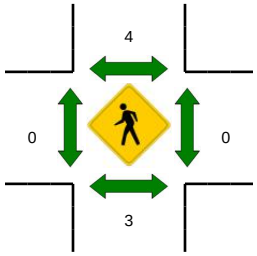
LOCATION: N Springbrook Rd -- Hayes St
CITY/STATE: Newberg, OR

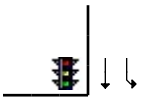
QC JOB #: 13121409
DATE: Thu, Oct 16 2014

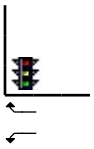
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:40 PM -- 4:55 PM

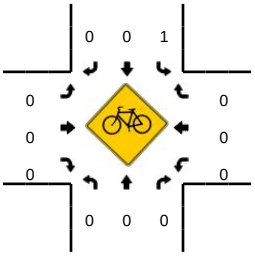


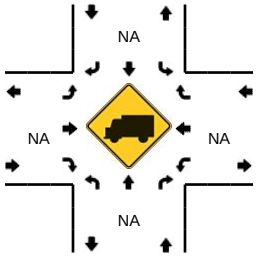


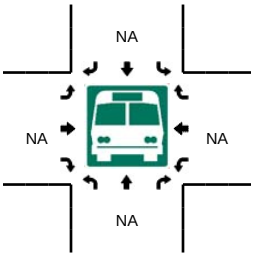












5-Min Count Period Beginning At	N Springbrook Rd (Northbound)				N Springbrook Rd (Southbound)				Hayes St (Eastbound)				Hayes St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	38	0	0	6	18	0	0	0	0	0	0	2	0	6	0	70	
4:05 PM	0	34	7	0	4	20	0	0	0	0	0	0	8	0	5	0	78	
4:10 PM	0	33	5	0	9	26	0	0	0	0	0	0	5	0	4	0	82	
4:15 PM	0	27	3	0	6	20	0	0	0	0	0	0	12	0	5	0	73	
4:20 PM	0	27	2	0	6	24	0	0	0	0	0	0	11	0	5	0	75	
4:25 PM	0	24	3	0	6	15	0	0	0	0	0	0	5	0	7	0	60	
4:30 PM	0	33	4	0	6	27	0	0	0	0	0	0	5	0	10	0	85	
4:35 PM	0	28	6	0	3	15	0	0	0	0	0	0	10	0	7	0	69	
4:40 PM	0	26	1	0	4	31	0	0	0	0	0	0	10	0	6	0	78	
4:45 PM	0	36	4	0	7	18	0	0	0	0	0	0	4	0	8	0	77	
4:50 PM	0	22	2	0	8	32	0	0	0	0	0	0	8	0	7	0	79	
4:55 PM	0	25	1	0	4	19	0	0	0	0	0	0	8	0	11	0	68	894
5:00 PM	0	21	3	0	8	23	0	0	0	0	0	0	11	0	10	0	76	900
5:05 PM	0	34	4	0	4	17	0	0	0	0	0	0	5	0	7	0	71	893
5:10 PM	0	30	3	0	4	27	0	0	0	0	0	0	7	0	9	0	80	891
5:15 PM	0	33	3	0	9	22	0	0	0	0	0	0	10	0	3	0	80	898
5:20 PM	0	28	4	0	10	20	0	0	0	0	0	0	5	0	3	0	70	893
5:25 PM	0	32	3	0	6	20	0	0	0	0	0	0	6	0	9	0	76	909
5:30 PM	0	27	8	0	9	18	0	0	0	0	0	0	6	0	2	0	70	894
5:35 PM	0	12	5	0	5	20	0	0	0	0	0	0	4	0	10	0	56	881
5:40 PM	0	21	2	0	10	33	0	0	0	0	0	0	7	0	9	0	82	885
5:45 PM	0	31	2	0	5	17	0	0	0	0	0	0	3	0	4	0	62	870
5:50 PM	0	26	2	0	8	19	0	0	0	0	0	0	3	0	5	0	63	854
5:55 PM	0	17	2	0	3	10	0	0	0	0	0	0	6	0	6	0	44	830

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	336	28	0	76	324	0	0	0	0	0	0	88	0	84	0	936
Heavy Trucks	0	12	4		4	28	0		0	0	0		8	0	0		56
Pedestrians		0				8				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/23/2014 7:09 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

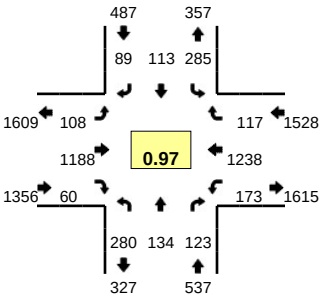
Type of peak hour being reported: User-Defined

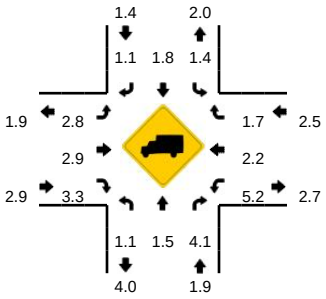
Method for determining peak hour: Total Entering Volume

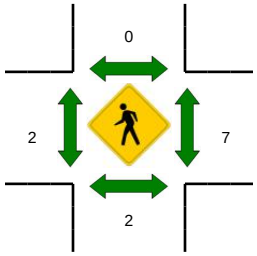
LOCATION: N Springbrook Rd -- Hwy 99W
CITY/STATE: Newberg, OR

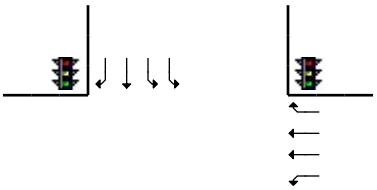
QC JOB #: 13121420
DATE: Sat, Oct 18 2014

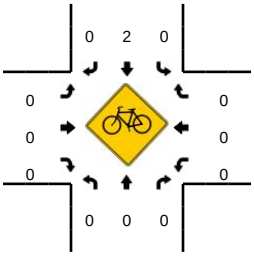
Peak-Hour: 1:00 PM -- 2:00 PM
Peak 15-Min: 1:30 PM -- 1:45 PM

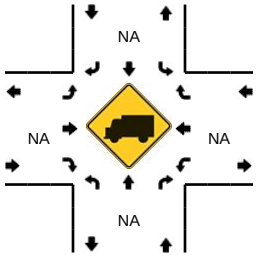


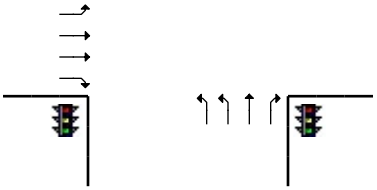


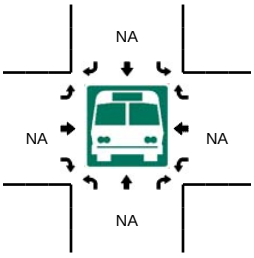












15-Min Count Period Beginning At	N Springbrook Rd (Northbound)				N Springbrook Rd (Southbound)				Hwy 99W (Eastbound)				Hwy 99W (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	71	42	26	0	94	25	32	0	20	260	17	1	12	286	31	0	917	
11:15 AM	82	27	20	1	103	24	29	0	22	281	18	0	13	322	43	4	989	
11:30 AM	77	25	31	0	68	18	25	0	29	284	21	1	21	287	35	5	927	
11:45 AM	60	41	27	0	77	22	19	0	39	286	15	0	21	314	37	6	964	3797
12:00 PM	69	37	39	0	71	24	25	0	27	284	10	1	17	324	33	8	969	3849
12:15 PM	59	27	31	0	66	20	31	0	24	281	15	2	17	342	30	5	950	3810
12:30 PM	63	40	20	0	70	20	28	0	28	283	10	1	40	330	31	4	968	3851
12:45 PM	63	37	33	0	74	21	34	0	28	253	16	0	42	306	40	6	953	3840
1:00 PM	74	33	32	0	68	21	24	0	25	282	17	0	49	316	29	4	974	3845
1:15 PM	79	27	33	0	75	28	22	0	29	287	13	1	30	278	26	8	936	3831
1:30 PM	54	37	31	0	76	36	25	0	27	304	16	1	45	332	25	3	1012	3875
1:45 PM	73	37	27	0	66	28	18	0	25	315	14	0	30	312	37	4	986	3908

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	216	148	124	0	304	144	100	0	108	1216	64	4	180	1328	100	12	4048
Heavy Trucks	0	0	8		12	8	4		0	28	0		16	32	0		108
Pedestrians		0				0				4				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/27/2014 12:14 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

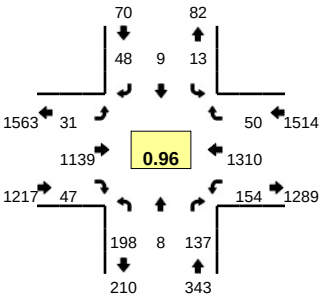
Type of peak hour being reported: User-Defined

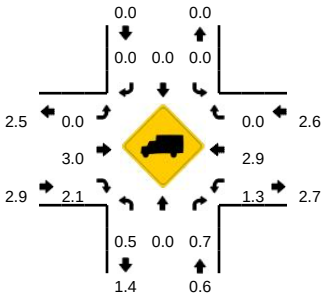
Method for determining peak hour: Total Entering Volume

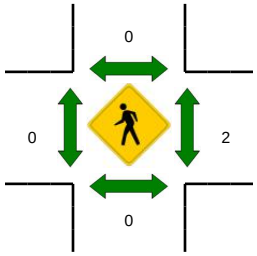
LOCATION: Brutscher St -- Hwy 99W
CITY/STATE: Newberg, OR

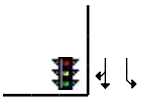
QC JOB #: 13121418
DATE: Sat, Oct 18 2014

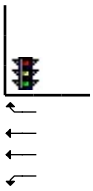
Peak-Hour: 1:00 PM -- 2:00 PM
Peak 15-Min: 1:30 PM -- 1:45 PM

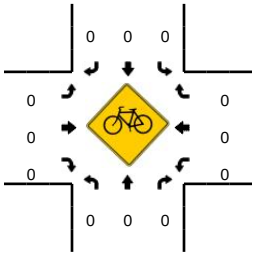


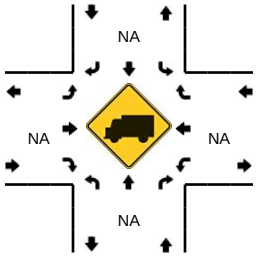


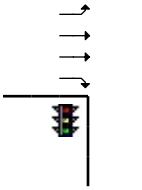


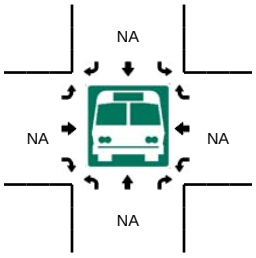












15-Min Count Period Beginning At	Brutscher St (Northbound)				Brutscher St (Southbound)				Hwy 99W (Eastbound)				Hwy 99W (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	34	3	23	0	2	1	19	0	8	251	14	2	25	342	7	0	731	
11:15 AM	46	4	22	0	10	2	12	0	11	283	12	3	32	309	12	0	758	
11:30 AM	44	3	39	0	5	3	12	0	8	254	12	5	36	314	5	0	740	
11:45 AM	43	3	25	0	5	1	10	0	6	300	12	1	35	364	8	0	813	3042
12:00 PM	41	4	49	0	8	4	16	0	9	269	5	0	36	326	11	0	778	3089
12:15 PM	42	3	24	0	3	2	6	0	9	255	9	2	40	388	5	0	788	3119
12:30 PM	53	6	38	0	4	2	12	0	5	261	14	3	46	346	15	0	805	3184
12:45 PM	46	3	26	0	2	4	17	0	3	272	3	3	33	359	10	0	781	3152
1:00 PM	44	3	38	0	2	2	12	0	6	256	10	1	42	336	7	0	759	3133
1:15 PM	49	0	32	0	5	0	10	0	6	295	10	2	34	313	15	0	771	3116
1:30 PM	57	1	36	0	5	2	10	0	3	292	11	4	40	339	16	0	816	3127
1:45 PM	48	4	31	0	1	5	16	0	9	296	16	0	38	322	12	0	798	3144

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	228	4	144	0	20	8	40	0	12	1168	44	16	160	1356	64	0	3264
Heavy Trucks	0	0	0		0	0	0		0	36	0		4	40	0		80
Pedestrians		0				0				0				8			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/27/2014 12:14 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

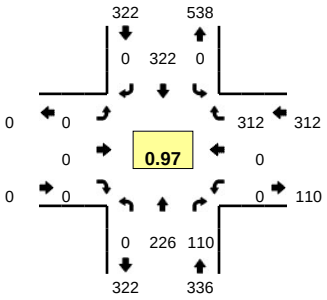
Type of peak hour being reported: User-Defined

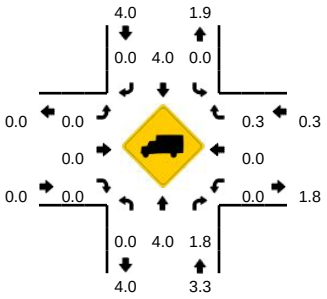
Method for determining peak hour: Total Entering Volume

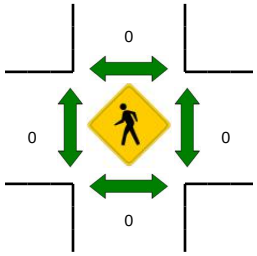
LOCATION: N Springbrook Rd -- Fred Meyer Acc/Main Drive Aisle
CITY/STATE: Newberg, OR

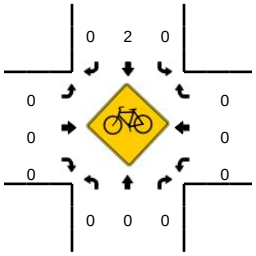
QC JOB #: 13121408
DATE: Sat, Oct 18 2014

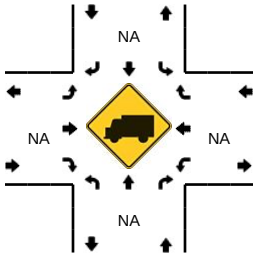
Peak-Hour: 1:00 PM -- 2:00 PM
Peak 15-Min: 1:30 PM -- 1:45 PM

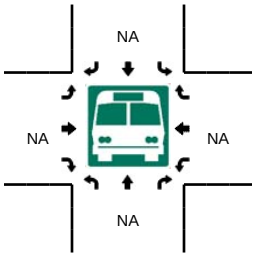












15-Min Count Period Beginning At	N Springbrook Rd (Northbound)				N Springbrook Rd (Southbound)				Fred Meyer Acc/Main Drive Aisle (Eastbound)				Fred Meyer Acc/Main Drive Aisle (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	63	24	0	0	63	0	0	0	0	0	0	0	0	68	0	218	
11:15 AM	0	64	22	0	0	63	0	0	0	0	0	0	0	0	66	0	215	
11:30 AM	0	58	19	0	0	60	0	0	0	0	0	0	0	0	75	0	212	
11:45 AM	0	44	17	0	0	58	0	0	0	0	0	0	0	0	80	0	199	844
12:00 PM	0	69	21	0	0	53	0	0	0	0	0	0	0	0	74	0	217	843
12:15 PM	0	61	25	0	0	53	0	0	0	0	0	0	0	0	60	0	199	827
12:30 PM	0	50	24	0	0	68	0	0	0	0	0	0	0	0	67	0	209	824
12:45 PM	0	56	26	0	0	77	0	0	0	0	0	0	0	0	74	0	233	858
1:00 PM	0	59	30	0	0	81	0	0	0	0	0	0	0	0	76	0	246	887
1:15 PM	0	59	29	0	0	72	0	0	0	0	0	0	0	0	87	0	247	935
1:30 PM	0	51	29	0	0	97	0	0	0	0	0	0	0	0	74	0	251	977
1:45 PM	0	57	22	0	0	72	0	0	0	0	0	0	0	0	75	0	226	970

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	204	116	0	0	388	0	0	0	0	0	0	0	0	296	0	1004
Heavy Trucks	0	4	0		0	28	0		0	0	0		0	0	0		32
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/27/2014 12:14 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

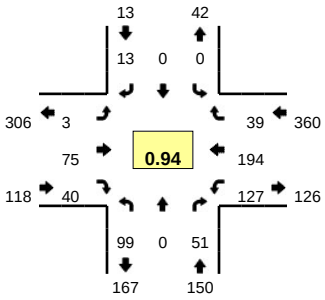
Type of peak hour being reported: User-Defined

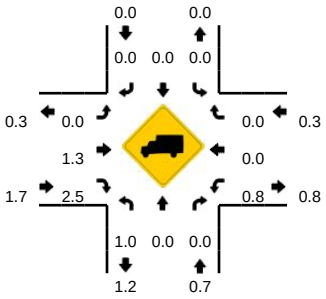
Method for determining peak hour: Total Entering Volume

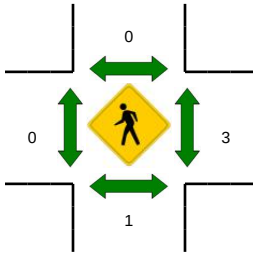
LOCATION: US Bank/Fuel Drive Aisle -- Main Drive Aisle
CITY/STATE: Newberg, OR

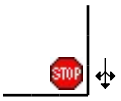
QC JOB #: 13121406
DATE: Sat, Oct 18 2014

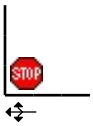
Peak-Hour: 1:00 PM -- 2:00 PM
Peak 15-Min: 1:15 PM -- 1:30 PM

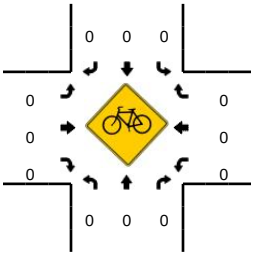


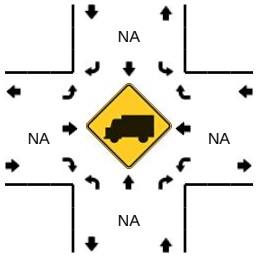


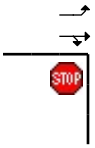


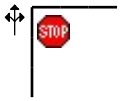


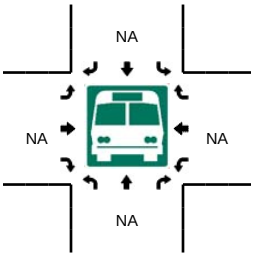












15-Min Count Period Beginning At	US Bank/Fuel Drive Aisle (Northbound)				US Bank/Fuel Drive Aisle (Southbound)				Main Drive Aisle (Eastbound)				Main Drive Aisle (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	29	0	12	0	0	0	2	0	2	14	12	0	38	34	8	0	151	
11:15 AM	31	0	13	0	1	1	0	0	1	10	10	0	37	41	8	0	153	
11:30 AM	35	0	15	0	1	1	3	0	0	15	10	0	33	37	11	0	161	
11:45 AM	24	0	13	0	0	0	1	0	0	16	6	0	35	54	9	0	158	623
12:00 PM	29	0	17	0	0	0	2	0	3	12	8	0	37	39	3	0	150	622
12:15 PM	25	0	18	0	0	1	0	0	1	13	12	0	23	35	10	0	138	607
12:30 PM	20	0	14	0	1	0	2	0	0	18	6	0	38	43	8	0	150	596
12:45 PM	27	0	15	0	1	0	1	0	1	24	8	0	28	40	7	0	152	590
1:00 PM	31	0	12	0	0	0	1	0	1	19	11	0	36	45	11	0	167	607
1:15 PM	30	0	10	0	0	0	2	0	0	19	12	0	36	52	10	0	171	640
1:30 PM	19	0	18	0	0	0	6	0	2	16	12	0	25	46	9	0	153	643
1:45 PM	19	0	11	0	0	0	4	0	0	21	5	0	30	51	9	0	150	641

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	120	0	40	0	0	0	8	0	0	76	48	0	144	208	40	0	684
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Pedestrians		0				0				0				4			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/27/2014 12:14 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

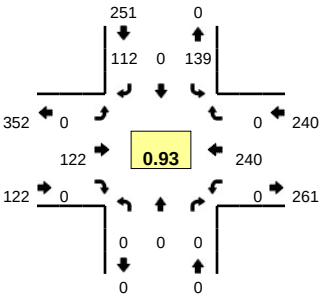
Type of peak hour being reported: User-Defined

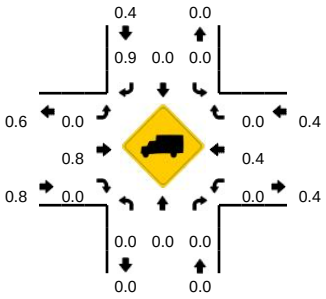
Method for determining peak hour: Total Entering Volume

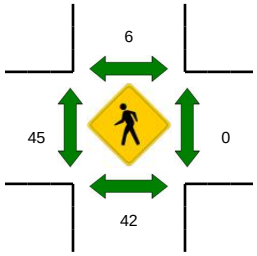
LOCATION: West RI Acc -- Main Drive Aisle
CITY/STATE: Newberg, OR

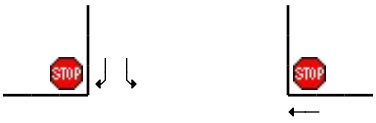
QC JOB #: 13121404
DATE: Sat, Oct 18 2014

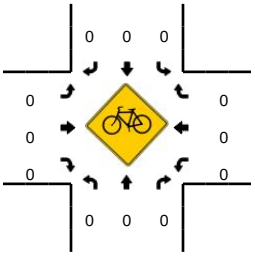
Peak-Hour: 1:00 PM -- 2:00 PM
Peak 15-Min: 1:00 PM -- 1:15 PM

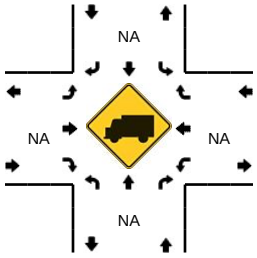


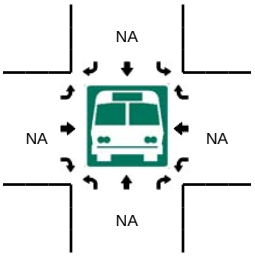












15-Min Count Period Beginning At	West RI Acc (Northbound)				West RI Acc (Southbound)				Main Drive Aisle (Eastbound)				Main Drive Aisle (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	0	0	0	37	0	29	0	0	23	0	0	0	59	0	0	148	
11:15 AM	0	0	0	0	41	0	29	0	0	28	0	0	0	51	0	0	149	
11:30 AM	0	0	0	0	39	0	35	0	0	33	0	0	0	49	0	0	156	
11:45 AM	0	0	0	0	34	0	31	0	0	27	0	0	0	64	0	0	156	609
12:00 PM	0	0	0	0	45	0	22	0	0	33	0	0	0	59	0	0	159	620
12:15 PM	0	0	0	0	45	0	27	0	0	29	0	0	0	42	0	0	143	614
12:30 PM	0	0	0	0	40	0	27	0	0	34	0	0	0	62	0	0	163	621
12:45 PM	0	0	0	0	29	0	31	0	0	37	0	0	0	51	0	0	148	613
1:00 PM	0	0	0	0	45	0	27	0	0	32	0	0	0	61	0	0	165	619
1:15 PM	0	0	0	0	37	0	29	0	0	28	0	0	0	66	0	0	160	636
1:30 PM	0	0	0	0	29	0	32	0	0	34	0	0	0	41	0	0	136	609
1:45 PM	0	0	0	0	28	0	24	0	0	28	0	0	0	72	0	0	152	613

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	180	0	108	0	0	128	0	0	0	244	0	0	660
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Pedestrians		40				0				52				0			92
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/27/2014 12:14 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

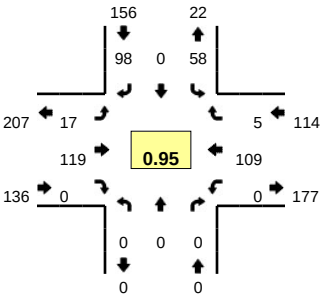
Type of peak hour being reported: User-Defined

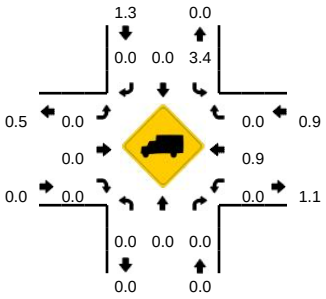
Method for determining peak hour: Total Entering Volume

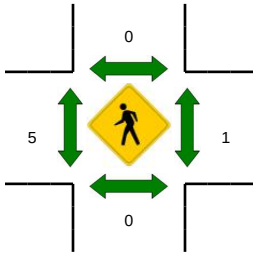
LOCATION: East RIRO Acc -- Main Drive Aisle
CITY/STATE: Newberg, OR

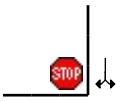
QC JOB #: 13121402
DATE: Sat, Oct 18 2014

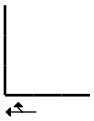
Peak-Hour: 1:00 PM -- 2:00 PM
Peak 15-Min: 1:30 PM -- 1:45 PM

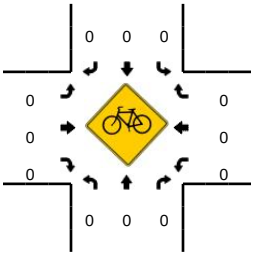


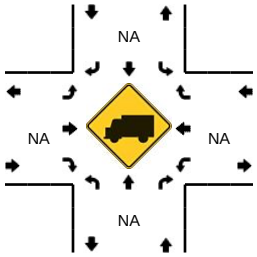


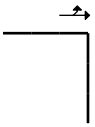


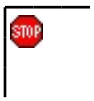


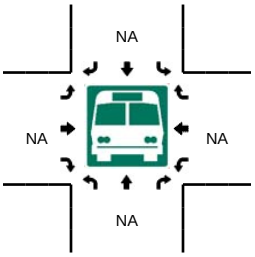












15-Min Count Period Beginning At	East RIRO Acc (Northbound)				East RIRO Acc (Southbound)				Main Drive Aisle (Eastbound)				Main Drive Aisle (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	0	0	0	17	0	36	0	4	20	0	0	0	29	0	0	106	
11:15 AM	0	0	0	0	14	0	27	0	2	35	0	0	0	23	2	0	103	
11:30 AM	0	0	0	0	11	0	24	0	5	33	0	0	0	26	0	0	99	
11:45 AM	0	0	0	0	10	0	17	0	6	23	0	0	0	29	1	0	86	394
12:00 PM	0	0	0	0	23	0	29	0	1	37	0	0	0	29	2	0	121	409
12:15 PM	0	0	0	0	13	0	19	0	5	29	0	0	0	18	2	0	86	392
12:30 PM	0	0	0	0	11	0	15	0	5	24	0	0	0	38	1	0	94	387
12:45 PM	0	0	0	0	11	0	24	0	5	36	0	0	0	25	2	0	103	404
1:00 PM	0	0	0	0	11	0	20	0	4	32	0	0	0	26	0	0	93	376
1:15 PM	0	0	0	0	18	0	28	0	2	22	0	0	0	33	0	0	103	393
1:30 PM	0	0	0	0	17	0	23	0	7	34	0	0	0	22	4	0	107	406
1:45 PM	0	0	0	0	12	0	27	0	4	31	0	0	0	28	1	0	103	406

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	68	0	92	0	28	136	0	0	0	88	16	0	428
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/27/2014 12:14 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

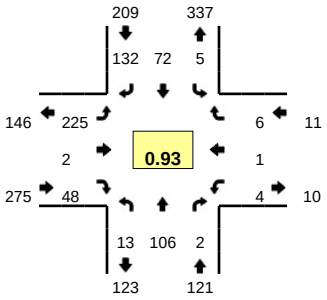
Type of peak hour being reported: User-Defined

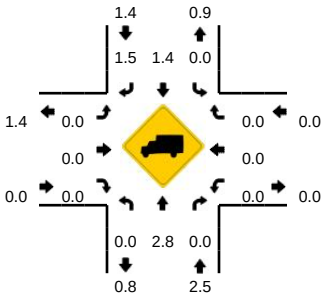
Method for determining peak hour: Total Entering Volume

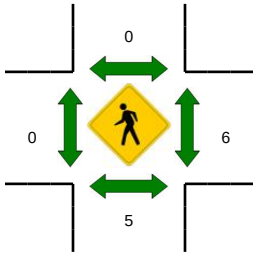
LOCATION: Brutscher St -- Fred Meyer North Acc/Main Drive Aisle
CITY/STATE: Newberg, OR

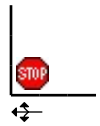
QC JOB #: 13121416
DATE: Sat, Oct 18 2014

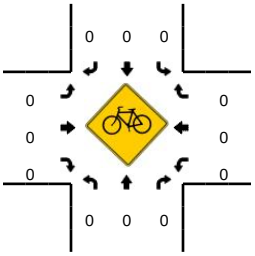
Peak-Hour: 1:00 PM -- 2:00 PM
Peak 15-Min: 1:45 PM -- 2:00 PM

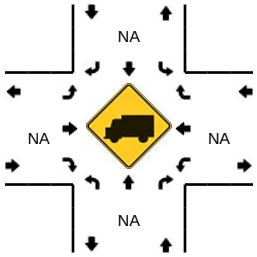


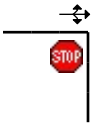


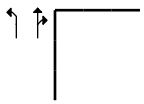


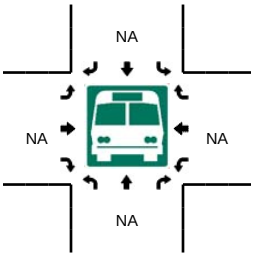












15-Min Count Period Beginning At	Brutscher St (Northbound)				Brutscher St (Southbound)				Fred Meyer North Acc/Main Drive Aisle (Eastbound)				Fred Meyer North Acc/Main Drive Aisle (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	4	23	1	0	1	10	31	0	38	0	7	0	0	0	1	0	116	
11:15 AM	1	18	0	0	3	16	27	0	50	1	16	0	0	2	2	0	136	
11:30 AM	2	21	1	0	0	19	30	0	61	0	8	0	0	0	2	0	144	
11:45 AM	8	18	0	0	0	22	31	0	54	0	6	0	0	0	0	0	139	535
12:00 PM	3	28	0	0	0	16	30	0	66	0	9	0	0	0	0	0	152	571
12:15 PM	0	17	1	0	2	10	32	1	49	2	10	0	0	1	4	0	129	564
12:30 PM	8	29	1	0	3	23	40	0	66	0	9	0	1	1	2	0	183	603
12:45 PM	3	21	2	0	0	17	24	0	56	1	7	0	2	0	0	0	133	597
1:00 PM	4	32	2	0	0	20	28	0	46	2	12	0	2	0	2	0	150	595
1:15 PM	3	24	0	0	1	17	32	0	59	0	6	0	0	0	2	1	145	611
1:30 PM	2	24	0	0	0	13	38	0	62	0	17	0	0	0	0	0	156	584
1:45 PM	4	26	0	0	4	22	34	0	58	0	13	0	1	1	2	0	165	616

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	16	104	0	0	16	88	136	0	232	0	52	0	4	4	8	0	660
Heavy Trucks	0	4	0		0	0	4		0	0	0		0	0	0		8
Pedestrians		12				0				0				12			24
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/27/2014 12:14 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

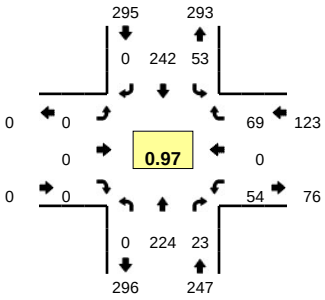
Type of peak hour being reported: User-Defined

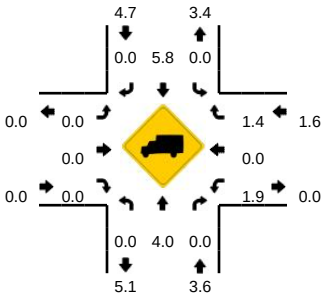
Method for determining peak hour: Total Entering Volume

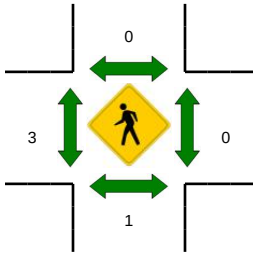
LOCATION: N Springbrook Rd -- Hayes St
CITY/STATE: Newberg, OR

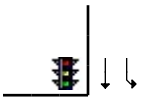
QC JOB #: 13121410
DATE: Sat, Oct 18 2014

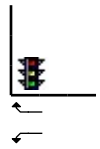
Peak-Hour: 1:00 PM -- 2:00 PM
Peak 15-Min: 1:30 PM -- 1:45 PM

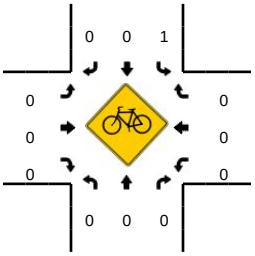


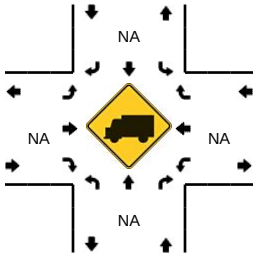


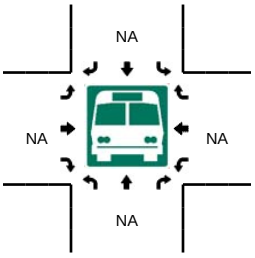












15-Min Count Period Beginning At	N Springbrook Rd (Northbound)				N Springbrook Rd (Southbound)				Hayes St (Eastbound)				Hayes St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	66	6	0	8	42	0	0	0	0	0	0	19	0	15	0	156	
11:15 AM	0	58	5	0	12	47	0	0	0	0	0	0	13	0	22	0	157	
11:30 AM	0	61	7	0	17	38	0	0	0	0	0	0	7	0	14	0	144	
11:45 AM	0	48	2	0	17	38	0	0	0	0	0	0	11	0	13	0	129	586
12:00 PM	0	74	6	0	14	37	0	0	0	0	0	0	10	0	12	0	153	583
12:15 PM	0	63	6	0	11	38	0	0	0	0	0	0	16	0	20	0	154	580
12:30 PM	0	55	5	0	12	54	0	0	0	0	0	0	16	0	18	0	160	596
12:45 PM	0	58	9	0	14	57	0	0	0	0	0	0	21	0	16	0	175	642
1:00 PM	0	59	5	0	13	61	0	0	0	0	0	0	15	0	18	0	171	660
1:15 PM	0	67	6	0	15	53	0	0	0	0	0	0	11	0	15	0	167	673
1:30 PM	0	51	5	0	13	69	0	0	0	0	0	0	15	0	19	0	172	685
1:45 PM	0	47	7	0	12	59	0	0	0	0	0	0	13	0	17	0	155	665

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	204	20	0	52	276	0	0	0	0	0	0	60	0	76	0	688
Heavy Trucks	0	4	0		0	28	0		0	0	0		0	0	0		32
Pedestrians		0				0				8				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/27/2014 12:14 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

APPENDIX D

SEASONAL ADJUSTMENT FACTOR DATA AND CALCULATIONS

ATR 36-004	2008	2009	2011	2012	2013	MAX	MIN	AVERAGE	SAF
Peak Month (Month)	109% (Jul-Aug)	109% (Jul)	109% (Aug)	110% (Aug)	109% (Aug)	110%	109%	109%	**106.5%**
Count Month (Oct)	104%	101%	102%	102%	103%	104%	101%	102%	

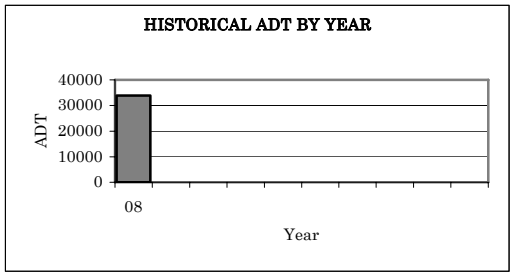
Open ATR Data: http://www.grpmackweb.com/gm/EFL.php?i=127516

On-Site ATR Method: ODOT APM v2 Section 5.4.1

Location: OR8; MP 14.84; TUALATIN VALLEY HIGHWAY NO. 29; 0.28 mile west of N.W. 334th Avenue **Site Name:** Cornelius (34-009)
Installed: September, 2007

HISTORICAL TRAFFIC DATA

Year	Average Daily Traffic	Max Day	Max Hour	10TH Hour	20TH Hour	30TH Hour
		Percent of AADT				
2008	33838	120	10.2	9.7	9.6	9.5



2008 TRAFFIC DATA

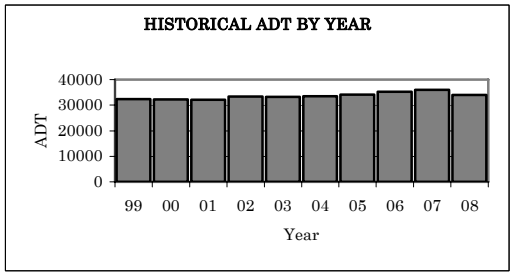
	Average Weekday Traffic	Percent of AADT	Average Daily Traffic	Percent of AADT
January	34002	101	32825	97
February	35714	106	34447	102
March	35431	105	34317	101
April	35945	106	34957	103
May	35030	104	35051	104
June	34922	103	34056	101
July	35789	106	34073	101
August	36278	107	34957	103
September	35707	106	34896	103
October	35286	104	34125	101
November	33669	100	32516	96
December	30918	91	29833	88

Classification Breakdown	Percent of AADT
Motorcyles	0.5
Passenger cars	91.7
Light Trucks	2.8
Buses	0.8
Single unit trucks (2 axles)	2.3
Single unit trucks (3 axles)	0.6
Single unit trucks (4 or more axles)	0.1
Single trailer trucks (4 or less axles)	0.5
Single trailer trucks (5 axles)	0.4
Single trailer trucks (6 or more axles)	0.2
Multi trailer trucks (5 or less axles)	0.1
Multi trailer trucks (6 axles)	0.1
Multi trailer trucks (7 or more axles)	0.0

Location: OR99W; MP 21.81; PACIFIC HIGHWAY WEST NO. 91; 0.01 mile west of Brutscher Street **Site Name:** Newberg (36-004)
Installed: July, 1952

HISTORICAL TRAFFIC DATA

Year	Average Daily Traffic	Max Day	Max Hour	10TH Hour	20TH Hour	30TH Hour
		Percent of AADT				
1999	32417	***	***	***	***	***
2000	32292	***	***	***	***	***
2001	32158	***	***	***	***	***
2002	33361	120	9.4	9.0	8.9	8.8
2003	33269	121	9.3	9.0	8.9	8.8
2004	33463	122	9.3	9.0	8.9	8.8
2005	34128	121	9.3	8.9	8.8	8.8
2006	35302	122	8.9	8.8	8.8	8.7
2007	35985	120	8.9	8.7	8.7	8.6
2008	34049	122	9.2	8.9	8.9	8.8



2008 TRAFFIC DATA

	Average Weekday Traffic	Percent of AADT	Average Daily Traffic	Percent of AADT
January	34106	100	32666	96
February	36157	106	35002	103
March	35830	105	34616	102
April	36110	106	35294	104
May	35543	104	35049	103
June	36460	107	35428	104
July	37246	109	35667	105
August	36975	109	35965	106
September	35606	105	35021	103
October	35376	104	34352	101
November	34178	100	33021	97
December	27809	82	26509	78

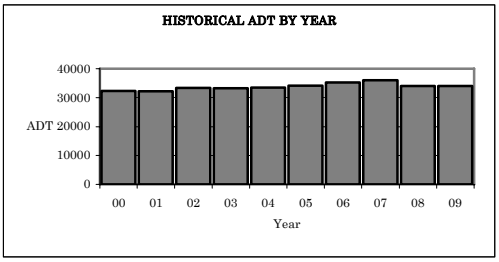
Classification Breakdown	Percent of AADT
Motorcyles	0.1
Passenger cars	40.6
Light Trucks	52.8
Buses	0.2
Single unit trucks (2 axles)	3.1
Single unit trucks (3 axles)	0.7
Single unit trucks (4 or more axles)	0.2
Single trailer trucks (4 or less axles)	0.4
Single trailer trucks (5 axles)	0.9
Single trailer trucks (6 or more axles)	0.5
Multi trailer trucks (5 or less axles)	0.1
Multi trailer trucks (6 axles)	0.1
Multi trailer trucks (7 or more axles)	0.6

Location: OR99W/OR219 MP 21.81; PACIFIC HIGHWAY WEST NO. 91; 0.01 mile west of Brutscher Street

Site Name: Newberg (36-004)
Installed: July, 1952

HISTORICAL TRAFFIC DATA

		Percent of ADT				
Year	Average Daily Traffic	Max Day	Max Hour	10TH Hour	20TH Hour	30TH Hour
2000	32292	***	***	***	***	***
2001	32158	***	***	***	***	***
2002	33361	120	9.4	9.0	8.9	8.8
2003	33269	121	9.3	9.0	8.9	8.8
2004	33463	122	9.3	9.0	8.9	8.8
2005	34128	121	9.3	8.9	8.8	8.8
2006	35302	122	8.9	8.8	8.8	8.7
2007	35985	120	8.9	8.7	8.7	8.6
2008	34049	122	9.2	8.9	8.9	8.8
2009	34060	***	***	***	***	***



2009 TRAFFIC DATA

	Average Weekday Traffic	Percent of ADT	Average Daily Traffic	Percent of ADT
January	33027	97	31897	94
February	34060	100	33391	98
March	34556	101	33651	99
April	35385	104	34778	102
May	34982	103	35003	103
June	36200	106	35300	104
July	37100	109	35900	105
August	36900	108	36100	106
September	35217	103	34899	102
October	34356	101	33468	98
November	33658	99	32675	96
December	33477	98	31661	93

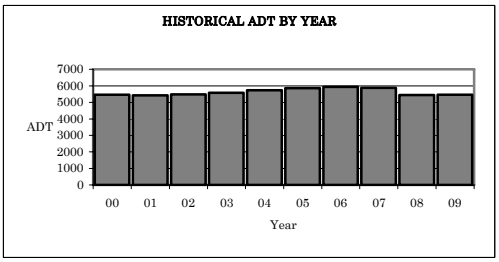
Classification Breakdown	Percent of ADT
Motorcyles	0.12
Passenger cars	40.59
Light Trucks	52.76
Buses	0.18
Single unit trucks (2 axles)	3.07
Single unit trucks (3 axles)	0.71
Single unit trucks (4 or more axles)	0.18
Single trailer trucks (4 or less axles)	0.35
Single trailer trucks (5 axles)	0.90
Single trailer trucks (6 or more axles)	0.47
Multi trailer trucks (5 or less axles)	0.06
Multi trailer trucks (6 axles)	0.05
Multi trailer trucks (7 or more axles)	0.56

Location: OR99W; MP 47.45; PACIFIC HIGHWAY WEST NO. 91; 0.07 mile north of Yamhill-Polk County Line

Site Name: Amity (36-005)
Installed: September, 1956

HISTORICAL TRAFFIC DATA

		Percent of ADT				
Year	Average Daily Traffic	Max Day	Max Hour	10TH Hour	20TH Hour	30TH Hour
2000	5451	140	12.1	11.2	11.0	10.9
2001	5425	131	13.1	11.2	10.7	10.5
2002	5483	137	14.1	12.1	11.3	11.1
2003	5571	140	13.2	11.5	11.0	10.9
2004	5731	132	13.3	11.4	11.1	10.9
2005	5858	***	***	***	***	***
2006	5957	137	13.2	11.5	11.1	10.7
2007	5874	132	13.2	11.3	10.9	10.7
2008	5433	131	12.9	11.8	11.2	11.0
2009	5452	132	14.5	11.8	11.3	11.0



2009 TRAFFIC DATA

	Average Weekday Traffic	Percent of ADT	Average Daily Traffic	Percent of ADT
January	5138	94	4925	90
February	5278	97	5188	95
March	5335	98	5228	96
April	5613	103	5571	102
May	5723	105	5770	106
June	5850	107	5700	105
July	5861	108	5678	104
August	5937	109	5743	105
September	5796	106	5891	108
October	5717	105	5628	103
November	5566	102	5376	99
December	4987	91	4725	87

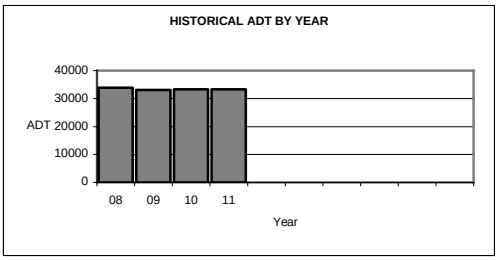
Classification Breakdown	Percent of ADT
Motorcyles	1.04
Passenger cars	58.30
Light Trucks	29.49
Buses	0.28
Single unit trucks (2 axles)	2.56
Single unit trucks (3 axles)	2.18
Single unit trucks (4 or more axles)	0.02
Single trailer trucks (4 or less axles)	0.68
Single trailer trucks (5 axles)	4.78
Single trailer trucks (6 or more axles)	0.26
Multi trailer trucks (5 or less axles)	0.00
Multi trailer trucks (6 axles)	0.00
Multi trailer trucks (7 or more axles)	0.41

Location: OR8; MP 14.84; TUALATIN VALLEY HIGHWAY NO. 29; 0.28 mile west of N.W. 334th Avenue

Site Name: Cornelius (34-009)
Installed: September, 2007

HISTORICAL TRAFFIC DATA

		Percent of ADT				
Year	ADT	Max Day	Max Hour	10TH Hour	20TH Hour	30TH Hour
2008	33838	120	10.2	9.7	9.6	9.5
2009	33042	120	9.8	9.5	9.4	9.3
2010	33237	124	10.2	9.7	9.5	9.4
2011	33248	118	9.9	9.7	9.5	9.4



2011 TRAFFIC DATA

	Average Weekday Traffic	Percent of ADT	Average Daily Traffic	Percent of ADT
January	32916	99	31555	95
February	33372	100	32576	98
March	33803	102	32713	98
April	34568	104	33805	102
May	34036	102	33532	101
June	34972	105	34224	103
July	34129	103	33569	101
August	35092	106	34036	102
September	34594	104	33683	101
October	34558	104	33592	101
November	33959	102	32726	98
December	34041	102	32967	99

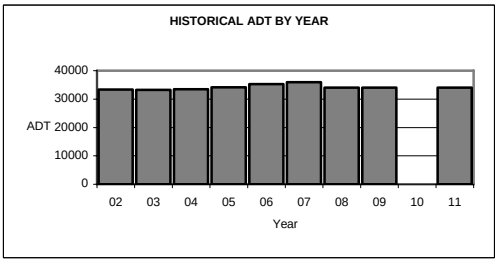
Classification Breakdown	Percent of ADT
Motorcyles	0.08
Passenger cars	73.27
Light Trucks	22.61
Buses	1.14
Single unit trucks (2 axles)	1.81
Single unit trucks (3 axles)	0.33
Single unit trucks (4 or more axles)	0.04
Single trailer trucks (4 or less axles)	0.21
Single trailer trucks (5 axles)	0.44
Single trailer trucks (6 or more axles)	0.03
Multi trailer trucks (5 or less axles)	0.00
Multi trailer trucks (6 axles)	0.00
Multi trailer trucks (7 or more axles)	0.04

Location: OR99W/OR219; MP 21.81; PACIFIC HIGHWAY WEST NO. 91; 0.01 mile west of Brutscher Street

Site Name: Newberg (36-004)
Installed: December, 1969

HISTORICAL TRAFFIC DATA

		Percent of ADT				
Year	ADT	Max Day	Max Hour	10TH Hour	20TH Hour	30TH Hour
2002	33361	120	9.4	9.0	8.9	8.8
2003	33269	121	9.3	9.0	8.9	8.8
2004	33463	122	9.3	9.0	8.9	8.8
2005	34128	121	9.3	8.9	8.8	8.8
2006	35302	122	8.9	8.8	8.8	8.7
2007	35985	120	8.9	8.7	8.7	8.6
2008	34049	122	9.2	8.9	8.9	8.8
2009	34060	***	***	***	***	***
2010	***	***	***	***	***	***
2011	34083	120	9.6	9.0	8.9	8.8



2011 TRAFFIC DATA

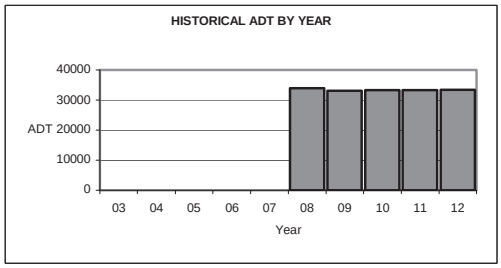
	Average Weekday Traffic	Percent of ADT	Average Daily Traffic	Percent of ADT
January	32847	96	31532	93
February	34044	100	33262	98
March	34267	101	33055	97
April	34939	103	34388	101
May	34640	102	34289	101
June	35834	105	35249	103
July	36605	107	36289	106
August	37129	109	36371	107
September	35630	105	35253	103
October	34830	102	34056	100
November	33623	99	32733	96
December	33840	99	32518	95

Classification Breakdown	Percent of ADT
Motorcyles	0.67
Passenger cars	74.57
Light Trucks	19.34
Buses	0.38
Single unit trucks (2 axles)	2.40
Single unit trucks (3 axles)	0.35
Single unit trucks (4 or more axles)	0.04
Single trailer trucks (4 or less axles)	0.35
Single trailer trucks (5 axles)	1.50
Single trailer trucks (6 or more axles)	0.33
Multi trailer trucks (5 or less axles)	0.01
Multi trailer trucks (6 axles)	0.00
Multi trailer trucks (7 or more axles)	0.06

Location: OR8; MP 14.84; TUALATIN VALLEY HIGHWAY NO. 29; 0.28 mile west of N.W. 334th Avenue **Site Name:** Cornelius (34-009)
Installed: September, 2007

HISTORICAL TRAFFIC DATA

			Percent of ADT			
Year	ADT	Max Day	Max Hour	10TH Hour	20TH Hour	30TH Hour
2003	***	***	***	***	***	***
2004	***	***	***	***	***	***
2005	***	***	***	***	***	***
2006	***	***	***	***	***	***
2007	***	***	***	***	***	***
2008	33838	120	10.2	9.7	9.6	9.5
2009	33042	120	9.8	9.5	9.4	9.3
2010	33237	124	10.2	9.7	9.5	9.4
2011	33248	118	9.9	9.7	9.5	9.4
2012	33333	117	9.8	9.5	9.4	9.4



2012 TRAFFIC DATA

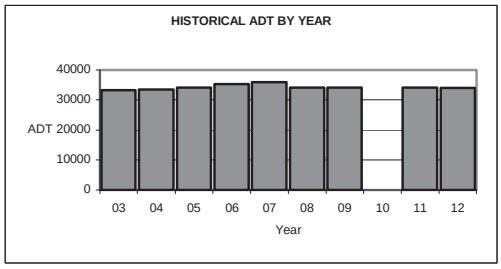
	Average Weekday Traffic	Percent of ADT	Average Daily Traffic	Percent of ADT
January	32848	99	31795	95
February	34140	102	33156	99
March	34127	102	33367	100
April	35472	106	34789	104
May	34795	104	34405	103
June	35139	105	34360	103
July	34614	104	33916	102
August	34361	103	33371	100
September	34262	103	33304	100
October	33890	102	32785	98
November	33297	100	32074	96
December	33313	100	32678	98

Classification Breakdown	Percent of ADT
Motorcyles	0.14
Passenger cars	79.64
Light Trucks	16.69
Buses	1.10
Single unit trucks (2 axles)	1.27
Single unit trucks (3 axles)	0.40
Single unit trucks (4 or more axles)	0.04
Single trailer trucks (4 or less axles)	0.27
Single trailer trucks (5 axles)	0.35
Single trailer trucks (6 or more axles)	0.07
Multi trailer trucks (5 or less axles)	0.00
Multi trailer trucks (6 axles)	0.00
Multi trailer trucks (7 or more axles)	0.03

Location: OR99W/OR219 MP 21.81; PACIFIC HIGHWAY WEST NO. 91; 0.01 mile west of Brutscher Street **Site Name:** Newberg (36-004)
Installed: December, 1969

HISTORICAL TRAFFIC DATA

			Percent of ADT			
Year	ADT	Max Day	Max Hour	10TH Hour	20TH Hour	30TH Hour
2003	33269	121	9.3	9.0	8.9	8.8
2004	33463	122	9.3	9.0	8.9	8.8
2005	34128	121	9.3	8.9	8.8	8.8
2006	35302	122	8.9	8.8	8.8	8.7
2007	35985	120	8.9	8.7	8.7	8.6
2008	34049	122	9.2	8.9	8.9	8.8
2009	34060	***	***	***	***	***
2010	***	***	***	***	***	***
2011	34083	120	9.6	9.0	8.9	8.8
2012	33969	122	9.0	8.8	8.7	8.7



2012 TRAFFIC DATA

	Average Weekday Traffic	Percent of ADT	Average Daily Traffic	Percent of ADT
January	31633	93	30482	90
February	34000	100	33300	98
March	33700	99	33000	97
April	35061	103	34568	102
May	34429	101	34533	102
June	35772	105	35146	103
July	36560	108	35996	106
August	37430	110	36833	108
September	35510	105	35244	104
October	34589	102	33793	99
November	33753	99	32689	96
December	32850	97	32047	94

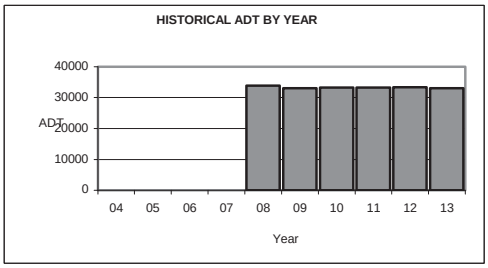
Classification Breakdown	Percent of ADT
Motorcyles	0.67
Passenger cars	74.57
Light Trucks	19.34
Buses	0.38
Single unit trucks (2 axles)	2.40
Single unit trucks (3 axles)	0.35
Single unit trucks (4 or more axles)	0.04
Single trailer trucks (4 or less axles)	0.35
Single trailer trucks (5 axles)	1.50
Single trailer trucks (6 or more axles)	0.33
Multi trailer trucks (5 or less axles)	0.01
Multi trailer trucks (6 axles)	0.00
Multi trailer trucks (7 or more axles)	0.06

Location: OR8; MP 14.84; TUALATIN VALLEY HIGHWAY NO. 29; 0.28 mile west of N.W. 334th Avenue

Site Name: Cornelius (34-009)
Installed: September, 2007

HISTORICAL TRAFFIC DATA

		Percent of ADT				
Year	ADT	Max Day	Max Hour	10TH Hour	20TH Hour	30TH Hour
2004	***	***	***	***	***	***
2005	***	***	***	***	***	***
2006	***	***	***	***	***	***
2007	***	***	***	***	***	***
2008	33838	120	10.2	9.7	9.6	9.5
2009	33042	120	9.8	9.5	9.4	9.3
2010	33237	124	10.2	9.7	9.5	9.4
2011	33248	118	9.9	9.7	9.5	9.4
2012	33333	117	9.8	9.5	9.4	9.4
2013	33000	120	9.9	9.5	9.4	9.2



2013 TRAFFIC DATA

	Average Weekday Traffic	Percent of ADT	Average Daily Traffic	Percent of ADT
January	31830	96	30974	94
February	33718	102	32682	99
March	34232	104	33354	101
April	35075	106	33902	103
May	34549	105	34097	103
June	35192	107	34411	104
July	34613	105	33666	102
August	34126	103	33233	101
September	33630	102	32776	99
October	33609	102	32931	100
November	32775	99	32008	97
December	32890	100	31963	97

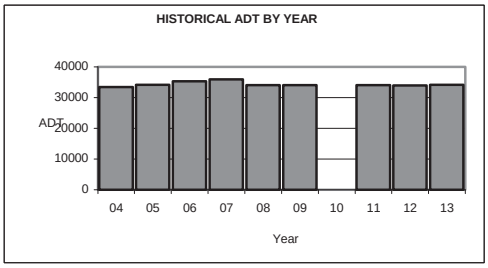
Classification Breakdown	Percent of ADT
Motorcyles	0.14
Passenger cars	79.64
Light Trucks	16.69
Buses	1.10
Single unit trucks (2 axles)	1.27
Single unit trucks (3 axles)	0.40
Single unit trucks (4 or more axles)	0.04
Single trailer trucks (4 or less axles)	0.27
Single trailer trucks (5 axles)	0.35
Single trailer trucks (6 or more axles)	0.07
Multi trailer trucks (5 or less axles)	0.00
Multi trailer trucks (6 axles)	0.00
Multi trailer trucks (7 or more axles)	0.03

Location: OR99W/OR219 MP 21.81; PACIFIC HIGHWAY WEST NO. 91; 0.01 mile west of Brutscher Street

Site Name: Newberg (36-004)
Installed: December, 1969

HISTORICAL TRAFFIC DATA

		Percent of ADT				
Year	ADT	Max Day	Max Hour	10TH Hour	20TH Hour	30TH Hour
2004	33463	122	9.3	9.0	8.9	8.8
2005	34128	121	9.3	8.9	8.8	8.8
2006	35302	122	8.9	8.8	8.8	8.7
2007	35985	120	8.9	8.7	8.7	8.6
2008	34049	122	9.2	8.9	8.9	8.8
2009	34060	***	***	***	***	***
2010	***	***	***	***	***	***
2011	34083	120	9.6	9.0	8.9	8.8
2012	33969	122	9.0	8.8	8.7	8.7
2013	34174	120	9.0	8.8	8.7	8.6



2013 TRAFFIC DATA

	Average Weekday Traffic	Percent of ADT	Average Daily Traffic	Percent of ADT
January	32139	94	30666	90
February	34204	100	32996	97
March	34565	101	33957	99
April	35354	103	34467	101
May	34526	101	34535	101
June	35804	105	35433	104
July	36659	107	36125	106
August	37082	109	36294	106
September	35676	104	34868	102
October	35261	103	34752	102
November	34401	101	33268	97
December	33992	99	32728	96

Classification Breakdown	Percent of ADT
Motorcyles	0.13
Passenger cars	46.38
Light Trucks	48.71
Buses	0.29
Single unit trucks (2 axles)	2.35
Single unit trucks (3 axles)	0.39
Single unit trucks (4 or more axles)	0.09
Single trailer trucks (4 or less axles)	0.15
Single trailer trucks (5 axles)	1.07
Single trailer trucks (6 or more axles)	0.23
Multi trailer trucks (5 or less axles)	0.16
Multi trailer trucks (6 axles)	0.03
Multi trailer trucks (7 or more axles)	0.02

APPENDIX E

IN-PROCESS PROJECTS

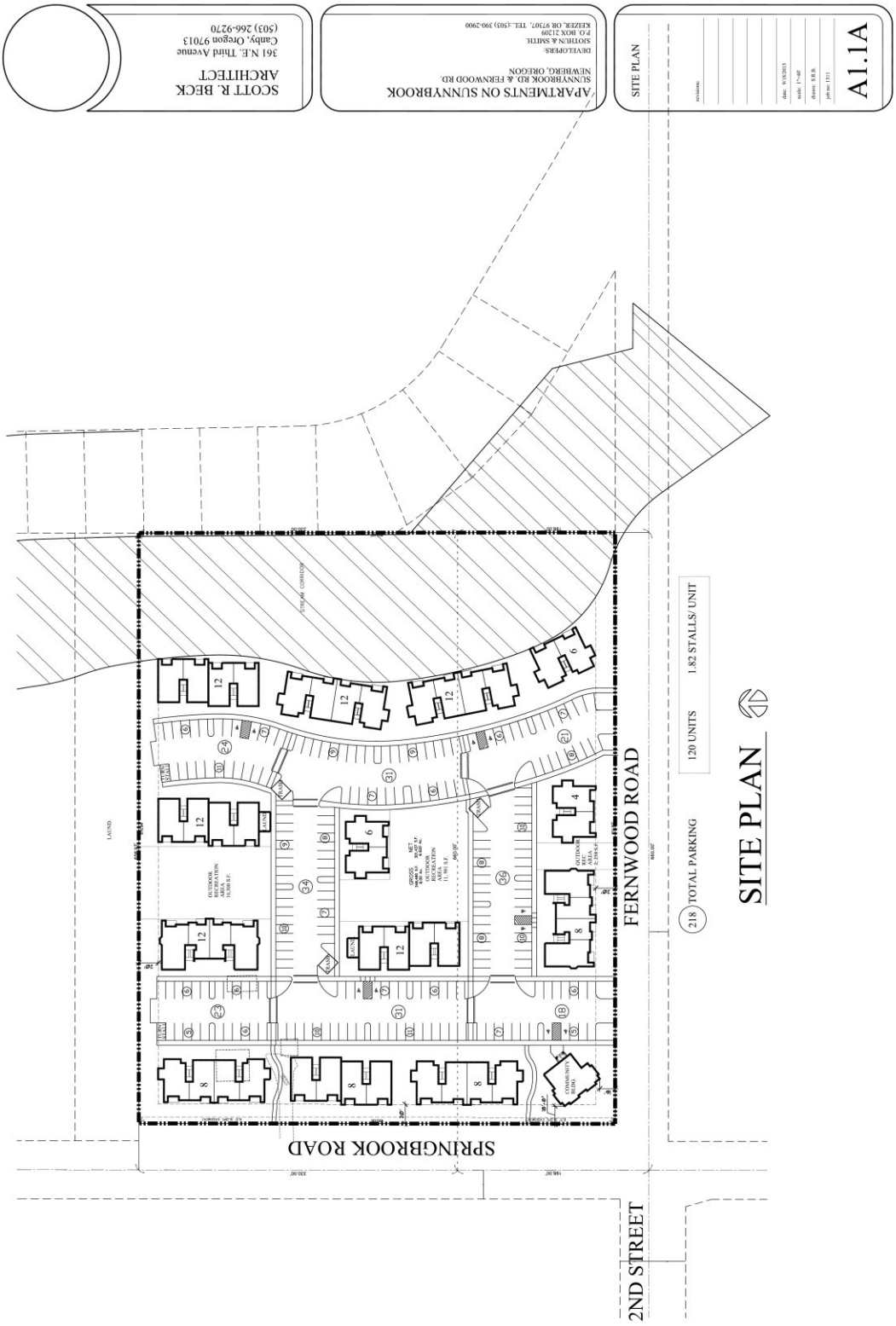


Figure 1 – Site Map

2008 and 2012.

SCENARIO 2 – PROPOSED DEVELOPMENT

Under this scenario, the entire site would be developed as R3 Multifamily Apartments which would be comprised of 120 units. For the purposes of this report the total development of the site was considered. This was done to show as near as possible the total impact of the development on the surrounding street system.

TRIP GENERATION

Estimates of total daily peak hour driveway volumes for the existing uses were developed from empirical observations at many similar-sized facilities located throughout the United States. These empirical observations are summarized in a standard reference manual published by the Institute of Transportation Engineers (ITE) *Trip Generation, 9th Edition* and the procedures and data provided in the ITE *Trip Generation Handbook.*

Estimating the number of vehicle trip ends that will be generated by the proposed development is of prime importance in order to accurately assess the impacts of development on the road network.

The figures shown in Table 4 below, represent the expected number of vehicle trip ends to be generated by the proposed development on a daily p.m. peak hour basis based on the mathematical regression equations found in Section 220 of the Trip Generation Manual (9th Edition). This development is expected to generate approximately 851trips per day

Table 4 - Trip Generation for Apartments on Springbrook

Land Use	**Size**	**Peak Hour**	
		Entry	**Exit**
220 - Apartments	120 Dwelling Units	55	29

For the purposes of this analysis, it is assumed that none of the home related person trips will be made by mass transit. This assumption ignores the recent statewide projections that 4-6 percent of all home based person trips for purposes unrelated to work will be made by transit. Therefore, this assumption tends to cause the analysis to reflect a worst-case condition, and over estimate the traffic impacts associated with this development.

TRIP DISTRIBUTION

The trip distribution for this report was determined from the traffic volumes shown in the field observation and review of the *Phase 1 Technical Report Addendum, Kittelson & Associates, Inc., September 2011*. See Figure 6.

Figure 6 - Trip Distribution

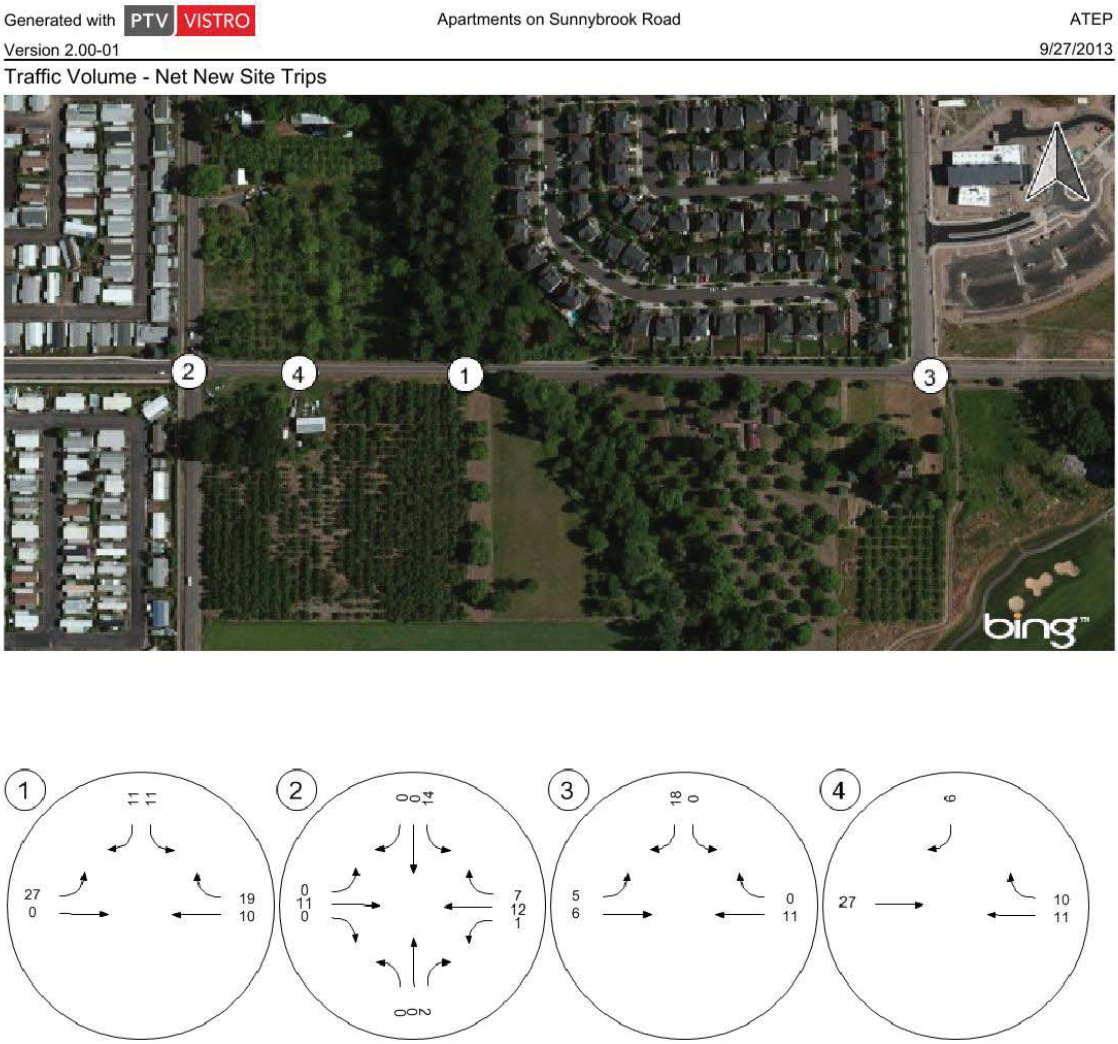


Figure 7 – Site Generated Peak Volumes

APPENDIX F

CRASH DATA AND SPIS LISTING

Oregon Department of Transportation

Region 2

2013 - On-State, Top 10% SPIS Groups - By Hwy, MP

Rte	Rdwy	BMP	EMP	Length	ADT	Crash	Fatal	A	B	C	PDO	City	County	Connection	Percent	SPIS
072 Salem																
OR-99EB	1	1.45	1.56	0.11	21,111	15	0	1	1	3	10	Salem	Marion	LEG (TO VERDA LN. NE)	90	44.94
OR-99EB	1	1.49	1.64	0.15	22,900	17	0	1	1	5	10	Salem	Marion	LEG (TO VERDA LN. NE)	90	49.24
OR-99EB	1	3.07	3.25	0.18	19,866	29	0	0	8	8	13	Salem	Marion	LEG (TO BRDWY ST. NE)	95	56.99
OR-99EB	1	4.28	4.37	0.09	17,077	22	0	0	5	6	11	Salem	Marion	GAINES ST. NE	90	45.14
OR-99EB	1	4.64	4.80	0.16	26,933	20	1	0	1	10	8	Salem	Marion		95	59.09
OR-22	1	5.35	5.53	0.18	14,511	53	0	0	2	18	33	Salem	Marion	COMMERCIAL ST.	95	73.13
OR-22	2	5.38	5.48	0.10	18,400	32	0	0	2	13	17	Salem	Marion	LIBERTY ST.	95	56.82
OR-22	1	6.68	6.87	0.19	35,100	41	0	1	3	13	24	Salem	Marion	17TH ST. SE	95	71.54
OR-22	1	7.14	7.24	0.10	33,000	18	0	1	2	6	9	Salem	Marion	22ND ST. SE	90	51.03
OR-22	1	7.43	7.50	0.07	33,000	22	0	0	2	12	8	Salem	Marion	24TH ST. SE (2ND LT.)	90	46.01
OR-22	1	7.44	7.62	0.18	47,400	57	0	0	3	23	31	Salem	Marion	25TH ST. SE	95	73.96
OR-22	1	7.83	8.02	0.19	47,400	52	1	0	5	17	29	Salem	Marion	LEG (FROM AIRPORT RD.)	95	76.11
OR-22	1	8.17	8.38	0.21	47,900	76	1	0	6	29	40	Salem	Marion	HAWTHORNE AVE.	95	80.40
081 Pacific Highway East																
OR-99E	1	31.80	31.96	0.16	19,200	6	1	1	0	3	1	Woodburn	Marion	MT. JEFFERSON AVE.	90	51.21
OR-99E	1	32.09	32.27	0.18	19,200	22	0	1	0	13	8	Woodburn	Marion	HARDCASTLE AVE.	95	58.85
OR-99E	1	32.78	32.94	0.16	18,500	32	0	0	5	9	18	Woodburn	Marion	TOMLIN AVE.	90	51.29
OR-99E	1	32.91	33.07	0.16	13,600	21	0	1	0	10	10	Woodburn	Marion	SILVERTON AVE.	95	60.24
OR-99E	1	44.36	44.47	0.11	10,099	13	0	1	1	4	7		Marion	NE HAZEL GREEN RD.	90	48.14
OR-99E	1	44.40	44.50	0.10	12,499	12	0	1	1	3	7		Marion	NE HAZEL GREEN RD.	90	45.23
091 Pacific Highway West																
OR-99W	1	21.71	21.87	0.16	34,100	19	0	1	2	8	8	Newberg	Yamhill	BRUTSCHER ST.	90	48.88
OR-99W	1	21.95	22.14	0.19	38,500	56	0	0	2	17	37	Newberg	Yamhill	LEG (TO N SPRINGBROOK RD.)	95	66.79

**Crash data shown in the SPIS group report results from the summation of crash data between the begin and end mile points of the Group.
**ADT, SPIS Score, and Percent data shown in the SPIS group report are the highest values from all sites within the Group.

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2013														
FIXED / OTHER OBJECT	0	1	0	1	0	1	0	1	0	1	0	0	0	1
REAR-END	0	16	3	19	0	21	0	13	4	16	3	14	0	0
SIDESWIPE - OVERTAKING	0	0	2	2	0	0	0	2	0	2	0	0	0	0
TURNING MOVEMENTS	0	1	4	5	0	2	0	4	1	4	1	3	0	0
YEAR 2013 TOTAL	**0**	**18**	**9**	**27**	**0**	**24**	**0**	**20**	**5**	**23**	**4**	**17**	**0**	**1**
YEAR: 2012														
ANGLE	0	2	1	3	0	3	0	1	2	1	2	3	0	0
PEDESTRIAN	1	1	0	2	1	1	0	2	0	2	0	1	0	1
REAR-END	0	14	10	24	0	22	1	16	8	19	5	16	0	0
SIDESWIPE - OVERTAKING	0	1	0	1	0	2	0	0	1	1	0	0	0	0
TURNING MOVEMENTS	0	0	6	6	0	0	0	3	3	3	3	5	0	0
YEAR 2012 TOTAL	**1**	**18**	**17**	**36**	**1**	**28**	**1**	**22**	**14**	**26**	**10**	**25**	**0**	**1**
YEAR: 2011														
REAR-END	0	7	13	20	0	9	0	12	5	15	5	15	0	0
SIDESWIPE - OVERTAKING	0	0	1	1	0	0	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	0	2	2	0	0	0	1	1	1	1	1	0	0
YEAR 2011 TOTAL	**0**	**7**	**16**	**23**	**0**	**9**	**0**	**14**	**6**	**17**	**6**	**17**	**0**	**0**
YEAR: 2010														
ANGLE	0	1	0	1	0	1	0	1	0	1	0	0	0	1
MISCELLANEOUS	0	1	0	1	0	1	0	1	0	1	0	0	0	1
PEDESTRIAN	0	1	0	1	0	1	0	1	0	1	0	1	0	0
REAR-END	0	6	11	17	0	9	0	10	7	12	5	8	0	0

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
TURNING MOVEMENTS	0	1	3	4	0	1	0	4	0	3	1	2	0	0
YEAR 2010 TOTAL	**0**	**10**	**14**	**24**	**0**	**13**	**0**	**17**	**7**	**18**	**6**	**11**	**0**	**2**
YEAR: 2009														
ANGLE	0	2	0	2	0	2	0	2	0	1	1	2	0	0
REAR-END	0	9	9	18	0	14	0	13	4	16	2	14	2	0
TURNING MOVEMENTS	0	2	1	3	0	3	0	3	0	2	1	2	0	0
YEAR 2009 TOTAL	**0**	**13**	**10**	**23**	**0**	**19**	**0**	**18**	**4**	**19**	**4**	**18**	**2**	**0**
FINAL TOTAL	**1**	**66**	**66**	**133**	**1**	**93**	**1**	**91**	**36**	**103**	**30**	**88**	**2**	**4**

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	SPEED	ALC	DRUGS	SCHL	WORK	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# FC / COMPNT / MLG TYP / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
00953	N	N	N			11/03/2010	YAMHILL	1 14		ALLEY		N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT										02
NO RPT						WE	NEWBERG	MN 0	PACIFIC HY 99W	NE	(NONE)	UNKNOWN	N	DRY	TURN		PRVTE	SW-NE									000	00
						8A	NEWBERG UA	21.72	BRUTSCHER ST	06	(04)		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	62	F	OR-Y OR<25		000	000	00
																02	NONE 0	TURN-L										
																	PRVTE	SE-SW									000	00
																	PSNGR CAR		01	DRVR	NONE	55	F	OR-Y OR<25		028	000	02
00981	N	N	N	N	N	11/04/2013	YAMHILL	1 14		ALLEY		N	N	RAIN	ANGL-OTH	01	NONE 0	STRGHT										02
CITY						MO	NEWBERG	MN 0	PACIFIC HY 99W	NE	(NONE)	NONE	N	WET	TURN		PRVTE	SW-NE									000	00
						3P	NEWBERG UA	21.72	BRUTSCHER ST	06	(04)		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	23	M	OR-Y OR<25		000	000	00
																02	NONE 0	TURN-R										
																	PRVTE	SE-NE									019	00
																	PSNGR CAR		01	DRVR	NONE	85	M	OR-Y OR<25		028	000	02
00624	N	N	N			07/21/2012	YAMHILL	1 14		STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NONE						SA	NEWBERG	MN 0	BRUTSCHER ST	E	(NONE)	UNKNOWN	N	DRY	REAR		PRVTE	W -E									000	00
						3P	NEWBERG UA	21.72	PACIFIC HY 99W	07	(04)		Y	DAY	INJ		PSNGR CAR		01	DRVR	NONE	33	F	OR-Y OR<25		026	000	07
																02	NONE 0	STOP										
																	PRVTE	W -E									011	00
																	PSNGR CAR		01	DRVR	INJC	27	M	OR-Y OR<25		000	000	00
00085	N	N	N			02/04/2013	YAMHILL	1 14		STRGHT		N	N	CLR	S-STRGHT	01	NONE	STRGHT										13
NONE						MO	NEWBERG	MN 0	PACIFIC HY 99W	UN	(NONE)	UNKNOWN	N	DRY	SS-O		PRVTE	W -E									000	00
						4P	NEWBERG UA	21.74	BRUTSCHER ST	05	(04)		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	75	M	OR-Y OR<25		045	000	13
																02	NONE 0	STRGHT										
																	PRVTE	W -E									000	00
																	PSNGR CAR		01	DRVR	NONE	43	M	OR-Y OR<25		000	000	00
00099	N	N	N			02/19/2010	YAMHILL	1 14		STRGHT		N	N	RAIN	S-1STOP	01	NONE 0	STRGHT									013	07
NO RPT						FR	NEWBERG	MN 0	PACIFIC HY 99W	NE	(NONE)	UNKNOWN	N	WET	REAR		PRVTE	NE-SW									000	00
						7P	NEWBERG UA	21.78	BRUTSCHER ST	04	(04)		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	23	F	OR-Y OR<25		026	000	07
																02	NONE 0	STOP										
																	PRVTE	NE-SW									011	013 00
																	PSNGR CAR		01	DRVR	NONE	49	M	OR-Y OR<25		000	000	00
																02	NONE 0	STOP										
																	PRVTE	NE-SW									011	013 00
																	PSNGR CAR		02	PSNG	NO<5	04	M			000	000	00
																03	NONE 0	STOP										
																	PRVTE	NE-SW									011	00
																	PSNGR CAR		01	DRVR	INJC	65	M	OR-Y OR<25		000	000	00
00349	N	N	N	N	N	05/07/2009	YAMHILL	1 14		STRGHT		Y	N	CLR	S-1STOP	01	NONE 0	STRGHT										07

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	S P E D E L C	A G H	U S L	C O K	W R	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# FC / COMPNT / MLG TYP / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC	INJ	A G E	S X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
CITY						TH	NEWBERG	MN 0	PACIFIC HY 99W	NE	(NONE)	UNKNOWN	N	DRY	REAR		PRVTE	NE-SW									000		00
						4P	NEWBERG UA	21.79	BRUTSCHER ST	03	(04)		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	61	F	OR-Y OR<25		043	000		07
																02	NONE 0	STOP											
																	PRVTE	NE-SW									011		00
																	PSNGR CAR		01	DRVR	INJC	47	F	OR-Y OR<25		000	000		00
																02	NONE 0	STOP											
																	PRVTE	NE-SW									011		00
																	PSNGR CAR		02	PSNG	INJC	49	M			000	000		00
00915	N	N	N			10/12/2012	YAMHILL	1 14		STRGHT		N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NONE						FR	NEWBERG	MN 0	PACIFIC HY 99W	NE	(NONE)	UNKNOWN	N	WET	REAR		PRVTE	NE-SW									000		00
						4P	NEWBERG UA	21.79	BRUTSCHER ST	03	(04)		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	50	M	OR-Y OR>25		026	000		07
																02	NONE 0	STOP											
																	PRVTE	NE-SW									011		00
																	PSNGR CAR		01	DRVR	NONE	49	F	UNK N-RES		000	000		00
01007	N	N	N			11/14/2013	YAMHILL	1 14		STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT											27
NO RPT						TH	NEWBERG	MN 0	PACIFIC HY 99W	NE	(NONE)	UNKNOWN	N	UNK	REAR		PRVTE	NE-SW									000		00
						5P	NEWBERG UA	21.79	BRUTSCHER ST	03	(04)		N	DUSK	INJ		PSNGR CAR		01	DRVR	NONE	56	F	OR-Y OR<25		016	038		27
																02	NONE 0	STOP											
																	PRVTE	NE-SW									011		00
																	PSNGR CAR		01	DRVR	INJC	24	M	OR-Y OR>25		000	000		00
00356	N	N	N			05/13/2009	YAMHILL	1 14		STRGHT		Y	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NONE						WE	NEWBERG	MN 0	PACIFIC HY 99W	NE	(DIVMD)	UNKNOWN	N	WET	REAR		PRVTE	NE-SW									000		00
						4P	NEWBERG UA	21.79	BRUTSCHER ST	04	(04)		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	57	F	OR-Y OR<25		014	000		07
																02	NONE 0	STOP											
																	PRVTE	NE-SW									011		00
																	PSNGR CAR		01	DRVR	INJC	27	F	OR-Y OR>25		000	000		00
																02	NONE 0	STOP											
																	PRVTE	NE-SW									011		00
																	PSNGR CAR		02	PSNG	INJC	24	M			000	000		00
00594	N	N	N	N	N	08/07/2009	YAMHILL	1 14		INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT										013	07
CITY						FR	NEWBERG	MN 0	BRUTSCHER ST	UN		TRF SIGNAL	N	DRY	REAR		PRVTE	N -S									000		00
						8A	NEWBERG UA	21.80	PACIFIC HY 99W	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	53	F	OR-Y OR<25		026	000		07
																02	NONE 0	STOP											
																	PRVTE	N -S									011	013	00
																	PSNGR CAR		01	DRVR	NONE	21	F	OR-Y OR<25		000	000		00
																03	NONE 0	STOP											
																	PRVTE	N -S									011		00
																	PSNGR CAR		01	DRVR	INJC	22	F	OR-Y		000	000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	S P E D	A L C	R U G	S C S	W H L	O R K	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# FC / COMPNT / MLG TYP / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
																									OR<25					
00920	N	N	N				11/25/2009	YAMHILL	1 14		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE							WE	NEWBERG	MN 0	BRUTSCHER ST	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000		00
							3P	NEWBERG UA	21.80	PACIFIC HY 99W	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	40	M	OR-Y		026	000		07
																									OR<25					
																	02	NONE 0	STOP											
																		PRVTE	NE-SW									011		00
																		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
																									UNK					
00415	N	N	N				05/19/2012	YAMHILL	1 14		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										013	07
NO RPT							SA	NEWBERG	MN 0	BRUTSCHER ST	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000		00
							10A	NEWBERG UA	21.80	PACIFIC HY 99W	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	31	M	OR-Y		026	000		07
																									OR<25					
																	02	NONE 0	STOP											
																		PRVTE	NE-SW									011	013	00
																		PSNGR CAR		01	DRVR	NONE	36	F	OR-Y		000	000		00
																									OR<25					
																	03	NONE 0	STOP											
																		PRVTE	NE-SW									011		00
																		PSNGR CAR		01	DRVR	INJC	38	M	OR-Y		000	000		00
																									OR<25					
00518	N	N	N				06/22/2012	YAMHILL	1 14		INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											27
NO RPT							FR	NEWBERG	MN 0	BRUTSCHER ST	NE		TRF SIGNAL	N	WET	REAR		PRVTE	NE-SW									000		00
							4P	NEWBERG UA	21.80	PACIFIC HY 99W	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	20	F	OR-Y		026	000		27
																									OR<25					
																	02	NONE 0	STOP											
																		PRVTE	NE-SW									011		00
																		PSNGR CAR		01	DRVR	INJC	42	F	OR-Y		000	000		00
																									OR<25					
00907	N	N	N				10/04/2012	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE							TH	NEWBERG	MN 0	BRUTSCHER ST	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000		00
							5P	NEWBERG UA	21.80	PACIFIC HY 99W	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	26	M	OR-Y		026	000		07
																									OR<25					
																	02	NONE 0	STOP											
																		PRVTE	NE-SW									011		00
																		PSNGR CAR		01	DRVR	NONE	40	M	OR-Y		000	000		00
																									OR<25					
00829	N	N	N				09/23/2013	YAMHILL	1 14		INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NONE							MO	NEWBERG	MN 0	BRUTSCHER ST	NE		TRF SIGNAL	N	WET	REAR		PRVTE	NE-SW									000		00
							2P	NEWBERG UA	21.80	PACIFIC HY 99W	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	40	F	OR-Y		026	000		07
																									OR<25					
																	02	NONE 0	STOP											
																		PRVTE	NE-SW									011		00
																		PSNGR CAR		01	DRVR	INJC	71	M	OR-Y		000	000		00
																									OR<25					
00661	N	N	N				08/18/2011	YAMHILL	1 14		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										013	32
NO RPT							TH	NEWBERG	MN 0	BRUTSCHER ST	E		UNKNOWN	N	DRY	REAR		PRVTE	E -W									000		00
							5P	NEWBERG UA	21.80	PACIFIC HY 99W	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJB	35	F	OR-Y		052,026	000		32
																									OR<25					

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL	WORK	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# FC / COMPNT / MLG TYP / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
																02	NONE 0	STOP											
																	PRVTE	E -W									011	013	00
																	PSNGR CAR		01	DRVR	INJC	43	M	OR-Y		000	000		00
																								OR<25					
																03	NONE 0	STOP											
																	PRVTE	E -W									011		00
																	PSNGR CAR		01	DRVR	NONE	59	M	OR-Y		000	000		00
																								OR<25					
01018		N	N	N		11/09/2012	YAMHILL	1 14		INTER	CROSS	N	N	CLD	ANGL-STP	01	NONE 0	TURN-L										092	32,27
CITY						FR	NEWBERG	MN 0	BRUTSCHER ST	SW		TRF SIGNAL	N	DRY	TURN		PRVTE	SE-SW									000		00
						5P	NEWBERG UA	21.80	PACIFIC HY 99W	05	0		N	DUSK	PDO		PSNGR CAR		01	DRVR	NONE	44	M	OR-Y		052,016	038		32,27
																								OR<25					
																02	NONE 0	STOP											
																	PRVTE	NE-SW									011	092	00
																	PSNGR CAR		01	DRVR	NONE	71	M	OR-Y		000	000		00
																								OR<25					
01136		N	N	N	N	N	12/21/2010	YAMHILL	1 14		INTER	3-LEG	N	N	CLD	PED	01	NONE 0	TURN-L											02
CITY						TU	NEWBERG	MN 0	BRUTSCHER ST	SW		TRF SIGNAL	Y	DRY	PED		PRVTE	SE-SW									000		00
						9A	NEWBERG UA	21.80	PACIFIC HY 99W	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	33	M	OTH-Y		029	000		02
																		N-RES											
																		-											
																		STRGHT	01	PED	INJA	60	F		I XWLK	000	035		00
																		SE NW											
00469		N	N	N	N	N	06/11/2012	YAMHILL	1 14		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											27
CITY						MO	NEWBERG	MN 0	BRUTSCHER ST	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						10A	NEWBERG UA	21.80	PACIFIC HY 99W	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	22	F	OR-Y		026	000		27
																								OR<25					
																02	NONE 0	STOP											
																	PRVTE	SW-NE									011		00
																	PSNGR CAR		01	DRVR	INJB	46	F	OR-Y		000	000		00
																								OR<25					
																02	NONE 0	STOP											
																	PRVTE	SW-NE									011		00
																	PSNGR CAR		02	PSNG	INJB	25	F			000	000		00
00585		N	N	N	N	N	07/09/2013	YAMHILL	1 14		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
CITY						TU	NEWBERG	MN 0	BRUTSCHER ST	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						6A	NEWBERG UA	21.80	PACIFIC HY 99W	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	50	M	OR-Y		026	000		07
																								OR<25					
																02	NONE 0	STOP											
																	PRVTE	SW-NE									011		00
																	PSNGR CAR		01	DRVR	INJC	36	M	OR-Y		000	000		00
																								OR<25					
00800		N	N	N			10/30/2009	YAMHILL	1 14		INTER	CROSS	N	N	CLD	S-1STOP	01	NONE	STRGHT											07,27
NONE							FR	NEWBERG	MN 0	BRUTSCHER ST	W		TRF SIGNAL	N	SNO	REAR		PRVTE	W -E									000		00
							9A	NEWBERG UA	21.80	PACIFIC HY 99W	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	43	M	OR-Y		026	000		07,27
																								OR<25					
																01	NONE	STRGHT											

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	SPEED	ALC	DRUGS	SCHL	WORK	DAY	DATE / TIME	COUNTY / CITY / URBAN AREA	RD# / MLG / MILEPNT	FC / TYP / CONN# / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	TYPE	INJ SVRTY	AGE	SEX	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
																		PRVTE	W -E									000		00
																		PSNGR CAR		02	PSNG	NO<5	03	F			000	000		00
																	02	NONE 0	STOP											
																		PRVTE	W -E									011		00
																		PSNGR CAR		01	DRVR	NONE	00	M	OR-Y OR<25		000	000		00
00045		N	N	N	N		01/14/2011	YAMHILL	1 14		INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT												07
CITY							FR	NEWBERG	MN 0	BRUTSCHER ST	W		TRF SIGNAL	N	WET	REAR		PRVTE	W -E									000		00
							5P	NEWBERG UA	21.80	PACIFIC HY 99W	06	0		N	DARK	INJ		PSNGR CAR		01	DRVR	NONE	23	M	OR-Y OR<25		026	000		07
																	02	NONE 0	STOP											
																		PRVTE	W -E									011		00
																		PSNGR CAR		01	DRVR	INJC	22	F	OR-Y OR<25		000	000		00
01005		N	N	N			11/07/2011	YAMHILL	1 14		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NONE							MO	NEWBERG	MN 0	BRUTSCHER ST	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000		00
							5P	NEWBERG UA	21.80	PACIFIC HY 99W	06	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	42	F	OR-Y OR>25		026	000		07
																	02	NONE 0	STOP											
																		PRVTE	W -E									011		00
																		PSNGR CAR		01	DRVR	INJC	31	M	OR-Y OR>25		000	000		00
00375		N	N	N			05/05/2013	YAMHILL	1 14		INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	U-TURN												08
NO RPT							SU	NEWBERG	MN 0	BRUTSCHER ST	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	S -S									000		00
							12P	NEWBERG UA	21.80	PACIFIC HY 99W	01	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	63	M	OR-Y OR<25		008	000		08
																	02	NONE 0	STRGHT											
																		PRVTE	E -W									000		00
																		PSNGR CAR		01	DRVR	NONE	46	F	OR-Y OR<25		000	000		00
00740		N	N	N			08/23/2013	YAMHILL	1 14		INTER	3-LEG	N	N	CLR	O-1TURN	01	NONE 0	STRGHT											002	04,27
NO RPT							FR	NEWBERG	MN 0	BRUTSCHER ST	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	W -E									000		00
							1P	NEWBERG UA	21.80	PACIFIC HY 99W	01	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	31	F	OR-Y OR<25		020	000	002	04,27
																	01	NONE 0	STRGHT											
																		PRVTE	W -E									000		00
																		PSNGR CAR		02	PSNG	NO<5	01	M			000	000		00
																	02	NONE 0	TURN-L											
																		PRVTE	S -W									000		00
																		PSNGR CAR		01	DRVR	NONE	23	F	OR-Y OR<25		000	000		00
00063		N	N	N	N	N	01/18/2009	YAMHILL	1 14		INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT												04
CITY							SU	NEWBERG	MN 0	BRUTSCHER ST	CN		TRF SIGNAL	N	DRY	ANGL		PRVTE	W -E									000		00
							11P	NEWBERG UA	21.80	PACIFIC HY 99W	04	0		N	DARK	INJ		PSNGR CAR		01	DRVR	NONE	18	F	OR-Y OR<25		020	000		04
																	02	NONE 0	TURN-L											
																		PRVTE	S -W									000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL	WORK	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# / MLG / MILEPNT	FC / TYP / CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	TYPE	PRTC	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
																	PSNGR CAR		01	DRVR		INJB	16	M	OR-Y OR<25		000	000		00
01129	N	N	N	N	N	12/18/2010	YAMHILL	1 14		STRGHT		N	N	CLD	S-1STOP	01	NONE 0	STRGHT													27
COUNTY						SA	NEWBERG	MN 0	PACIFIC HY 99W	SW	(NONE)	UNKNOWN	N	DRY	REAR		PRVTE	SW-NE										000		00
						12P	NEWBERG UA	21.81	BRUTSCHER ST	05	(04)		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE		65	F	OR-Y OR<25		026	000		27
																02	NONE 0	STOP										011		00
																	PRVTE	SW-NE												
																	PSNGR CAR		01	DRVR	NONE		60	F	OR-Y OR<25		000	000		00
																02	NONE 0	STOP										011		00
																	PRVTE	SW-NE												
																	PSNGR CAR		02	PSNG	NO<5		04	M			000	000		00
																02	NONE 0	STOP										011		00
																	PRVTE	SW-NE												
																	PSNGR CAR		03	PSNG	NO<5		02	F			000	000		00
00321	N	N	N			04/30/2011	YAMHILL	1 14		STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT													07
NO RPT						SA	NEWBERG	MN 0	PACIFIC HY 99W	SW	(RSDMD)	UNKNOWN	N	DRY	REAR		PRVTE	SW-NE										000		00
						11A	NEWBERG UA	21.81	BRUTSCHER ST	08	(04)		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE		56	M	OR-Y OR<25		026	000		07
																02	NONE 0	STOP										011		00
																	PRVTE	SW-NE												
																	PSNGR CAR		01	DRVR	NONE		37	M	UNK N-RES		000	000		00
00538	N	N	N			07/02/2010	YAMHILL	1 14		STRGHT		N	N	CLD	S-1STOP	01	NONE 0	STRGHT												013		07
NONE						FR	NEWBERG	MN 0	BRUTSCHER ST	SW	(RSDMD)	UNKNOWN	N	WET	REAR		PRVTE	NE-SW										000		00
						6P	NEWBERG UA	21.82	PACIFIC HY 99W	08	(04)		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE		17	M	OR-Y OR<25		026	000		07
																02	NONE 0	STOP										011	013	00
																	PRVTE	NE-SW												
																	PSNGR CAR		01	DRVR	NONE		00	M	OR-Y OR<25		000	000		00
																03	NONE 0	STOP										011		00
																	PRVTE	NE-SW												
																	PSNGR CAR		01	DRVR	NONE		00	M	OR-Y OR<25		000	000		00
00437	N	N	N	N	N	06/12/2011	YAMHILL	1 14		STRGHT		N	N	CLD	S-1STOP	01	NONE	STRGHT													07
CITY						SU	NEWBERG	MN 0	BRUTSCHER ST	W	(RSDMD)	UNKNOWN	N	WET	REAR		PRVTE	W -E										000		00
						3P	NEWBERG UA	21.83	PACIFIC HY 99W	08	(04)		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE		43	M	OTH-Y N-RES		026	000		07
																02	NONE 0	STOP										011		00
																	PRVTE	W -E												
																	PSNGR CAR		01	DRVR	INJC		47	M	OR-Y OR<25		000	000		00
																02	NONE 0	STOP										011		00
																	PRVTE	W -E												
																	PSNGR CAR		02	PSNG	INJC		11	F			000	000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	S P E D / A L C / U S H / C L K / W O R	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# / COMPNT / MLG / MILEPNT	FC / TYP	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
90348	N N N	01/22/2009	YAMHILL	1 14			STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NO RPT		TH	NEWBERG	MN 0	PACIFIC HY 99W		NE	(NONE)	UNKNOWN	N	DRY	REAR		PRVTE	SW-NE										000		00
		5P	NEWBERG UA	21.84	NEWALL RD		05			N	DARK	PDO		PSNGR CAR		01	DRVR	NONE	00	M	UNK		026	000		07
								(04)													OR>25					
													02	NONE 0	STOP											
														PRVTE	SW-NE									011		00
														PSNGR CAR		01	DRVR	NONE	60	M	OR-Y		000	000		00
																					OR<25					
00482	Y N N	06/16/2010	YAMHILL	1 14			INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											01
CITY		WE	NEWBERG	MN 0	NEWALL RD		UN		UNKNOWN	N	DRY	REAR		PRVTE	N -S										000		00
		4P	NEWBERG UA	21.87	PACIFIC HY 99W		06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	20	M	OR-Y		026,047	000		01
																					OR<25					
													02	NONE 0	STOP											
														PRVTE	N -S									011	013	00
														PSNGR CAR		01	DRVR	INJC	40	M	OR-Y		000	000		00
																					OR<25					
													03	NONE 0	STOP											
														PRVTE	N -S									011	013	00
														PSNGR CAR		01	DRVR	INJC	42	M	OR-Y		000	000		00
																					OR<25					
													04	NONE 0	STOP											
														PRVTE	N -S									011		00
														PSNGR CAR		01	DRVR	INJC	51	M	OR-Y		000	000		00
																					OR<25					
00276	N N N	04/24/2009	YAMHILL	1 14			INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NO RPT		FR	NEWBERG	MN 0	NEWALL RD		N		UNKNOWN	N	DRY	REAR		PRVTE	N -S										000		00
		4P	NEWBERG UA	21.87	PACIFIC HY 99W		06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	48	M	OTH-Y		026	000		07
																					N-RES					
													02	NONE 0	STOP											
														PRVTE	N -S									011		00
														PSNGR CAR		01	DRVR	INJC	46	M	OR-Y		000	000		00
																					OR<25					
00999	Y N N	11/02/2012	YAMHILL	1 14			INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07,01
CITY		FR	NEWBERG	MN 0	NEWALL RD		SW		STOP SIGN	N	WET	REAR		PRVTE	NE-SW										000	124	00
		5P	NEWBERG UA	21.87	PACIFIC HY 99W		05	0		N	DUSK	PDO		PSNGR CAR		01	DRVR	NONE	24	F	OR-Y		043,047	000		07,01
																					OR>25					
													02	NONE 0	STOP											
														PRVTE	NE-SW									011		00
														PSNGR CAR		01	DRVR	NONE	22	F	OR-Y		000	000		00
																					OR<25					
00458	N N N	06/04/2013	YAMHILL	1 14			STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		TU	NEWBERG	MN 0	PACIFIC HY 99W		NE	(RSDMD)	UNKNOWN	N	DRY	REAR		PRVTE	NE-SW										000		00
		4P	NEWBERG UA	21.95	SPRINGBROOK RD		08			N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	18	F	OR-Y		026	000		07
								(04)													OR<25					
													02	NONE 0	STOP											
														PRVTE	NE-SW									011		00
														PSNGR CAR		01	DRVR	INJC	38	M	OR-Y		000	000		00
																					OR<25					
00955	N N N	10/25/2012	YAMHILL	1 14			STRGHT		N	N	CLR	S-STRGHT	01	LOG 1	STRGHT											07

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	S P E D	A L C	R G S	S H L	W O R K	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# FC COMPNT / MLG TYP / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
NONE						TH 5P	NEWBERG NEWBERG UA	MN 0 21.99	PACIFIC HY 99W SPRINGBROOK RD	NE 03	(RSDMD) (04)	UNKNOWN	N N	DRY DAY	REAR PDO		PRVTE SEMI TOW	NE-SW									000 000		00 07
																02	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	50	M	UNK OR-Y OR<25		042 000	000 000		00 00
00932	N	N	N			11/12/2011 SA 5P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.00	PACIFIC HY 99W SPRINGBROOK RD	ALLEY UN 06	(RSDMD) (04)	N UNKNOWN	N N N	RAIN WET DUSK	ANGL-OTH TURN PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT E -W	01	DRVR	NONE	66	M	OR-Y OR<25		000	000		02 00 00
NONE																02	NONE 0 PRVTE PSNGR CAR	TURN-R N -W	01	DRVR	NONE	24	M	OR-Y OR<25		028	018 000		00 02
00364	N	N	N			05/01/2013 WE 3P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.01	PACIFIC HY 99W SPRINGBROOK RD	STRGHT UN 06	(RSDMD) (04)	N NONE	N N N	CLR DRY DAY	S-STRGHT SS-O PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT E -W	01	DRVR	NONE	16	M	OR-Y OR<25		080	000 000		05 00 05
CITY																02	NONE 0 PRVTE PSNGR CAR	STRGHT E -W	01	DRVR	NONE	69	F	OR-Y OR<25		000	000 000		00 00
00029	N	N	N	N	N	01/10/2012 TU 3P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.03	PACIFIC HY 99W SPRINGBROOK RD	INTER UN 05	CROSS 0	N TRF SIGNAL	N N N	CLR DRY DAY	PED PED INJ	01	NONE 0 PRVTE PSNGR CAR	TURN-R W -S	01	DRVR	NONE	71	F	OR-Y OR<25		029	000 026		02 00 02
CITY																												
																		- STRGHT W E	01	PED	INJB	14	F	I XWLK		000	035		00
00458	N	N	N			06/01/2010 TU 4P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.03	PACIFIC HY 99W SPRINGBROOK RD	STRGHT UN 06	(RSDMD) (04)	N TRF SIGNAL	N N N	CLR DRY DAY	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT E -W	01	DRVR	NONE	18	M	OR-Y OR<25		052,026	000 000		32,07 00 32,07
NO RPT																02	NONE 0 PRVTE PSNGR CAR	STOP E -W	01	DRVR	NONE	28	F	OR-Y OR<25		000	011 000		00 00
00504	N	N	N	N	N	07/05/2011 TU 12P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.03	PACIFIC HY 99W SPRINGBROOK RD	STRGHT N 08	(NONE) (04)	N UNKNOWN	N N N	CLR DRY DAY	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT S -N	01	DRVR	NONE	17	M	OR-Y OR<25		026	000 000		07 00 07
CITY																02	NONE 0 PRVTE PSNGR CAR	STOP S -N	01	DRVR	NONE	60	F	OR-Y OR<25		000	011 000		00 00
00905	N	N	N			10/13/2013 SU	YAMHILL NEWBERG	1 14 MN 0	PACIFIC HY 99W	STRGHT NE	(RSDMD)	N UNKNOWN	N N	CLR DRY	S-1STOP REAR	01	NONE 0 PRVTE	STRGHT NE-SW									000		07 00
NONE																												

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	SPE	ALC	DRG	SCH	WLK	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# FC / COMPNT / MLG TYP / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	AGE	SEX	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
						7P	NEWBERG UA	22.03	SPRINGBROOK RD	03	(04)		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	44	M	OR-Y OR>25		026	000		07
																02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	INJC	20	M	OR-Y OR>25		000	011 000		00 00
																02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	02	PSNG	INJC	19	F			000	011 000		00 00
00835 CITY	N	N	N	N	N	10/13/2011 TH 6P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.03	PACIFIC HY 99W SPRINGBROOK RD	STRGHT NE 08	(NONE) (04)	N NONE	N N	UNK UNK DAY	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	INJC	49	F	OR-Y OR<25		026	013 000 000		07 00 07
																02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	NONE	35	F	OR-Y OR<25		000	011 000	013	00 00
																03	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	NONE	20	M	OR-Y OR<25		000	011 000		00 00
00178 NONE	N	N	N			02/24/2012 FR 9P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.03	PACIFIC HY 99W SPRINGBROOK RD	INTER E 06	CROSS 2	N TRF SIGNAL	N N	CLR DRY DARK	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT E -W	01	DRVR	NONE	50	M	OR-Y OR<25		026	000 000		07 00 07
																02	NONE 0 PRVTE PSNGR CAR	STOP E -W	01	DRVR	NONE	65	F	OR-Y OR<25		000	011 000		00 00
00248 NO RPT	N	N	N			03/19/2012 MO 7A	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.03	PACIFIC HY 99W SPRINGBROOK RD	INTER W 06	CROSS 0	N TRF SIGNAL	N N	RAIN WET DAY	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT W -E	01	DRVR	NONE	29	M	OR-Y OR<25		026	013 000 000		27 00 07
																02	NONE PRVTE PSNGR CAR	STOP W -E	01	DRVR	NONE	73	M	OR-Y OR<25		000	011 000	013	00 00
																03	NONE 0 PRVTE PSNGR CAR	STOP W -E	01	DRVR	NONE	61	M	OR-Y OR<25		000	011 000		00 00
00961 NO RPT	N	N	N			10/28/2012 SU 5P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.04	PACIFIC HY 99W SPRINGBROOK RD	STRGHT NE 04	(RSDMD) (04)	N UNKNOWN	N N	RAIN WET DUSK	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	20	F	OR-Y OR>25		026	000 000		07 00 07
																02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	INJC	35	F	OTH-Y N-RES		000	011 000		00 00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	SPEED	ALCHL	DRUGS	CMV	SCHL BUS	WORK ZONE	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# FC / COMPNT / MLG TYP / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	TYPE	SVRTY	AGE	SEX	LICNS	PED LOC	ERROR	ACT	EVENT	CAUSE
																	02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	02	PSNG	INJC	15	F			000	011 000		00 00
																	02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	03	PSNG	INJC	12	M			000	011 000		00 00
01058 NO RPT	N	N	N				11/17/2012 SA 3P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.04	PACIFIC HY 99W SPRINGBROOK RD	STRGHT NE 04	(NONE) (04)	N L-GRN-SIG	N N N	RAIN WET DAY	S-STRGHT SS-O INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	30	F	OR-Y OR<25		045,028	088 000		13,02 00 13,02
																	02	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	INJC	35	F	OR-Y OR<25		000	000 000		00 00
																	02	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	02	PSNG	INJC	14	F			000	000 000		00 00
00319 CITY	N	N	N	N	N		04/18/2013 TH 8P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.05	PACIFIC HY 99W SPRINGBROOK RD	INTER UN 05	CROSS 0	N TRF SIGNAL	N N N	CLR DRY DARK	S-OTHER TURN INJ	01	NONE 0 PRVTE PSNGR CAR	TURN-L N -E	01	DRVR	NONE	69	M	OR-Y OR<25	080		000 000		05 00 05
																	02	NONE 0 PRVTE PSNGR CAR	TURN-L N -E	01	DRVR	NONE	42	M	OR-Y OR<25	000		000 000		00 00
																	02	NONE 0 PRVTE PSNGR CAR	TURN-L N -E	02	PSNG	INJC	41	F		000		000 000		00 00
																	02	NONE 0 PRVTE PSNGR CAR	TURN-L N -E	03	PSNG	INJC	12	F		000		000 000		00 00
00021 NO RPT	N	N	N				01/12/2009 MO 8P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.05	PACIFIC HY 99W SPRINGBROOK RD	INTER UN 06	CROSS 2	N TRF SIGNAL	N N N	CLR DRY DARK	S-STRGHT REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	INJB	61	M	OR-Y OR<25	042		000 000		07 00 07
																	02	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	26	F	OR-Y OR<25	000		000 000		00 00
00732 NONE	N	N	N				09/11/2011 SU 7P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.05	PACIFIC HY 99W SPRINGBROOK RD	INTER NE 05	CROSS 0	N TRF SIGNAL	N N N	CLR DRY DAY	S-STRGHT SS-O PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT SW-NE	01	DRVR	NONE	00	F	OR-Y OR<25	045		000 000		13 00 13
																	02	NONE 0 PRVTE	STRGHT SW-NE									000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL	WORK	DAY	DATE / TIME	COUNTY / CITY / URBAN AREA	RD# FC / COMPNT / MLG TYP / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
																		PSNGR CAR		01	DRVR	NONE	31	F	OR-Y OR<25		000	000		00
00322 NONE	N	N	N				04/15/2009 WE 5P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.05	 PACIFIC HY 99W SPRINGBROOK RD	INTER NE 06	CROSS 0	N TRF SIGNAL	N N N	CLR DRY DAY	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	00	M	OR-Y OR<25		026	000 000		07 00 07
																	02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	NONE	71	M	OR-Y OR<25		000	011 000		00 00
00489 NO RPT	N	N	N				06/30/2009 TU 3P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.05	 PACIFIC HY 99W SPRINGBROOK RD	INTER NE 06	CROSS 0	N TRF SIGNAL	N N N	UNK UNK DAY	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	30	F	UNK OR<25		026	000 000		07 00 07
																	02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	NONE	34	M	OTH-Y N-RES		000	011 000		00 00
00578 NO RPT	N	N	N				07/13/2009 MO 11A	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.05	 PACIFIC HY 99W SPRINGBROOK RD	INTER NE 06	CROSS 0	N TRF SIGNAL	N N N	CLR DRY DAY	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	33	F	OR-Y OR<25		026	000 000	013	07 00 07
																	02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	NONE	35	F	OR-Y OR<25		000	011 000	013	00 00
																	03	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	NONE	00	Unk	UNK UNK		000	011 000		00 00
00870 NO RPT	N	N	N				10/13/2010 WE 3P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.05	 PACIFIC HY 99W SPRINGBROOK RD	INTER NE 06	CROSS 0	N TRF SIGNAL	N N N	CLR DRY DAY	S-1STOP REAR PDO	01	NONE PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	37	F	OR-Y OR<25		026	000 000	013	07 00 07
																	02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	NONE	68	M	OR-Y OR<25		000	011 000	013	00 00
																	03	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	NONE	67	F	OR-Y OR<25		000	011 000		00 00
00516 NONE	N	N	N				07/07/2011 TH 8A	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.05	 PACIFIC HY 99W SPRINGBROOK RD	INTER NE 06	CROSS 0	N TRF SIGNAL	N N N	UNK UNK DAY	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	00	M	OR-Y UNK		026	000 000		07 00 07
																	02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	NONE	60	M	OR-Y		000	011 000		00 00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	S P E D	R S W A U C O H R L G L K	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# FC / COMPNT / MLG TYP / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES / LOC	PED / ERROR	ACT EVENT	CAUSE
00692	N	N N	08/26/2011	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT						OR-Y			07
NONE			FR	NEWBERG	MN 0	PACIFIC HY 99W	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW						OR<25		000	00
			3P	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	39	M	OR-Y	026	000	07
																					OR<25			
													02	NONE 0	STOP									
														PRVTE	NE-SW								011	00
														PSNGR CAR		01	DRVR	NONE	25	F	OR-Y	000	000	00
																					OR<25			
													02	NONE 0	STOP									
														PRVTE	NE-SW								011	00
														PSNGR CAR		02	PSNG	NO<5	02	F		000	000	00
													02	NONE 0	STOP									
														PRVTE	NE-SW								011	00
														PSNGR CAR		03	PSNG	NO<5	01	M		000	000	00
01087	N	N N	12/23/2011	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	BACK									10
NONE			FR	NEWBERG	MN 0	PACIFIC HY 99W	NE		TRF SIGNAL	N	DRY	REAR		UNKN	SW-NE								000	00
			5P	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y	011	000	10
																					UNK			
													02	NONE 0	STOP									
														PRVTE	NE-SW								011	00
														PSNGR CAR		01	DRVR	NONE	25	F	OR-Y	000	000	00
																					OR<25			
00690	N	N N	08/11/2012	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1TURN	01	NONE 0	STRGHT									13
NO RPT			SA	NEWBERG	MN 0	PACIFIC HY 99W	NE		TRF SIGNAL	N	DRY	TURN		PRVTE	NE-SW								000	00
			11A	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	24	F	OR-Y	045	000	13
																					OR<25			
													02	NONE 0	TURN-L									
														PRVTE	NE-S								000	00
														PSNGR CAR		01	DRVR	NONE	74	M	OR-Y	000	000	00
																					OR>25			
00851	N	N N	09/28/2012	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT									07
NO RPT			FR	NEWBERG	MN 0	PACIFIC HY 99W	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW								000	00
			2P	NEWBERG UA	22.05	SPRINGBROOK RD	06	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	19	M	OR-Y	026	000	07
																					OR<25			
													02	NONE 0	STOP									
														PRVTE	NE-SW								011	00
														PSNGR CAR		01	DRVR	NONE	86	M	OR-Y	000	000	00
																					OR<25			
01210	N	N N	12/27/2012	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT									27
NO RPT			TH	NEWBERG	MN 0	PACIFIC HY 99W	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW								000	00
			9P	NEWBERG UA	22.05	SPRINGBROOK RD	06	2		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	30	F	OR-Y	016,026	038	27
																					OR<25			
													01	NONE 0	STRGHT									
														PRVTE	NE-SW								000	00
														PSNGR CAR		02	PSNG	NO<5	04	M		000	000	00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	S P E D	A L C	R S H	U G S	S W O R K	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# FC / COMPNT / MLG TYP / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	TYPE	SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT EVENT	CAUSE
																02	NONE 0	STOP										
																	PRVTE	NE-SW									011	00
																	PSNGR CAR		01	DRVR	NONE	47	M	OR-Y		000	000	00
																								OR<25				
00766	N	N	N			09/02/2013	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NO RPT						MO	NEWBERG	MN 0	PACIFIC HY 99W	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000	00
						5P	NEWBERG UA	22.05	SPRINGBROOK RD	06	1		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	22	F	OR-Y		026	000	07
																								OR<25				
																02	NONE 0	STOP										
																	PRVTE	NE-SW									011	00
																	PSNGR CAR		01	DRVR	INJC	52	F	OR-Y		000	000	00
																								OR<25				
																02	NONE 0	STOP										
																	PRVTE	NE-SW									011	00
																	PSNGR CAR		02	PSNG	INJC	17	F			000	000	00
00917	Y	N	N	N	N	09/25/2013	YAMHILL	1 14		STRGHT		N	N	CLR	ANGL-STP	01	NONE 0	TURN-L										32,01
CITY						WE	NEWBERG	MN 0	PACIFIC HY 99W	NE	(RSDMD)	TRF SIGNAL	N	DRY	TURN		PRVTE	N -NE									000	00
						5P	NEWBERG UA	22.05	SPRINGBROOK RD	06	(05)		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	18	M	OR-Y		052,047,080	017	32,01
																								OR<25				
																02	NONE 0	STOP										
																	PRVTE	NE-SW									012	00
																	PSNGR CAR		01	DRVR	NONE	26	F	OR-Y		000	000	00
																								OR<25				
																02	NONE 0	STOP										
																	PRVTE	NE-SW									012	00
																	PSNGR CAR		02	PSNG	NO<5	01	F			000	000	00
00947	N	N	N			10/26/2013	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	TURN-L										07
NONE						SA	NEWBERG	MN 0	PACIFIC HY 99W	NE		L-GRN-SIG	N	DRY	REAR		PRVTE	NE-S									000	00
						10A	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	48	M	OR-Y		026	000	07
																								OR>25				
																02	NONE 0	STOP										
																	PRVTE	NE-SW									012	00
																	PSNGR CAR		01	DRVR	INJC	24	M	OR-Y		000	000	00
																								OR<25				
																02	NONE 0	STOP										
																	PRVTE	NE-SW									012	00
																	PSNGR CAR		02	PSNG	INJC	23	F			000	000	00
00065	N	N	N			01/05/2010	YAMHILL	1 14		INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	TURN-R										27,07
NONE						TU	NEWBERG	MN 0	PACIFIC HY 99W	NE		YIELD	N	WET	REAR		PRVTE	E -N									000	00
						7P	NEWBERG UA	22.05	SPRINGBROOK RD	09	2		N	DARK	PDO		PSNGR CAR		01	DRVR	NONE	55	M	OR-Y		026,016	000	27,07
																								OR<25				
																02	NONE 0	STOP										
																	PRVTE	E -N									011	00
																	PSNGR CAR		01	DRVR	NONE	28	F	OR-Y		000	000	00
																								OR<25				
00124	Y	N	N	N	N	02/19/2011	YAMHILL	1 14		INTER	CROSS	N	N	CLD	ANGL-OTH	01	NONE 0	U-TURN										08,01

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	S P E D	A L C	R G S	S H L	W O R K	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# FC / COMPNT / MLG TYP / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	TYPE	SVRTY	A G E	S X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
CITY						SA	NEWBERG	MN 0	PACIFIC HY 99W	E		TRF SIGNAL	N	DRY	TURN		PRVTE	E -E									000		00
						2P	NEWBERG UA	22.05	SPRINGBROOK RD	05	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	32	M	OR-Y		008	000		08,01
																								OR<25					
																02	NONE 0	TURN-R											
																	PRVTE	S -E									016		00
																	PSNGR CAR		01	DRVR	NONE	17	M	OR-Y		000	000		00
																								OR<25					
00711	N	N	N	N N		09/02/2011	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	POLCE	STRGHT											07
CITY						FR	NEWBERG	MN 0	PACIFIC HY 99W	E		TRF SIGNAL	N	DRY	REAR		PRVTE	E -W									000		00
						4P	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	39	M	OR-Y		026	000		07
																								OR<25					
																02	NONE 1	STOP											
																	PRVTE	E -W									011		00
																	PSNGR CAR		01	DRVR	NONE	41	F	OR-Y		000	000		00
																								OR<25					
00125	N	N	N			02/19/2013	YAMHILL	1 14		INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
CITY						TU	NEWBERG	MN 0	PACIFIC HY 99W	E		TRF SIGNAL	N	WET	REAR		PRVTE	E -W									000		00
						7A	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	25	F	OR-Y		026	000		07
																								OR<25					
																02	NONE 0	STOP											
																	PRVTE	E -W									011		00
																	PSNGR CAR		01	DRVR	INJC	38	M	OR-Y		000	000		00
																								OR<25					
00667	N	N	N			07/31/2013	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										013	32
CITY						WE	NEWBERG	MN 0	PACIFIC HY 99W	E		NONE	N	DRY	REAR		PRVTE	E -W									000		00
						3P	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	59	M	OR-Y		052,026	000		32
																								OR<25					
																02	NONE 0	STOP											
																	PRVTE	E -W									011	013	00
																	PSNGR CAR		01	DRVR	INJC	50	M	OR-Y		000	000		00
																								OR<25					
																03	NONE 0	STOP											
																	PRVTE	E -W									011		00
																	PSNGR CAR		01	DRVR	INJC	52	F	OR-Y		000	000		00
																								OR<25					
00845	N	N	N			09/26/2013	YAMHILL	1 14		INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NO RPT						TH	NEWBERG	MN 0	PACIFIC HY 99W	E		TRF SIGNAL	N	WET	REAR		PRVTE	E -W									000		00
						5P	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	23	F	OR-Y		026	000		07
																								OR<25					
																02	NONE 0	STOP											
																	PRVTE	E -W									011		00
																	MTRCYCLE		01	DRVR	INJC	42	M	OR-Y		000	000		00
																								OR<25					
00745	N	N	N	N	N	09/25/2009	YAMHILL	1 14		INTER	CROSS	N	N	CLR	BIKE	01	NONE 0	TURN-R											02
CITY						FR	NEWBERG	MN 0	PACIFIC HY 99W	S		TRF SIGNAL	N	DRY	TURN		PRVTE	S -NE									016		00
						2P	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	55	M	OR-Y		027	000		02
																								OR<25					
																		-											

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	SPE	ALG	DRC	SLS	WHR	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# FC / COMPNT / MLG TYP / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	TYPE	INJ / SVRTY	AGE	SEX	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
																		STRGHT SW NE	01	BIKE	INJC	33	M		I XWLK	000	035		00
01195	N	N	N			12/21/2012	YAMHILL	1 14		INTER	CROSS	N	N	RAIN	S-1STOP	01	POLCE 0	STRGHT											07
STATE						FR	NEWBERG	MN 0	PACIFIC HY 99W	S		TRF SIGNAL	N	WET	REAR		PUBLC	S -N									000		00
						9A	NEWBERG UA	22.05	SPRINGBROOK RD	06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	28	M	OR-Y OR<25		026	000		07
																02	NONE 0	STOP											
																	PRVTE	S -N									011		00
																	PSNGR CAR		01	DRVR	INJC	35	F	OR-Y OR<25		000	000		00
00969	N	N	N	N	N	10/27/2012	YAMHILL	1 14		STRGHT		N	N	RAIN	S-1STOP	01	NONE 0	STRGHT										013	07
CITY						SA	NEWBERG	MN 0	PACIFIC HY 99W	SW	(RSDMD)	TRF SIGNAL	N	WET	REAR		PRVTE	NE-SW									000		00
						6P	NEWBERG UA	22.05	SPRINGBROOK RD	03	(04)		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	51	M	OTH-Y N-RES		043	000		07
																01	NONE 0	STRGHT											
																	PRVTE	NE-SW									000		00
																	PSNGR CAR		02	PSNG	INJC	48	F			000	000		00
																02	NONE 0	STOP											
																	PRVTE	NE-SW									022	013	00
																	PSNGR CAR		01	DRVR	INJC	36	M	OTH-Y N-RES		000	000		00
																03	NONE 0	STOP											
																	PRVTE	NE-SW									011		00
																	PSNGR CAR		01	DRVR	NONE	67	F	OR-Y OR<25		000	000		00
00987	N	N	N			11/01/2012	YAMHILL	1 14		INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 0	TURN-L											08,02
NO RPT						TH	NEWBERG	MN 0	PACIFIC HY 99W	SW		L-GRN-SIG	N	WET	TURN		PRVTE	S -SW									000		00
						7A	NEWBERG UA	22.05	SPRINGBROOK RD	05	0		N	DAWN	PDO		SCHL BUS		01	DRVR	NONE	58	M	OR-Y OR<25		007,028	000		08,02
																02	NONE 0	TURN-L											
																	PRVTE	S -SW									000		00
																	PSNGR CAR		01	DRVR	NONE	48	M	OR-Y OR<25		000	000		00
00066	N	N	N	N	N	01/20/2009	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											32,07
CITY						TU	NEWBERG	MN 0	PACIFIC HY 99W	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						10A	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	32	M	OR-Y OR<25		052,026	000		32,07
																02	NONE 0	STOP											
																	PRVTE	SW-NE									011		00
																	PSNGR CAR		01	DRVR	NONE	43	M	OTH-Y N-RES		000	000		00
00548	N	N	N			07/01/2009	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NO RPT						WE	NEWBERG	MN 0	PACIFIC HY 99W	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						11A	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	22	M	OR-Y OR<25		026	000		07
																02	NONE 0	STOP											
																	PRVTE	SW-NE									011		00
																	PSNGR CAR		01	DRVR	INJC	28	M	OR-Y		000	000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	S P E D	A L C	R S U	S L	W O R K	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# FC / COMPNT / MLG TYP / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT EVENT	CAUSE
																								OR<25				
																02	NONE 0	STOP										
																	PRVTE	SW-NE									011	00
																	PSNGR CAR		02	PSNG	INJC	22	M		000	000	000	
																02	NONE 0	STOP										
																	PRVTE	SW-NE									011	00
																	PSNGR CAR		03	PSNG	NO<5	02	F		000	000	000	
00743	N	N	N			09/25/2009	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
CITY						FR	NEWBERG	MN 0	PACIFIC HY 99W	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000	00
						1P	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJA	29	F	OR-Y	026	000	000	07
																								OR<25				
																02	NONE 0	STOP										
																	PRVTE	SW-NE									011	00
																	PSNGR CAR		01	DRVR	INJC	42	M	OR-Y	000	000	000	
																								OR<25				
00776	N	N	N	N	N	10/21/2009	YAMHILL	1 14		INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT										33,07
CITY						WE	NEWBERG	MN 0	PACIFIC HY 99W	SW		TRF SIGNAL	N	SNO	REAR		PRVTE	SW-NE									000	00
						9A	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	49	M	OR-Y	051,026	000	000	33,07
																								OR<25				
																02	NONE 0	STOP										
																	PRVTE	SW-NE									011	00
																	PSNGR CAR		01	DRVR	INJC	49	F	OR-Y	000	000	000	
																								OR<25				
00826	N	N	N			10/08/2009	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										27,07
NONE						TH	NEWBERG	MN 0	PACIFIC HY 99W	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000	00
						3P	NEWBERG UA	22.05	SPRINGBROOK RD	06	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	76	F	OR-Y	016,026	000	000	27,07
																								OR<25				
																02	NONE 0	STOP										
																	PRVTE	SW-NE									011	00
																	PSNGR CAR		01	DRVR	NONE	31	M	OR-Y	000	000	000	
																								OR<25				
86584	N	N	N			12/16/2009	YAMHILL	1 14		INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT										07
NO RPT						WE	NEWBERG	MN 0	PACIFIC HY 99W	SW		TRF SIGNAL	N	WET	REAR		PRVTE	SW-NE									000	00
						11A	NEWBERG UA	22.05	SPRINGBROOK RD	06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	71	M	OR-Y	026	000	000	07
																								OR<25				
																02	NONE 0	STOP										
																	PRVTE	SW-NE									011	00
																	PSNGR CAR		01	DRVR	INJC	54	F	OR-Y	000	000	000	
																								OR<25				
00236	N	N	N			03/26/2010	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NONE						FR	NEWBERG	MN 0	PACIFIC HY 99W	SW		TRF SIGNAL	N	WET	REAR		PRVTE	SW-NE									000	00
						12P	NEWBERG UA	22.05	SPRINGBROOK RD	06	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	59	M	OR-Y	014	000	000	07
																								OR>25				
																02	NONE 0	STOP										
																	PRVTE	SW-NE									011	00
																	PSNGR CAR		01	DRVR	NONE	21	F	OR-Y	000	000	000	
																								OR<25				

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	S P E D	A L C	R U G	S C H	W O R K	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# FC / COMPNT / MLG TYP / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES / PED LOC	ERROR	ACT EVENT	CAUSE
00830	N	N	N			09/24/2010	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	STRGHT									07
NONE						FR	NEWBERG	MN 0	PACIFIC HY 99W	SW		UNKNOWN	N	DRY	REAR		PRVTE	SW-NE								000	00
						12P	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	UNK OR<25	026	000	07
																02	NONE 0	STOP									
																	PRVTE	SW-NE								011	00
																	PSNGR CAR		01	DRVR	NONE	29	F	OR-Y OR<25	000	000	00
00961	N	N	N			11/05/2010	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT									07
NO RPT						FR	NEWBERG	MN 0	PACIFIC HY 99W	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE								000	00
						2P	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	35	F	OR-Y OR>25	014	000	07
																02	NONE 0	STOP									
																	PRVTE	SW-NE								011	00
																	PSNGR CAR		01	DRVR	INJC	38	M	OTH-Y N-RES	000	000	00
																02	NONE 0	STOP									
																	PRVTE	SW-NE								011	00
																	PSNGR CAR		02	PSNG	INJC	35	F		000	000	00
01177	N	N	N			12/17/2010	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT									07
NO RPT						FR	NEWBERG	MN 0	PACIFIC HY 99W	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE								000	00
						4P	NEWBERG UA	22.05	SPRINGBROOK RD	06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	59	F	OR-Y OR<25	014	000	07
																02	NONE 0	STOP									
																	PRVTE	SW-NE								011	00
																	PSNGR CAR		01	DRVR	NONE	43	F	OR-Y OR<25	000	000	00
																02	NONE 0	STOP									
																	PRVTE	SW-NE								011	00
																	PSNGR CAR		02	PSNG	INJC	43	M		000	000	00
01065	N	N	N			12/03/2010	YAMHILL	1 14		INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT									07
NONE						FR	NEWBERG	MN 0	PACIFIC HY 99W	SW		TRF SIGNAL	N	WET	REAR		PRVTE	SW-NE								000	00
						7P	NEWBERG UA	22.05	SPRINGBROOK RD	06	2		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	15	F	OR-Y OR<25	026	000	07
																02	NONE 0	STOP									
																	PRVTE	SW-NE								011	00
																	PSNGR CAR		01	DRVR	INJC	17	F	OR-Y OR<25	000	000	00
00507	N	N	N			06/20/2011	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT								013	07
NO RPT						MO	NEWBERG	MN 0	PACIFIC HY 99W	SW		UNKNOWN	N	DRY	REAR		PRVTE	SW-NE								000	00
						3P	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	59	F	OR-Y OR<25	026	000	07
																02	NONE 0	STOP									
																	PRVTE	SW-NE								011 013	00
																	PSNGR CAR		01	DRVR	NONE	51	M	OTH-Y N-RES	000	000	00
																03	NONE 0	STOP									

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL	WORK	DAY	DATE / TIME	COUNTY / CITY / URBAN AREA	RD# FC / COMPNT / MLG TYP / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT EVENT	CAUSE
																		PRVTE	SW-NE								011	00
																		PSNGR CAR		01	DRVR NONE	31 F		OR-Y OR<25		000	000	00
01023	N	N	N				12/06/2011	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NONE							TU	NEWBERG	MN 0	PACIFIC HY 99W	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE								000	00
							2P	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR NONE	00 M		UNK OR<25		026	000	07
																	02	NONE 0	STOP									
																		PRVTE	SW-NE								011	00
																		PSNGR CAR		01	DRVR NONE	72 M		OR-Y OR<25		000	000	00
01058	N	N	N				12/15/2011	YAMHILL	1 14		INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT										07
NONE							TH	NEWBERG	MN 0	PACIFIC HY 99W	SW		TRF SIGNAL	N	WET	REAR		PRVTE	SW-NE								000	00
							8A	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR NONE	25 M		OR-Y OR>25		026	000	07
																	02	NONE 0	STOP									
																		PRVTE	SW-NE								011	00
																		PSNGR CAR		01	DRVR NONE	40 M		OR-Y OR<25		000	000	00
00066	N	N	N				01/21/2012	YAMHILL	1 14		INTER	CROSS	N	N	CLR	ANGL-STP	01	NONE 0	TURN-L										13
NO RPT							SA	NEWBERG	MN 0	PACIFIC HY 99W	SW		UNKNOWN	N	DRY	TURN		PRVTE	SW-N								000	00
							9P	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DARK	PDO		PSNGR CAR		01	DRVR NONE	17 F		OR-Y OR<25		045	000	13
																	02	NONE 0	STOP									
																		PRVTE	SW-NE								012	00
																		PSNGR CAR		01	DRVR NONE	57 M		OR-Y OR<25		000	000	00
00562	N	N	N				07/06/2012	YAMHILL	1 14		STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NO RPT							FR	NEWBERG	MN 0	PACIFIC HY 99W	SW	(NONE)	UNKNOWN	N	DRY	REAR		PRVTE	SW-NE								000	00
							6P	NEWBERG UA	22.05	SPRINGBROOK RD	06	(04)		N	DAY	PDO		PSNGR CAR		01	DRVR NONE	19 M		OR-Y OR<25		026	000	07
																	02	NONE 0	STOP									
																		PRVTE	SW-NE								011	00
																		PSNGR CAR		01	DRVR NONE	00 M		UNK UNK		000	000	00
00818	N	N	N				09/21/2012	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT									124	07
NONE							FR	NEWBERG	MN 0	PACIFIC HY 99W	SW		TRF SIGNAL	N	WET	REAR		PRVTE	SW-NE								000 124	00
							3P	NEWBERG UA	22.05	SPRINGBROOK RD	06	2		N	DAY	PDO		PSNGR CAR		01	DRVR NONE	19 M		OR-Y OR<25		026	000	07
																	02	NONE 0	STOP									
																		PRVTE	SW-NE								011	00
																		PSNGR CAR		01	DRVR NONE	26 F		OR-Y OR<25		000	000	00
00868	N	N	N	N	N		10/02/2012	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
CITY							TU	NEWBERG	MN 0	PACIFIC HY 99W	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE								000	00
							5P	NEWBERG UA	22.05	SPRINGBROOK RD	06	2		N	DAY	INJ		PSNGR CAR		01	DRVR NONE	44 M		OR-Y OR<25		043	000	07
																	02	NONE 0	STOP									
																		PRVTE	SW-NE								011	00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	SPE	DRU	SCH	WKR	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# / COMPNT / MILEPNT	FC / TYP	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
																	PSNGR CAR		01	DRVR	INJC	41	M	OR-Y		000	000		00
																								OR<25					
																02	NONE 0	STOP											
																	PRVTE	SW-NE									011		00
																	PSNGR CAR		02	PSNG	INJC	39	F			000	000		00
00873	N	N	N		10/03/2012	YAMHILL	1 14			INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE					WE	NEWBERG	MN 0	PACIFIC HY 99W		SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
					12P	NEWBERG UA	22.05	SPRINGBROOK RD		06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	20	F	OTH-Y		026	000		07
																								OR<25					
																02	NONE 0	STOP											
																	PRVTE	SW-NE									011		00
																	PSNGR CAR		01	DRVR	INJC	41	M	OR-Y		000	000		00
																								OR<25					
00888	Y	N	N		10/07/2012	YAMHILL	1 14			INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										093	01
NO RPT					SU	NEWBERG	MN 0	PACIFIC HY 99W		SW		L-GRN-SIG	N	DRY	REAR		PRVTE	SW-NE									000		00
					12P	NEWBERG UA	22.05	SPRINGBROOK RD		06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	24	M	OR-Y		047	088	093	01
																								OR>25					
																02	NONE 0	STOP											
																	PRVTE	SW-NE									012		00
																	PSNGR CAR		01	DRVR	INJC	69	M	OTH-Y		000	000		00
																								N-RES					
																02	NONE 0	STOP											
																	PRVTE	SW-NE									012		00
																	PSNGR CAR		02	PSNG	INJC	65	F			000	000		00
00278	N	N	N	N	04/04/2013	YAMHILL	1 14			INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT											07
CITY					TH	NEWBERG	MN 0	PACIFIC HY 99W		SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
					7A	NEWBERG UA	22.05	SPRINGBROOK RD		06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	47	M	OR-Y		026	000		07
																								OR<25					
																02	NONE 0	STOP											
																	PRVTE	SW-NE									011		00
																	PSNGR CAR		01	DRVR	INJC	39	M	OR-Y		000	000		00
																								OR<25					
00294	N	N	N		04/09/2013	YAMHILL	1 14			INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NO RPT					TU	NEWBERG	MN 0	PACIFIC HY 99W		SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
					1P	NEWBERG UA	22.05	SPRINGBROOK RD		06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	25	F	OR-Y		026	000		07
																								OR<25					
																02	NONE 0	STOP											
																	PRVTE	SW-NE									011		00
																	PSNGR CAR		01	DRVR	NONE	55	M	OR-Y		000	000		00
																								OR<25					
00460	N	N	N		06/04/2013	YAMHILL	1 14			INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
CITY					TU	NEWBERG	MN 0	PACIFIC HY 99W		SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
					7A	NEWBERG UA	22.05	SPRINGBROOK RD		06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	62	M	OR-Y		026	000		07
																								OR<25					
																02	NONE 0	STOP											
																	PRVTE	SW-NE									011		00
																	PSNGR CAR		01	DRVR	INJC	44	M	OR-Y		000	000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	S P E D	A L C	R S U	W C S	O H L	R K	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# FC / COMPNT / MLG TYP / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S X	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
00545	N	N	N				06/26/2013	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT						OR<25			07
NONE							WE	NEWBERG	MN 0	PACIFIC HY 99W	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE								000	00
							9A	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	UNK	026	000	07
																									UNK			
																	02	NONE 0	STOP									
																		PRVTE	SW-NE								011	00
																		PSNGR CAR		01	DRVR	NONE	46	F	OR-Y	000	000	00
																									OR<25			
00688	N	N	N				08/06/2013	YAMHILL	1 14		INTER	CROSS	N	N	UNK	S-1STOP	01	NONE	STRGHT									07
NONE							TU	NEWBERG	MN 0	PACIFIC HY 99W	SW		TRF SIGNAL	N	UNK	REAR		PRVTE	SW-NE								000	00
							3P	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	18	M	OR-Y	026	000	07
																									OR<25			
																	02	NONE 0	STOP									
																		PRVTE	SW-NE								011	00
																		PSNGR CAR		01	DRVR	NONE	51	M	OR-Y	000	000	00
																									OR<25			
01203	N	N	N				12/31/2013	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT									07
NO RPT							TU	NEWBERG	MN 0	PACIFIC HY 99W	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE								000	00
							5P	NEWBERG UA	22.05	SPRINGBROOK RD	06	2		N	DUSK	INJ		PSNGR CAR		01	DRVR	NONE	41	F	OR-Y	026	000	07
																									OR<25			
																	02	NONE 0	STOP									
																		PRVTE	SW-NE								011	00
																		PSNGR CAR		01	DRVR	INJC	61	F	OR-Y	000	000	00
																									OR<25			
																	02	NONE 0	STOP									
																		PRVTE	SW-NE								011	00
																		PSNGR CAR		02	PSNG	INJC	59	M		000	000	00
00038	Y	N	N				01/12/2011	YAMHILL	1 14		INTER	CROSS	N	N	RAIN	S-STRGHT	01	NONE 0	STRGHT									01
NONE							WE	NEWBERG	MN 0	PACIFIC HY 99W	W		TRF SIGNAL	N	WET	REAR		PRVTE	W -E								000	00
							5P	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DARK	INJ		PSNGR CAR		01	DRVR	NONE	58	F	OR-Y	042	000	01
																									OR<25			
																	02	NONE 0	STRGHT									
																		PRVTE	W -E								000	00
																		PSNGR CAR		01	DRVR	INJC	47	F	OR-Y	000	000	00
																									OR<25			
00168	N	N	N				03/02/2011	YAMHILL	1 14		INTER	CROSS	N	N	UNK	S-1STOP	01	NONE	STRGHT									07,27
NONE							WE	NEWBERG	MN 0	PACIFIC HY 99W	W		UNKNOWN	N	UNK	REAR		PRVTE	W -E								000	00
							4P	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	34	M	OR-Y	026	000	07,27
																									OR<25			
																	02	NONE 0	STOP									
																		PRVTE	W -E								011	00
																		PSNGR CAR		01	DRVR	NONE	35	M	OR-Y	000	000	00
																									OR<25			
00493	Y	N	N				07/01/2011	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT									01
CITY							FR	NEWBERG	MN 0	PACIFIC HY 99W	W		TRF SIGNAL	N	DRY	REAR		PRVTE	E -W								000	00
							12P	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK	026	000	01
																									UNK			

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	SPE	DRA	SCL	WHK	RSO	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# FC / COMPNT / MLG TYP / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S F X	LICNS / RES	PED LOC	ERROR	ACT EVENT	CAUSE
																02	NONE 0	STOP										
																	PRVTE	E -W									011	00
																	PSNGR CAR		01	DRVR	NONE	37 F		OR-Y		000	000	00
																								OR<25				
																02	NONE 0	STOP										
																	PRVTE	E -W									011	00
																	PSNGR CAR		02	PSNG	NO<5	01 M				000	000	00
00686	N	N	N			08/24/2011	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	STRGHT										07
NONE						WE	NEWBERG	MN 0	PACIFIC HY 99W	W		UNKNOWN	N	DRY	REAR		PRVTE	W -E									000	00
						4P	NEWBERG UA	22.05	SPRINGBROOK RD	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	52 F		OR-Y		026	000	07
																								OR<25				
																02	NONE	STOP										
																	PRVTE	W -E									011	00
																	PSNGR CAR		01	DRVR	NONE	34 F		OR-Y		000	000	00
																								OR<25				
00138	N	N	N			02/21/2013	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NONE						TH	NEWBERG	MN 0	PACIFIC HY 99W	W		YIELD	N	DRY	REAR		PRVTE	W -E									000	00
						3P	NEWBERG UA	22.05	SPRINGBROOK RD	06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	00 M		UNK		026	000	07
																								OR>25				
																02	NONE 0	STOP										
																	PRVTE	W -E									011	00
																	PSNGR CAR		01	DRVR	INJC	32 M		OR-Y		000	000	00
																								OR>25				
00895	N	N	N			10/19/2010	YAMHILL	1 14		INTER	CROSS	N	N	CLR	O-1TURN	01	NONE 0	TURN-L										04
NO RPT						TU	NEWBERG	MN 0	PACIFIC HY 99W	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	N -E									000	00
						8A	NEWBERG UA	22.05	SPRINGBROOK RD	02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	42 F		OR-Y		020	000	04
																								OR<25				
																02	NONE 0	STRGHT										
																	PRVTE	S -N									000	00
																	PSNGR CAR		01	DRVR	INJC	34 F		OR-Y		000	000	00
																								OR<25				
00821	N	N	N			09/21/2012	YAMHILL	1 14		INTER	CROSS	N	N	RAIN	O-1TURN	01	NONE 0	STRGHT										04
NO RPT						FR	NEWBERG	MN 0	PACIFIC HY 99W	CN		L-GRN-SIG	N	WET	TURN		PRVTE	NE-SW									000	00
						6A	NEWBERG UA	22.05	SPRINGBROOK RD	02	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00 F		UNK		020	000	04
																								UNK				
																02	NONE 0	TURN-L										
																	PRVTE	SW-N									000	00
																	PSNGR CAR		01	DRVR	NONE	22 M		OR-Y		000	000	00
																								OR<25				
01045	N	N	N			11/15/2012	YAMHILL	1 14		INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT									092	07,14
NONE						TH	NEWBERG	MN 0	PACIFIC HY 99W	CN		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000	00
						3P	NEWBERG UA	22.05	SPRINGBROOK RD	02	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	25 F		OR-Y		026	000	07,14
																								OR<25				
																02	NONE 0	STOP										
																	PRVTE	NE-SW									011	00
																	PSNGR CAR		01	DRVR	INJC	30 M		OR-Y		000	000	00
																								OR<25				
00146	N	N	N			02/19/2009	YAMHILL	1 14		INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	TURN-R										04

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	S P E D	A L C	R S G	S H L	W O R K	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# FC / COMPNT / MLG TYP / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC	INJ	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
NONE						TH	NEWBERG	MN 0	PACIFIC HY 99W	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	SW-S									000		00
						6P	NEWBERG UA	22.05	SPRINGBROOK RD	03	2		Y	DARK	PDO		PSNGR CAR		01	DRVR	NONE	50	F	OR-Y		020	000		04
																									OR<25				
																02	NONE 0	STRGHT											
																	PRVTE	N -S									000		00
																	PSNGR CAR		01	DRVR	NONE	46	F	OR-Y		000	000		00
																									OR<25				
00430	N	N	N	N	N	06/08/2009	YAMHILL	1 14		INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	TURN-L											32,04
CITY						MO	NEWBERG	MN 0	PACIFIC HY 99W	CN		TRF SIGNAL	N	DRY	ANGL		PRVTE	N -NE									000		00
						5P	NEWBERG UA	22.05	SPRINGBROOK RD	03	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	56	F	OR-Y		052,020	000		32,04
																									OR<25				
																02	NONE 0	STRGHT											
																	PRVTE	SW-NE									000		00
																	PSNGR CAR		01	DRVR	INJB	30	F	OR-Y		000	000		00
																									OR<25				
00400	N	N	N			05/28/2011	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NO RPT						SA	NEWBERG	MN 0	PACIFIC HY 99W	CN		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000		00
						4P	NEWBERG UA	22.05	SPRINGBROOK RD	03	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	68	M	OR-Y		026	000		07
																									OR>25				
																02	NONE 0	STOP											
																	PRVTE	W -E									011		00
																	PSNGR CAR		01	DRVR	NONE	33	F	OR-Y		000	000		00
																									OR<25				
00272	N	N	N	N	N	03/27/2012	YAMHILL	1 14		INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 0	STRGHT											03
CITY						TU	NEWBERG	MN 0	PACIFIC HY 99W	CN		TRF SIGNAL	N	WET	ANGL		PRVTE	W -E									000		00
						9P	NEWBERG UA	22.05	SPRINGBROOK RD	03	0		N	DARK	INJ		PSNGR CAR		01	DRVR	NONE	17	F	OR-Y		021	000		03
																									OR<25				
																02	NONE 0	STRGHT											
																	PRVTE	N -S									000		00
																	PSNGR CAR		01	DRVR	INJC	63	M	OR-Y		000	000		00
																									OR<25				
00922	N	N	N	N	N	10/15/2012	YAMHILL	1 14		INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 0	STRGHT											02
CITY						MO	NEWBERG	MN 0	PACIFIC HY 99W	CN		TRF SIGNAL	N	WET	ANGL		PRVTE	W -E									000		00
						7P	NEWBERG UA	22.05	SPRINGBROOK RD	03	2		N	DARK	PDO		PSNGR CAR		01	DRVR	NONE	65	M	OR-Y		028	000		02
																									OR<25				
																02	NONE 0	STRGHT											
																	PRVTE	N -S									015		00
																	PSNGR CAR		01	DRVR	NONE	56	M	OR-Y		000	000		00
																									OR<25				
01182	N	N	N			12/03/2010	YAMHILL	1 14		INTER	CROSS	N	N	CLR	S-OTHER	01	NONE	TURN-L											05
NO RPT						FR	NEWBERG	MN 0	PACIFIC HY 99W	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	N -E									000		00
						2P	NEWBERG UA	22.05	SPRINGBROOK RD	04	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	64	M	OR-Y		080	000		05
																									OR<25				
																02	NONE 0	TURN-L											
																	PRVTE	N -E									000		00
																	PSNGR CAR		01	DRVR	NONE	44	F	OR-Y		000	000		00
																									OR<25				
00894	Y	N	N	N	N	11/02/2011	YAMHILL	1 14		STRGHT		N	N	FOG	S-1STOP	01	NONE 0	STRGHT											32,01
CITY						WE	NEWBERG	MN 0	PACIFIC HY 99W	S	(RSDMD)	UNKNOWN	N	WET	REAR		PRVTE	SW-NE									000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	SPEED	ALC	DRUGS	SCHL	WORK	DAY / TIME	COUNTY / CITY / URBAN AREA	RD# FC / COMPNT / MLG TYP / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
						8A	NEWBERG UA	22.07	SPRINGBROOK RD	05	(04)		N	DAWN	INJ		PSNGR CAR		01	DRVR	NONE	50 F	OR-Y OR<25		052,047,026	000		32,01
																02	NONE 0 PRVTE	STOP SW-NE								011		00
																	PSNGR CAR		01	DRVR	INJC	40 F	OR-Y OR>25		000	000		00
80153 NONE	N	N	N			01/12/2010 TU 8P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.09	PACIFIC HY 99W SPRINGBROOK RD	STRGHT NE 03	(RSDMD) (04)	N UNKNOWN	N N N	RAIN WET DLIT	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	00 M	OR-Y OR<25		026	000 000		07 00 07
																02	NONE 0 PRVTE	STOP NE-SW								011		00
																	PSNGR CAR		01	DRVR	NONE	74 F	OR-Y OR<25		000	000		00
00037 NONE	N	N	N			01/06/2009 TU 4P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.10	PACIFIC HY 99W SPRINGBROOK RD	STRGHT SW 06	(NONE) (04)	N UNKNOWN	N N N	CLR DRY DAY	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT SW-NE	01	DRVR	NONE	19 M	OR-Y OR<25		016,026	000 000		27,07 00 27,07
																02	NONE 0 PRVTE	STOP SW-NE								011		00
																	PSNGR CAR		01	DRVR	NONE	52 M	OR-Y OR<25		000	000		00
00818 NO RPT	N	N	N			09/29/2010 WE 2P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.11	PACIFIC HY 99W SPRINGBROOK RD	ALLEY SW 01	(NONE) (04)	N NONE	Y N N	CLR DRY DAY	BIKE ANGL INJ	01	NONE PRVTE PSNGR CAR	TURN-R NW-SW	01	DRVR	NONE	52 F	OR-Y OR<25		027	000 000		02 00 02
																		- STRGHT NE SW	01	BIKE	INJB	18 M		SIDEWK	000	000		00
00662 CITY	N	N	N	N	N	08/05/2012 SU 3P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.12	PACIFIC HY 99W SPRINGBROOK RD	STRGHT UN 07	(NONE) (04)	N NONE	N N Y	CLR DRY DAY	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	58 M	OR-Y OR<25		026	000 000		07 00 07
																02	NONE 0 PRVTE	STOP NE-SW								011		00
																	PSNGR CAR		01	DRVR	INJC	45 M	OR-Y OR<25		000	000		00
00362 NO RPT	N	N	N			04/20/2012 FR 1P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.12	PACIFIC HY 99W SPRINGBROOK RD	ALLEY SW 05	(NONE) (04)	N NONE	N N N	CLD WET DAY	ANGL-OTH TURN PDO	01	NONE 0 PRVTE PSNGR CAR	TURN-L N -NE	01	DRVR	NONE	34 F	OR-Y OR>25		028	000 000		02 00 02
																02	NONE 0 PRVTE	STRGHT SW-NE								000		00
																	PSNGR CAR		01	DRVR	NONE	62 M	OR-Y OR<25		000	000		00
00727 CITY	N	N	N	N	N	09/17/2009 TH 11A	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.12	PACIFIC HY 99W DEBORAH ST	ALLEY SW 06	(NONE)	N NONE	N N N	CLR DRY DAY	ANGL-OTH TURN INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT SW-NE	01	DRVR	NONE	19 F	OR-Y		000	000 000		02 00 00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	SPE	ALG	DRU	CHK	SLK	WRO	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# FC / COMPNT / MLG TYP / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / INJ / SVRTY	A G E	S X	LICNS / RES / LOC	PED ERROR	ACT	EVENT	CAUSE
												(04)					01	NONE 0 PRVTE PSNGR CAR	STRGHT SW-NE	02	PSNG INJB	40 F		OR<25 000 000	000		00 00
																	02	NONE 0 PRVTE PSNGR CAR	TURN-L S -SW	01	DRVR INJC	24 F	OR-Y OR<25	028	018 000		00 02
90179 CITY	N	N	N	N	N		03/09/2013 SA 1P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.12	PACIFIC HY 99W SPRINGBROOK RD	STRGHT W 08	(NONE) (04)	N NONE	Y N N	CLR DRY DAY	FIX OBJ FIX INJ	01	NONE 0 PRVTE PSNGR CAR	TURN-L NE-S	01	DRVR INJC	23 F	OR-Y OR<25	081	058 000	058	16 00 16
01033 NONE	N	N	N				11/24/2010 WE 1P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.14	PACIFIC HY 99W DEBORAH ST	STRGHT NE 06	(NONE) (04)	N UNKNOWN	N N N	CLR DRY DAY	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT SW-NE	01	DRVR NONE	52 F	OR-Y OR<25	026	000		07 00 07
																	02	NONE 0 PRVTE PSNGR CAR	STOP S -N	01	DRVR NONE	60 M	OR-Y OR>25	026	011 000		00 07
00510 NO RPT	N	N	N				06/27/2010 SU 7P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.14	DEBORAH ST PACIFIC HY 99W	STRGHT E 07	(NONE) (04)	N TRF SIGNAL	N N N	CLR DRY DAY	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT S -N	01	DRVR NONE	39 F	OR-Y OR<25	000	000		00
																	02	NONE 0 PRVTE PSNGR CAR	STOP S -N	01	DRVR NONE	36 F	OR-Y OR<25	026	011 000		00 07
00341 NONE	N	N	N				05/04/2010 TU 1P	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.15	PACIFIC HY 99W SPRINGBROOK RD	STRGHT W 08	(NONE) (04)	N UNKNOWN	N N N	CLR DRY DAY	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT W -E	02	PSNG INJC	05 M		000	000		00
																	02	NONE 0 PRVTE PSNGR CAR	STOP W -E	01	DRVR NONE	28 F	OTH-Y OR<25	000	011 000		00 00
00697 NONE	N	N	N				08/08/2012 WE 7A	YAMHILL NEWBERG NEWBERG UA	1 14 MN 0 22.15	PACIFIC HY 99W SPRINGBROOK RD	STRGHT W 08	(NONE) (04)	N UNKNOWN	N N N	CLR DRY DAY	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT W -E	01	DRVR NONE	00 M	UNK UNK	026	000		07 00 07
																	02	NONE 0 PRVTE PSNGR CAR	STOP W -E	01	DRVR INJC	48 F	OR-Y OR<25	000	011 000		00 00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	SPE	ALG	DRS	CHL	WOR	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# / COMPNT / MLG / MILEPNT	FC / TYP	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
01233	N	N	Y			10/03/2012	YAMHILL	1 14			ALLEY		N	Y	CLR	PED	01	NONE 0	TURN-R										107,001	02
NO RPT						WE	NEWBERG	MN 0		PACIFIC HY 99W	NE	(NONE)	UNKNOWN	N	DRY	PED		PRVTE	N -SW									018		00
						2P	NEWBERG UA	22.16		DEBORAH ST	01	(04)		N	DAY	FAT		PSNGR CAR		01	DRVR	NONE	19	F	OR-Y OR<25		029	026		02
																			- STRGHT SW NE	01	CONV	KILL	70	F		SIDEWK	000	088	107,001	00
00748	N	N	N			08/22/2013	YAMHILL	1 14			STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT											27
NONE						TH	NEWBERG	MN 0		DEBORAH ST	NE	(NONE)	TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						4P	NEWBERG UA	22.18		PACIFIC HY 99W	05	(04)		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	67	M	OR-Y OR<25		026	000		07
																	02	NONE 0	STOP											
																		PRVTE	SW-NE									011		00
																		PSNGR CAR		01	DRVR	INJB	57	M	OR-Y OR<25		000	000		00
00606	N	N	N	N	N	07/17/2010	YAMHILL	1 14			ALLEY		N	Y	CLR	BIKE	01	NONE 0	TURN-R										006,083	02
CITY						SA	NEWBERG	MN 0		DEBORAH ST	E	(NONE)	NONE	N	DRY	OTH		PRVTE	S -E									018	006	00
						3P	NEWBERG UA	22.18		PACIFIC HY 99W	07	(04)		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	59	M	OR-Y OR<25		027	000	083	02
																			- STRGHT E W	01	BIKE	INJC	22	M		SIDEWK	000	000		00
00233	N	N	N			03/13/2012	YAMHILL	1 14			INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NO RPT						TU	NEWBERG	MN 0		DEBORAH ST	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000		00
						4P	NEWBERG UA	22.19		PACIFIC HY 99W	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	31	M	OR-Y OR<25		026	000		07
																	02	NONE 0	STOP											
																		PRVTE	W -E									011		00
																		PSNGR CAR		01	DRVR	INJC	39	M	OR-Y OR<25		000	000		00
																	02	NONE 0	STOP											
																		PRVTE	W -E									011		00
																		PSNGR CAR		02	PSNG	INJC	35	F			000	000		00
																	02	NONE 0	STOP											
																		PRVTE	W -E									011		00
																		PSNGR CAR		03	PSNG	INJC	18	F			000	000		00
00319	N	N	N			04/15/2012	YAMHILL	1 14			INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT										013	02
CITY						SU	NEWBERG	MN 0		DEBORAH ST	CN		STOP SIGN	N	DRY	ANGL		PRVTE	S -N									000	013	00
						3P	NEWBERG UA	22.19		PACIFIC HY 99W	01	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	20	F	OR-Y OR<25		026	000		07
																	02	NONE 0	STRGHT											
																		PRVTE	W -E									000		00
																		PSNGR CAR		01	DRVR	NONE	18	F	OR-Y OR<25		000	000		00
																	03	NONE 0	STRGHT											

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

091: PACIFIC HIGHWAY WEST

Highway 091 ALL ROAD TYPES, MP 21.70 to 22.20 01/01/2009 to 12/31/2013, Both Add and Non-Add mileage

Total crash records: 133

SER# / INVEST	SPEED	ALCHL	DRGHT	SCHL	WORK	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# FC / COMPNT / MLG TYP / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT EVENT	CAUSE
																	PRVTE	W -E								000	00
																	PSNGR CAR		01	DRVR / NONE	70	M	OR-Y OR<25		000	000	00
																04	NONE 0	STRGHT									
																	PRVTE	S -N								000	00
																	PSNGR CAR		01	DRVR / INJC	49	F	OR-Y OR<25		000	000	00
00986	N	N	N			11/15/2010	YAMHILL	1 14		STRGHT		N	N	RAIN	S-1STOP	01	NONE 0	STRGHT									07
NO RPT						MO	NEWBERG	MN 0	PACIFIC HY 99W	NE	(NONE)	UNKNOWN	N	WET	REAR		PRVTE	NE-SW								000	00
						5P	NEWBERG UA	22.20	DEBORAH ST	04 (04)			N	DLIT	PDO		PSNGR CAR		01	DRVR / NONE	36	M	OR-Y OR<25		026	000	07
																02	NONE 0	STOP									
																	PRVTE	NE-SW								011	00
																	PSNGR CAR		01	DRVR / NONE	40	F	OR-Y OR<25		000	000	00
01032	N	N	N			11/24/2010	YAMHILL	1 14		STRGHT		N	N	CLR	S-1TURN	01	NONE 0	U-TURN									08
NO RPT						WE	NEWBERG	MN 0	PACIFIC HY 99W	NE	(NONE)	L-TURN REF	N	DRY	TURN		PRVTE	NE-NE								000	00
						5P	NEWBERG UA	22.20	DEBORAH ST	04 (05)			N	DLIT	PDO		PSNGR CAR		01	DRVR / NONE	19	F	OR-Y OR<25		008	000	08
																02	NONE 0	STRGHT									
																	PRVTE	NE-SW								000	00
																	PSNGR CAR		01	DRVR / NONE	39	M	OR-Y OR<25		000	000	00
01121	Y	N	N	N	N	12/13/2013	YAMHILL	1 14		STRGHT		N	N	CLD	S-STRGHT	01	NONE 0	STRGHT								013	01,27
STATE						FR	NEWBERG	MN 0	PACIFIC HY 99W	E	(NONE)	TRF SIGNAL	N	WET	REAR		PRVTE	SW-NE								022	00
						11A	NEWBERG UA	22.20	DEBORAH ST	06 (04)			N	DAY	INJ		PSNGR CAR		01	DRVR / NONE	20	F	NONE OR<25	016	038		01,27
																02	NONE 0	STRGHT									
																	PRVTE	SW-NE								022 013	00
																	PSNGR CAR		01	DRVR / INJC	78	F	OR-Y OR>25	000	000		00
																03	NONE 0	STOP									
																	PRVTE	SW-NE								011	00
																	PSNGR CAR		01	DRVR / NONE	48	F	OR-Y OR<25	000	000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

SPRINGBROOK RD and Intersectional Crashes at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2013														
ANGLE	0	0	1	1	0	0	0	1	0	1	0	1	0	0
FIXED / OTHER OBJECT	1	0	2	3	1	0	0	2	1	2	1	1	0	3
REAR-END	0	10	5	15	0	14	0	10	4	13	2	15	0	0
TURNING MOVEMENTS	0	2	1	3	0	3	0	3	0	2	1	3	0	0
YEAR 2013 TOTAL	**1**	**12**	**9**	**22**	**1**	**17**	**0**	**16**	**5**	**18**	**4**	**20**	**0**	**3**
YEAR: 2012														
ANGLE	0	1	1	2	0	1	0	0	2	0	2	2	0	0
BACKING	0	0	1	1	0	0	0	0	1	1	0	0	0	0
PEDESTRIAN	0	2	0	2	0	2	0	2	0	2	0	2	0	0
REAR-END	0	8	7	15	0	12	0	10	5	12	3	14	0	0
TURNING MOVEMENTS	0	3	6	9	0	3	0	3	5	5	4	8	0	0
YEAR 2012 TOTAL	**0**	**14**	**15**	**29**	**0**	**18**	**0**	**15**	**13**	**20**	**9**	**26**	**0**	**0**
YEAR: 2011														
REAR-END	0	2	14	16	0	2	0	11	3	14	2	16	0	0
SIDESWIPE - OVERTAKING	0	0	1	1	0	0	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR 2011 TOTAL	**0**	**2**	**16**	**18**	**0**	**2**	**0**	**13**	**3**	**16**	**2**	**18**	**0**	**0**
YEAR: 2010														
ANGLE	0	0	1	1	0	0	0	1	0	1	0	1	0	0
REAR-END	0	5	5	10	0	8	0	5	5	7	3	10	0	0

SPRINGBROOK RD and Intersectional Crashes at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
TURNING MOVEMENTS	0	3	3	6	0	3	1	4	2	5	1	6	0	0
YEAR 2010 TOTAL	**0**	**8**	**9**	**17**	**0**	**11**	**1**	**10**	**7**	**13**	**4**	**17**	**0**	**0**
YEAR: 2009														
ANGLE	0	2	1	3	0	2	0	3	0	3	0	3	0	0
FIXED / OTHER OBJECT	0	0	2	2	0	0	0	1	1	2	0	0	0	2
REAR-END	0	7	5	12	0	9	0	9	2	11	1	12	0	0
TURNING MOVEMENTS	0	1	2	3	0	1	0	3	0	1	2	3	0	0
YEAR 2009 TOTAL	**0**	**10**	**10**	**20**	**0**	**12**	**0**	**16**	**3**	**17**	**3**	**18**	**0**	**2**
FINAL TOTAL	**1**	**46**	**59**	**106**	**1**	**60**	**1**	**70**	**31**	**84**	**22**	**99**	**0**	**5**

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and Intersectional Crashes at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 106

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL BUS	WORK ZONE	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00624	N	N	N			07/19/2013	19	SPRINGBROOK RD	STRGHT		N	Y	CLR	FIX OBJ	01	NONE	STRGHT										061	05
NO RPT						FR		00000	UN	(NONE)	UNKNOWN	N	DRY	FIX		PRVTE	N -S									000	061	00
						1P			01			N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	56	F	OR-Y		081,083	000		05
										(02)													OR<25					
															02	NONE 0	STRGHT											
																PUBLC	S -N									000		00
																OTHER		01	DRVR	NONE	42	M	OR-Y		000	000		00
																							OR<25					
00109	N	N	N			02/12/2013	17	CRESTVIEW DR	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	STRGHT											07
NONE						TU	0	SPRINGBROOK RD	S		YIELD	Y	DRY	REAR		PRVTE	S -N									000		00
						9P			06	0		N	DARK	PDO		PSNGR CAR		01	DRVR	NONE	21	M	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	S -N									011		00
																PSNGR CAR		01	DRVR	NONE	46	M	OR-Y		000	000		00
																							OR<25					
00762	Y	N	N	N	N	09/01/2013	16	CRESTVIEW DR	INTER	CROSS	N	Y	CLR	FIX OBJ	01	NONE 0	STRGHT										040,001	01
CITY						SU	0	SPRINGBROOK RD	S		UNKNOWN	Y	DRY	FIX		PRVTE	N -S									000	040	00
						1P			05	4		N	DAY	FAT		MTRCYCLE		01	DRVR	KILL	72	F	OR-Y		047,081	000	001	01
																							OR<25					
00992	N	N	N	N	N	11/17/2010	16	CRESTVIEW DR	INTER	CROSS	N	N	RAIN	S-STRGHT	01	NONE 0	STRGHT											07
CITY						WE	0	SPRINGBROOK RD	CN		REG-SIGN	Y	WET	REAR		PRVTE	S -N									000		00
						7P			04	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	67	M	OR-Y		043	000		07
																							OR<25					
															02	NONE 0	STRGHT											
																PRVTE	S -N									000		00
																PSNGR CAR		01	DRVR	NONE	40	F	OR-Y		000	000		00
																							OR<25					
01160	Y	N	N	N	N	12/19/2013	19	SPRINGBROOK RD	STRGHT		N	Y	CLR	FIX OBJ	01	NONE 0	STRGHT										124,015,100	01
CITY						TH	800	CRESTVIEW DR	N	(RSDMD)	WW W/ GATE	N	ICE	FIX		PRVTE	N -S									000	124,100	00
						6A			08			N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	30	F	OR-Y		047,080	017		01
										(02)													OR<25					
00787	N	N	N	N	N	09/18/2010	16	FERNWOOD RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											32,07
CITY						SA	0	SPRINGBROOK RD	N		TRF SIGNAL	N	WET	REAR		PRVTE	N -S									000		00
						1P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	28	F	OR-Y		052,026	000		32,07
																							OR<25					
															01	NONE 0	STRGHT											
																PRVTE	N -S									000		00
																PSNGR CAR		02	PSNG	NO<5	01	F			000	000		00
															02	NONE 0	STOP											
																PRVTE	N -S									011		00
																PSNGR CAR		01	DRVR	INJC	45	F	OR-Y		000	000		00
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	N -S									011		00
																PSNGR CAR		02	PSNG	INJB	11	M			000	000		00
00913	N	N	N	N	N	11/24/2009	14	HILLSBORO-SILV HY	INTER	3-LEG	N	N	CLD	S-1STOP	01	NONE 0	STRGHT											07
CITY						TU		SPRINGBROOK RD	UN		TRF SIGNAL	N	DRY	REAR		PRVTE	E -W									000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and Intersectional Crashes at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 106

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL BUS	WORK ZONE	DAY OF WEEK / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
						3P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	62	M	OR-Y OR<25		026	000		07
															02	NONE 0 PRVTE	STOP E -W									011		00
																PSNGR CAR		01	DRVR	INJC	30	M	OR-Y OR<25		000	000		00
00706 NONE	N	N	N			08/30/2010 MO 5P	14	HILLSBORO-SILV HY SPRINGBROOK RD	INTER S 06	CROSS 0	N TRF SIGNAL	N N N	CLR DRY DAY	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT S -N	01	DRVR	NONE	48	F	OR-Y OR<25		026	000 000	006	07 00 07
															02	NONE PRVTE	STOP S -N									011	006	00
																PSNGR CAR		01	DRVR	INJC	44	F	OR-Y OR<25		000	000		00
00242 NONE	N	N	N			04/20/2009 MO 1P	16 0	HAWORTH AVE SPRINGBROOK RD	INTER N 06	3-LEG 0	N STOP SIGN	N N N	CLR DRY DAY	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT N -S	01	DRVR	NONE	20	M	OR-Y OR<25		026	000 000		07 00 07
															02	NONE 0 PRVTE	STOP N -S									011		00
																PSNGR CAR		01	DRVR	INJC	51	F	OR-Y OR<25		000	000		00
00274 CITY	N	N	N	N	N	03/27/2012 TU 2P	17 0	HAWORTH AVE SPRINGBROOK RD	INTER N 06	CROSS 0	N STOP SIGN	N N N	CLR DRY DAY	PED PED INJ	01	NONE 0 PRVTE PSNGR CAR	TURN-L E -S	01	DRVR	NONE	33	M	OR-Y OR<25		029	000 000		02 00 02
																	- STRGHT N S	01	CONV	INJB	53	M		I XWLK	000	000		00
00286 NONE	N	N	N			03/31/2012 SA 4P	17 0	HAWORTH AVE SPRINGBROOK RD	INTER S 06	CROSS 0	N UNKNOWN	N N N	CLR DRY DAY	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT S -N	01	DRVR	NONE	32	F	OR-Y OR<25		026	000 000		07 00 07
															02	NONE 0 PRVTE	STOP S -N									011		00
																PSNGR CAR		01	DRVR	NONE	17	F	OR-Y OR<25		000	000		00
00018 STATE	N	N	N	N	N	01/05/2009 MO 11A	16 0	HAWORTH AVE SPRINGBROOK RD	INTER CN 01	3-LEG 0	N STOP SIGN	N N N	CLD DRY DAY	ANGL-OTH ANGL PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT N -S	01	DRVR	NONE	54	M	OR-Y OR<25		021	000 000		03 00 03
															02	NONE 0 PRVTE	STRGHT W -E									000		00
																PSNGR CAR		01	DRVR	NONE	59	M	OR-Y OR>25		000	000		00
00910 NONE	N	N	N			11/21/2009 SA 5P	16 0	HAWORTH AVE SPRINGBROOK RD	INTER CN 04	CROSS 0	N STOP SIGN	N N N	CLR DRY DUSK	ANGL-OTH TURN PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT W -E	01	DRVR	NONE	58	F	OR-Y OR<25		028	000 000		02 00 02
															02	NONE 0	TURN-L											

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and Intersectional Crashes at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 106

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL	WORK	DAY OF WEEK / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
																PRVTE	S -W									000		00
																PSNGR CAR		01	DRVR	NONE	23	F	OR-Y OR<25		000	000		00
00013	N	N	N	N	N	01/17/2010	16	HAWORTH AVE	INTER	3-LEG	N	N	CLD	ANGL-OTH	01	NONE 0	STRGHT												03
CITY						SU	0	SPRINGBROOK RD	CN		STOP SIGN	N	SNO	TURN		PRVTE	N -S									015		00
						6P			03	0		N	DARK	PDO		PSNGR CAR		01	DRVR	NONE	48	M	OR-Y OR<25		021	000		03
															02	NONE 0	STRGHT											
																PRVTE	W -E									015		00
																PSNGR CAR		01	DRVR	NONE	30	M	OR-Y OR<25		000	000		00
00267	N	N	N			04/08/2010	16	HAWORTH AVE	INTER	3-LEG	N	N	CLR	O-1TURN	01	NONE 0	STRGHT												03
NO RPT						TH	0	SPRINGBROOK RD	CN		STOP SIGN	N	DRY	TURN		PRVTE	N -S									000		00
						11A			01	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	30	M	OR-Y OR<25		021	000		03
															02	NONE 0	TURN-L											
																PRVTE	S -W									000		00
																PSNGR CAR		01	DRVR	INJC	19	M	OR-Y OR<25		000	000		00
00971	N	N	N	N	N	11/09/2010	16	HAWORTH AVE	INTER	3-LEG	N	N	RAIN	O-1TURN	01	NONE 0	STRGHT											013	02
CITY						TU	0	SPRINGBROOK RD	CN		STOP SIGN	N	WET	TURN		PRVTE	N -S									000		00
						1P			01	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	62	F	OR-Y OR<25		000	000		00
															02	NONE 0	TURN-L											
																PRVTE	S -W									000	013	00
																PSNGR CAR		01	DRVR	NONE	34	M	NONE OR<25		004	000		02
															02	NONE 0	TURN-L											
																PRVTE	S -W									000	013	00
																PSNGR CAR		02	PSNG	INJB	36	F			000	000		00
															03	NONE 0	STOP											
																PRVTE	W -E									011		00
																PSNGR CAR		01	DRVR	NONE	65	F	OR-Y OR<25		000	000		00
01146	N	N	N			12/25/2010	16	HAWORTH AVE	INTER	3-LEG	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT												03
NO RPT						SA	0	SPRINGBROOK RD	CN		STOP SIGN	N	DRY	ANGL		PRVTE	N -S									000		00
						2P			03	0		Y	DAY	PDO		PSNGR CAR		01	DRVR	NONE	18	M	OTH-Y N-RES		021	000		03
															02	NONE 0	STRGHT											
																PRVTE	W -E									018		00
																PSNGR CAR		01	DRVR	NONE	35	M	OR-Y OR<25		000	000		00
00505	N	N	N			06/17/2013	17	HAWORTH AVE	INTER	3-LEG	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT												02
NO RPT						MO	0	SPRINGBROOK RD	CN		STOP SIGN	N	DRY	TURN		PRVTE	N -S									000		00
						2P			03	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	77	M	OR-Y OR<25		028	000		02
															02	NONE 0	TURN-R											
																PRVTE	W -S									000		00
																PSNGR CAR		01	DRVR	NONE	78	F	OR-Y OR<25		000	000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and Intersectional Crashes at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 106

SER# / INVEST	S P E D	A L C	D R S L	S W U G S	C O H R K	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00578	N	N	N			07/05/2013	17	HAWORTH AVE	INTER	3-LEG	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT											02
NO RPT						FR	0	SPRINGBROOK RD	CN		STOP SIGN	N	DRY	ANGL		PRVTE	W -E									000		00
						4P			04	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	58	F	OR-Y		028	000		02
																							OR<25					
															01	NONE 0	STRGHT											
																PRVTE	W -E									000		00
																PSNGR CAR		02	PSNG	NO<5	04	M			000	000		00
															02	NONE 0	STRGHT											
																PRVTE	S -N									000		00
																PSNGR CAR		01	DRVR	NONE	75	F	OR-Y		000	000		00
																							OR<25					
01092	N	N	N			11/26/2012	16	SPRINGBROOK RD	STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						MO	200	HAWORTH AVE	N	(NONE)	UNKNOWN	N	DRY	REAR		PRVTE	N -S									000		00
						7A			08			N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	67	M	OR-Y		026	000		07
										(02)													OR<25					
															02	NONE 0	STOP											
																PRVTE	N -S									011		00
																PSNGR CAR		01	DRVR	INJC	41	M	OR-Y		000	000		00
																							OR<25					
00830	N	N	N	N	N	09/23/2013	16	HAYES ST	INTER	3-LEG	N	N	CLD	S-1STOP	01	NONE 0	STRGHT											07
CITY						MO	0	SPRINGBROOK RD	N		TRF SIGNAL	N	SNO	REAR		PRVTE	N -S									000		00
						8A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	48	F	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	N -S									011		00
																PSNGR CAR		01	DRVR	INJC	37	F	OR-Y		000	000		00
																							OR<25					
00408	N	N	N			05/16/2013	17	MOUNTAINVIEW DR	INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NO RPT						TH	0	SPRINGBROOK RD	E		STOP SIGN	N	WET	REAR		PRVTE	E -W									000		00
						2P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	19	F	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	E -W									011		00
																PSNGR CAR		01	DRVR	NONE	51	F	OR-Y		000	000		00
																							OR<25					
01090	N	N	N			11/28/2012	17	MOUNTAINVIEW DR	INTER	3-LEG	N	N	CLR	ANGL-OTH	01	NONE 0	TURN-L											02
NONE						WE	0	SPRINGBROOK RD	CN		STOP SIGN	N	WET	TURN		PRVTE	NE-SE									015		00
						6A			03	0		N	DARK	PDO		PSNGR CAR		01	DRVR	NONE	00	M	OR-Y		002	000		02
																							OR<25					
															02	NONE 0	STRGHT											
																PRVTE	NW-SE									000		00
																PSNGR CAR		01	DRVR	NONE	22	M	OR-Y		000	000		00
																							OR<25					
00964	Y	N	N			12/25/2009	17	SPRINGBROOK RD	STRGHT		N	Y	CLR	FIX OBJ	01	NONE 0	STRGHT										124,040	01
NO RPT						FR	20	MOUNTAINVIEW DR	N	(NONE)	UNKNOWN	N	ICE	FIX		PRVTE	N -S									000	124,040	00
						10A			05			N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	35	F	OR-Y		047,080,081	017		01
										(02)													OR>25					
00021	N	N	N			01/12/2009	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-STRGHT	01	NONE 0	STRGHT											07
NO RPT						MO		SPRINGBROOK RD	UN		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and Intersectional Crashes at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 106

SER# / INVEST	SPEED	ALC	DRUGS	SCHL BUS	WORK ZONE	DAY OF WEEK / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
						8P			06	2		N	DARK	INJ		PSNGR CAR		01	DRVR	INJB	61	M	OR-Y OR<25		042	000	07
															02	NONE 0 PRVTE	STRGHT NE-SW									000	00
																PSNGR CAR		01	DRVR	NONE	26	F	OR-Y OR<25		000	000	00
00029 CITY	N	N	N	N	N	01/10/2012 TU 3P	14	PACIFIC HY 99W SPRINGBROOK RD	INTER UN 05	CROSS 0	N TRF SIGNAL	N N N	CLR DRY DAY	PED PED INJ	01	NONE 0 PRVTE	TURN-R W -S									000	02 00 02
																PSNGR CAR		01	DRVR	NONE	71	F	OR-Y OR<25		029	026	02
																	- STRGHT W E	01	PED	INJB	14	F		I XWLK	000	035	00
00319 CITY	N	N	N	N	N	04/18/2013 TH 8P	14	PACIFIC HY 99W SPRINGBROOK RD	INTER UN 05	CROSS 0	N TRF SIGNAL	N N N	CLR DRY DARK	S-OTHER TURN INJ	01	NONE 0 PRVTE	TURN-L N -E									000	05 00 05
																PSNGR CAR		01	DRVR	NONE	69	M	OR-Y OR<25		080	000	05
															02	NONE 0 PRVTE	TURN-L N -E									000	00
																PSNGR CAR		01	DRVR	NONE	42	M	OR-Y OR<25		000	000	00
															02	NONE 0 PRVTE	TURN-L N -E									000	00
																PSNGR CAR		02	PSNG	INJC	41	F			000	000	00
															02	NONE 0 PRVTE	TURN-L N -E									000	00
																PSNGR CAR		03	PSNG	INJC	12	F			000	000	00
01068 NO RPT	N	N	N			11/07/2011 MO 7A	16 0	PACIFIC HY 99W SPRINGBROOK RD	INTER N 06	CROSS 0	N TRF SIGNAL	N N N	CLR WET DAY	S-1STOP REAR PDO	01	NONE 0 PUBLC SCHL BUS	STRGHT N -S	01	DRVR	NONE	00	Unk	UNK UNK		026	000	07
															02	NONE 0 PRVTE	STOP N -S									011	00
																PSNGR CAR		01	DRVR	NONE	51	F	OR-Y OR<25		000	000	00
00322 NONE	N	N	N			04/15/2009 WE 5P	14	PACIFIC HY 99W SPRINGBROOK RD	INTER NE 06	CROSS 0	N TRF SIGNAL	N N N	CLR DRY DAY	S-1STOP REAR PDO	01	NONE 0 PRVTE	STRGHT NE-SW									000	07 00 07
																PSNGR CAR		01	DRVR	NONE	00	M	OR-Y OR<25		026	000	07
															02	NONE 0 PRVTE	STOP NE-SW									011	00
																PSNGR CAR		01	DRVR	NONE	71	M	OR-Y OR<25		000	000	00
00489 NO RPT	N	N	N			06/30/2009 TU 3P	14	PACIFIC HY 99W SPRINGBROOK RD	INTER NE 06	CROSS 0	N TRF SIGNAL	N N N	UNK UNK DAY	S-1STOP REAR PDO	01	NONE 0 PRVTE	STRGHT NE-SW									000	07 00 07
																PSNGR CAR		01	DRVR	NONE	30	F	UNK OR<25		026	000	07
															02	NONE 0	STOP										

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and Intersectional Crashes at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 106

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL BUS	WORK ZONE	DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
																PRVTE	NE-SW										011		00
																PSNGR CAR		01	DRVR	NONE	34	M	OTH-Y N-RES		000	000		00
00578 NO RPT	N	N	N			07/13/2009 MO 11A	14	PACIFIC HY 99W SPRINGBROOK RD	INTER NE 06	CROSS 0	N TRF SIGNAL	N N N	CLR DRY DAY	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	33	F	OR-Y OR<25		026	000	013	07
																											000		00
																		01	DRVR	NONE	33	F	OR-Y OR<25		026	000		07
															02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW										011	013	00
																		01	DRVR	NONE	35	F	OR-Y OR<25		000	000		00
															03	NONE 0 PRVTE PSNGR CAR	STOP NE-SW										011		00
																		01	DRVR	NONE	00	Unk	UNK UNK		000	000		00
00065 NONE	N	N	N			01/05/2010 TU 7P	14	PACIFIC HY 99W SPRINGBROOK RD	INTER NE 09	CROSS 2	N YIELD	N N N	RAIN WET DARK	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	TURN-R E -N	01	DRVR	NONE	55	M	OR-Y OR<25		026,016	000		27,07
																											000		00
																		01	DRVR	NONE	55	M	OR-Y OR<25		026,016	000		27,07
															02	NONE 0 PRVTE PSNGR CAR	STOP E -N										011		00
																		01	DRVR	NONE	28	F	OR-Y OR<25		000	000		00
00870 NO RPT	N	N	N			10/13/2010 WE 3P	14	PACIFIC HY 99W SPRINGBROOK RD	INTER NE 06	CROSS 0	N TRF SIGNAL	N N N	CLR DRY DAY	S-1STOP REAR PDO	01	NONE PRVTE PSNGR CAR	STRGHT NE-SW											013	07
																											000		00
																		01	DRVR	NONE	37	F	OR-Y OR<25		026	000		07
															02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW										011	013	00
																		01	DRVR	NONE	68	M	OR-Y OR<25		000	000		00
															03	NONE 0 PRVTE PSNGR CAR	STOP NE-SW										011		00
																		01	DRVR	NONE	67	F	OR-Y OR<25		000	000		00
00516 NONE	N	N	N			07/07/2011 TH 8A	14	PACIFIC HY 99W SPRINGBROOK RD	INTER NE 06	CROSS 0	N TRF SIGNAL	N N N	UNK UNK DAY	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	00	M	OR-Y UNK		026	000		07
																											000		00
															02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW										011		00
																		01	DRVR	NONE	60	M	OR-Y OR<25		000	000		00
00692 NONE	N	N	N			08/26/2011 FR 3P	14	PACIFIC HY 99W SPRINGBROOK RD	INTER NE 06	CROSS 0	N TRF SIGNAL	N N N	CLR DRY DAY	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	39	M	OR-Y OR<25		026	000		07
																											000		00
															02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW										011		00
																		01	DRVR	NONE	25	F	OR-Y OR<25		000	000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and Intersectional Crashes at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 106

SER# / INVEST	S P E D	A L	R U G	S C	W O H	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
															02	NONE 0	STOP										
																PRVTE	NE-SW									011	00
																PSNGR CAR		02	PSNG	NO<5	02	F			000	000	00
															02	NONE 0	STOP										
																PRVTE	NE-SW									011	00
																PSNGR CAR		03	PSNG	NO<5	01	M			000	000	00
00732	N	N	N			09/11/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-STRGHT	01	NONE 0	STRGHT										13
NONE						SU		SPRINGBROOK RD	NE		TRF SIGNAL	N	DRY	SS-O		PRVTE	SW-NE									000	00
						7P			05	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y		045	000	13
																							OR<25				
															02	NONE 0	STRGHT										
																PRVTE	SW-NE									000	00
																PSNGR CAR		01	DRVR	NONE	31	F	OR-Y		000	000	00
																							OR<25				
01087	N	N	N			12/23/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	BACK										10
NONE						FR		SPRINGBROOK RD	NE		TRF SIGNAL	N	DRY	REAR		UNKN	SW-NE									000	00
						5P			06	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y		011	000	10
																							UNK				
															02	NONE 0	STOP										
																PRVTE	NE-SW									011	00
																PSNGR CAR		01	DRVR	NONE	25	F	OR-Y		000	000	00
																							OR<25				
00690	N	N	N			08/11/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1TURN	01	NONE 0	STRGHT										13
NO RPT						SA		SPRINGBROOK RD	NE		TRF SIGNAL	N	DRY	TURN		PRVTE	NE-SW									000	00
						11A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	24	F	OR-Y		045	000	13
																							OR<25				
															02	NONE 0	TURN-L										
																PRVTE	NE-S									000	00
																PSNGR CAR		01	DRVR	NONE	74	M	OR-Y		000	000	00
																							OR>25				
00851	N	N	N			09/28/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NO RPT						FR		SPRINGBROOK RD	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000	00
						2P			06	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	19	M	OR-Y		026	000	07
																							OR<25				
															02	NONE 0	STOP										
																PRVTE	NE-SW									011	00
																PSNGR CAR		01	DRVR	NONE	86	M	OR-Y		000	000	00
																							OR<25				
01210	N	N	N			12/27/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										27
NO RPT						TH		SPRINGBROOK RD	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000	00
						9P			06	2		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	30	F	OR-Y		016,026	038	27
																							OR<25				
															01	NONE 0	STRGHT										
																PRVTE	NE-SW									000	00
																PSNGR CAR		02	PSNG	NO<5	04	M			000	000	00
															02	NONE 0	STOP										
																PRVTE	NE-SW									011	00
																PSNGR CAR		01	DRVR	NONE	47	M	OR-Y		000	000	00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and Intersectional Crashes at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 106

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL	WORK	DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
																							OR<25					
00766	N	N	N			09/02/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NO RPT						MO		SPRINGBROOK RD	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000		00
						5P			06	1		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	22	F	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	NE-SW									011		00
																PSNGR CAR		01	DRVR	INJC	52	F	OR-Y		000	000		00
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	NE-SW									011		00
																PSNGR CAR		02	PSNG	INJC	17	F			000	000		00
00947	N	N	N			10/26/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	TURN-L											07
NONE						SA		SPRINGBROOK RD	NE		L-GRN-SIG	N	DRY	REAR		PRVTE	NE-S									000		00
						10A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	48	M	OR-Y		026	000		07
																							OR>25					
															02	NONE 0	STOP											
																PRVTE	NE-SW									012		00
																PSNGR CAR		01	DRVR	INJC	24	M	OR-Y		000	000		00
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	NE-SW									012		00
																PSNGR CAR		02	PSNG	INJC	23	F			000	000		00
00124	Y	N	N	N	N	02/19/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLD	ANGL-OTH	01	NONE 0	U-TURN											08,01
CITY						SA		SPRINGBROOK RD	E		TRF SIGNAL	N	DRY	TURN		PRVTE	E -E									000		00
						2P			05	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	32	M	OR-Y		008	000		08,01
																							OR<25					
															02	NONE 0	TURN-R											
																PRVTE	S -E									016		00
																PSNGR CAR		01	DRVR	NONE	17	M	OR-Y		000	000		00
																							OR<25					
00711	N	N	N	N	N	09/02/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	POLCE	STRGHT											07
CITY						FR		SPRINGBROOK RD	E		TRF SIGNAL	N	DRY	REAR		PRVTE	E -W									000		00
						4P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	39	M	OR-Y		026	000		07
																							OR<25					
															02	NONE 1	STOP											
																PRVTE	E -W									011		00
																PSNGR CAR		01	DRVR	NONE	41	F	OR-Y		000	000		00
																							OR<25					
00178	N	N	N			02/24/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						FR		SPRINGBROOK RD	E		TRF SIGNAL	N	DRY	REAR		PRVTE	E -W									000		00
						9P			06	2		N	DARK	PDO		PSNGR CAR		01	DRVR	NONE	50	M	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	E -W									011		00
																PSNGR CAR		01	DRVR	NONE	65	F	OR-Y		000	000		00
																							OR<25					
00125	N	N	N			02/19/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
CITY						TU		SPRINGBROOK RD	E		TRF SIGNAL	N	WET	REAR		PRVTE	E -W									000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and Intersectional Crashes at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 106

SER# / INVEST	SPE	ALC	DRS	SWC	HR	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
						7A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	25	F	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	E -W									011		00
																PSNGR CAR		01	DRVR	INJC	38	M	OR-Y		000	000		00
																							OR<25					
00667	N	N	N			07/31/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										013	32
CITY						WE		SPRINGBROOK RD	E		NONE	N	DRY	REAR		PRVTE	E -W									000		00
						3P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	59	M	OR-Y		052,026	000		32
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	E -W									011	013	00
																PSNGR CAR		01	DRVR	INJC	50	M	OR-Y		000	000		00
																							OR<25					
															03	NONE 0	STOP											
																PRVTE	E -W									011		00
																PSNGR CAR		01	DRVR	INJC	52	F	OR-Y		000	000		00
																							OR<25					
00845	N	N	N			09/26/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NO RPT						TH		SPRINGBROOK RD	E		TRF SIGNAL	N	WET	REAR		PRVTE	E -W									000		00
						5P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	23	F	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	E -W									011		00
																MTRCYCLE		01	DRVR	INJC	42	M	OR-Y		000	000		00
																							OR<25					
00745	N	N	N	N	N	09/25/2009	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	BIKE	01	NONE 0	TURN-R											02
CITY						FR		SPRINGBROOK RD	S		TRF SIGNAL	N	DRY	TURN		PRVTE	S -NE									016		00
						2P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	55	M	OR-Y		027	000		02
																							OR<25					
																- STRGHT SW NE		01	BIKE	INJC	33	M		I XWLK	000	035		00
01195	N	N	N			12/21/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	S-1STOP	01	POLCE 0	STRGHT											07
STATE						FR		SPRINGBROOK RD	S		TRF SIGNAL	N	WET	REAR		PUBLC	S -N									000		00
						9A			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	28	M	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	S -N									011		00
																PSNGR CAR		01	DRVR	INJC	35	F	OR-Y		000	000		00
																							OR<25					
00064	N	N	N	N	N	01/21/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						FR 0		SPRINGBROOK RD	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000		00
						4P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	S -N									011		00
																PSNGR CAR		01	DRVR	NONE	36	F	OR-Y		000	000		00
																							OR<25					
00790	N	N	N	N	N	09/30/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and Intersectional Crashes at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 106

SER# / INVEST	S P E D	A L C	R U G S	S C H L	W O R K	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
CITY						FR	0	SPRINGBROOK RD	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000		00
						3P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	32	F	OR-Y		026	000		07
																								OR<25					
															02	NONE 0	STOP											
																PRVTE	S -N									011		00
																PSNGR CAR		01	DRVR	NONE	31	F	OR-Y		000	000		00
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	S -N									011		00
																PSNGR CAR		02	PSNG	NO<5	02	F			000	000		00
00604	N	N	N			07/17/2012	16	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NONE						TU	0	SPRINGBROOK RD	S		TRF SIGNAL	N	WET	REAR		PRVTE	S -N									000		00
						11A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	UNK		026	000		07
																							UNK					
															02	NONE 0	STOP											
																PRVTE	S -N									011		00
																PSNGR CAR		01	DRVR	NONE	62	F	OR-Y		000	000		00
																							OR<25					
00066	N	N	N	N	N	01/20/2009	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											32,07
CITY						TU		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						10A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	32	M	OR-Y		052,026	000		32,07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	NONE	43	M	OTH-Y		000	000		00
																							N-RES					
00548	N	N	N			07/01/2009	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NO RPT						WE		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						11A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	22	M	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	INJC	28	M	OR-Y		000	000		00
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		02	PSNG	INJC	22	M			000	000		00
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		03	PSNG	NO<5	02	F			000	000		00
00743	N	N	N			09/25/2009	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
CITY						FR		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						1P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJA	29	F	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	INJC	42	M	OR-Y		000	000		00
																							OR<25					

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and Intersectional Crashes at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 106

SER# / INVEST	SPE	ALC	DRS GHT	SWC ORK	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00776	N	N	N N	N	10/21/2009	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT											33,07
CITY					WE		SPRINGBROOK RD	SW		TRF SIGNAL	N	SNO	REAR		PRVTE	SW-NE									000		00
					9A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	49	M	OR-Y OR<25		051,026	000		33,07
														02	NONE 0	STOP											
															PRVTE	SW-NE									011		00
															PSNGR CAR		01	DRVR	INJC	49	F	OR-Y OR<25		000	000		00
00826	N	N	N		10/08/2009	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											27,07
NONE					TH		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
					3P			06	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	76	F	OR-Y OR<25		016,026	000		27,07
														02	NONE 0	STOP											
															PRVTE	SW-NE									011		00
															PSNGR CAR		01	DRVR	NONE	31	M	OR-Y OR<25		000	000		00
86584	N	N	N		12/16/2009	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NO RPT					WE		SPRINGBROOK RD	SW		TRF SIGNAL	N	WET	REAR		PRVTE	SW-NE									000		00
					11A			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	71	M	OR-Y OR<25		026	000		07
														02	NONE 0	STOP											
															PRVTE	SW-NE									011		00
															PSNGR CAR		01	DRVR	INJC	54	F	OR-Y OR<25		000	000		00
00236	N	N	N		03/26/2010	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE					FR		SPRINGBROOK RD	SW		TRF SIGNAL	N	WET	REAR		PRVTE	SW-NE									000		00
					12P			06	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	59	M	OR-Y OR>25		014	000		07
														02	NONE 0	STOP											
															PRVTE	SW-NE									011		00
															PSNGR CAR		01	DRVR	NONE	21	F	OR-Y OR<25		000	000		00
00830	N	N	N		09/24/2010	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	STRGHT											07
NONE					FR		SPRINGBROOK RD	SW		UNKNOWN	N	DRY	REAR		PRVTE	SW-NE									000		00
					12P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	UNK OR<25		026	000		07
														02	NONE 0	STOP											
															PRVTE	SW-NE									011		00
															PSNGR CAR		01	DRVR	NONE	29	F	OR-Y OR<25		000	000		00
00961	N	N	N		11/05/2010	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NO RPT					FR		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
					2P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	35	F	OR-Y OR>25		014	000		07
														02	NONE 0	STOP											
															PRVTE	SW-NE									011		00
															PSNGR CAR		01	DRVR	INJC	38	M	OTH-Y N-RES		000	000		00
														02	NONE 0	STOP											
															PRVTE	SW-NE									011		00
															PSNGR CAR		02	PSNG	INJC	35	F			000	000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and Intersectional Crashes at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 106

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL ZN	WORK ZN	DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
01177	N	N	N			12/17/2010	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NO RPT						FR		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						4P			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	59	F	OR-Y		014	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	NONE	43	F	OR-Y		000	000		00
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		02	PSNG	INJC	43	M			000	000		00
01065	N	N	N			12/03/2010	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NONE						FR		SPRINGBROOK RD	SW		TRF SIGNAL	N	WET	REAR		PRVTE	SW-NE									000		00
						7P			06	2		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	15	F	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	INJC	17	F	OR-Y		000	000		00
																							OR<25					
00507	N	N	N			06/20/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										013	07
NO RPT						MO		SPRINGBROOK RD	SW		UNKNOWN	N	DRY	REAR		PRVTE	SW-NE									000		00
						3P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	59	F	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011	013	00
																PSNGR CAR		01	DRVR	NONE	51	M	OTH-Y		000	000		00
																							N-RES					
															03	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	NONE	31	F	OR-Y		000	000		00
																							OR<25					
01023	N	N	N			12/06/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						TU		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						2P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	UNK		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	NONE	72	M	OR-Y		000	000		00
																							OR<25					
01058	N	N	N			12/15/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT											07
NONE						TH		SPRINGBROOK RD	SW		TRF SIGNAL	N	WET	REAR		PRVTE	SW-NE									000		00
						8A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	25	M	OR-Y		026	000		07
																							OR>25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	NONE	40	M	OR-Y		000	000		00
																							OR<25					
00066	N	N	N			01/21/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	ANGL-STP	01	NONE 0	TURN-L											13
NO RPT						SA		SPRINGBROOK RD	SW		UNKNOWN	N	DRY	TURN		PRVTE	SW-N									000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and Intersectional Crashes at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 106

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL BUS	WORK ZONE	DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
						9P			06	0		N	DARK	PDO		PSNGR CAR		01	DRVR	NONE	17	F	OR-Y		045	000		13
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									012		00
																PSNGR CAR		01	DRVR	NONE	57	M	OR-Y		000	000		00
																							OR<25					
00818	N	N	N			09/21/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										124	07
NONE						FR		SPRINGBROOK RD	SW		TRF SIGNAL	N	WET	REAR		PRVTE	SW-NE									000	124	00
						3P			06	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	19	M	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	NONE	26	F	OR-Y		000	000		00
																							OR<25					
00868	N	N	N	N	N	10/02/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
CITY						TU		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						5P			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	44	M	OR-Y		043	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	INJC	41	M	OR-Y		000	000		00
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		02	PSNG	INJC	39	F			000	000		00
00873	N	N	N			10/03/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						WE		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						12P			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	20	F	OTH-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	INJC	41	M	OR-Y		000	000		00
																							OR<25					
00888	Y	N	N			10/07/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										093	01
NO RPT						SU		SPRINGBROOK RD	SW		L-GRN-SIG	N	DRY	REAR		PRVTE	SW-NE									000		00
						12P			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	24	M	OR-Y		047	088	093	01
																							OR>25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									012		00
																PSNGR CAR		01	DRVR	INJC	69	M	OTH-Y		000	000		00
																							N-RES					
															02	NONE 0	STOP											
																PRVTE	SW-NE									012		00
																PSNGR CAR		02	PSNG	INJC	65	F			000	000		00
00987	N	N	N			11/01/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 0	TURN-L											08,02
NO RPT						TH		SPRINGBROOK RD	SW		L-GRN-SIG	N	WET	TURN		PRVTE	S -SW									000		00
						7A			05	0		N	DAWN	PDO		SCHL BUS		01	DRVR	NONE	58	M	OR-Y		007,028	000		08,02
																							OR<25					
															02	NONE 0	TURN-L											

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and Intersectional Crashes at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 106

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL	WORK	DAY OF WEEK / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
																PRVTE	S -SW									000		00
																PSNGR CAR		01	DRVR	NONE	48	M	OR-Y OR<25		000	000		00
00278	N	N	N	N	N	04/04/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT												07
CITY						TH		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						7A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	47	M	OR-Y OR<25		026	000		07
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	INJC	39	M	OR-Y OR<25		000	000		00
00294	N	N	N			04/09/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NO RPT						TU		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						1P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	25	F	OR-Y OR<25		026	000		07
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	NONE	55	M	OR-Y OR<25		000	000		00
00460	N	N	N			06/04/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
CITY						TU		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						7A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	62	M	OR-Y OR<25		026	000		07
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	INJC	44	M	OR-Y OR<25		000	000		00
00545	N	N	N			06/26/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NONE						WE		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						9A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	UNK UNK		026	000		07
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	NONE	46	F	OR-Y OR<25		000	000		00
00688	N	N	N			08/06/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	UNK	S-1STOP	01	NONE	STRGHT												07
NONE						TU		SPRINGBROOK RD	SW		TRF SIGNAL	N	UNK	REAR		PRVTE	SW-NE									000		00
						3P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	18	M	OR-Y OR<25		026	000		07
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	NONE	51	M	OR-Y OR<25		000	000		00
01203	N	N	N			12/31/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NO RPT						TU		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						5P			06	2		N	DUSK	INJ		PSNGR CAR		01	DRVR	NONE	41	F	OR-Y OR<25		026	000		07
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	INJC	61	F	OR-Y OR<25		000	000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and Intersectional Crashes at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 106

SER# / INVEST	S P E D	A L C	R U G S	S C H L	W O R K	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC / INJ / SVRTY	A G E	S E X	LICNS / RES / LOC	PED ERROR	ACT EVENT	CAUSE
															02	NONE 0	STOP								
																PRVTE	SW-NE							011	00
																PSNGR CAR		02	PSNG INJC	59	M		000	000	00
00038	Y	N	N			01/12/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	S-STRGHT	01	NONE 0	STRGHT									01
NONE						WE		SPRINGBROOK RD	W		TRF SIGNAL	N	WET	REAR		PRVTE	W -E							000	00
						5P			06	0		N	DARK	INJ		PSNGR CAR		01	DRVR NONE	58	F	OR-Y OR<25	042	000	01
															02	NONE 0	STRGHT								
																PRVTE	W -E							000	00
																PSNGR CAR		01	DRVR INJC	47	F	OR-Y OR<25	000	000	00
00168	N	N	N			03/02/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	UNK	S-1STOP	01	NONE	STRGHT									07,27
NONE						WE		SPRINGBROOK RD	W		UNKNOWN	N	UNK	REAR		PRVTE	W -E							000	00
						4P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR NONE	34	M	OR-Y OR<25	026	000	07,27
															02	NONE 0	STOP								
																PRVTE	W -E							011	00
																PSNGR CAR		01	DRVR NONE	35	M	OR-Y OR<25	000	000	00
00493	Y	N	N			07/01/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT									01
CITY						FR		SPRINGBROOK RD	W		TRF SIGNAL	N	DRY	REAR		PRVTE	E -W							000	00
						12P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR NONE	00	Unk	UNK UNK	026	000	01
															02	NONE 0	STOP								
																PRVTE	E -W							011	00
																PSNGR CAR		01	DRVR NONE	37	F	OR-Y OR<25	000	000	00
															02	NONE 0	STOP								
																PRVTE	E -W							011	00
																PSNGR CAR		02	PSNG NO<5	01	M		000	000	00
00686	N	N	N			08/24/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	STRGHT									07
NONE						WE		SPRINGBROOK RD	W		UNKNOWN	N	DRY	REAR		PRVTE	W -E							000	00
						4P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR NONE	52	F	OR-Y OR<25	026	000	07
															02	NONE	STOP								
																PRVTE	W -E							011	00
																PSNGR CAR		01	DRVR NONE	34	F	OR-Y OR<25	000	000	00
00248	N	N	N			03/19/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT								013	27
NO RPT						MO		SPRINGBROOK RD	W		TRF SIGNAL	N	WET	REAR		PRVTE	W -E							000	00
						7A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR NONE	29	M	OR-Y OR<25	026	000	07
															02	NONE	STOP								
																PRVTE	W -E							011	013 00
																PSNGR CAR		01	DRVR NONE	73	M	OR-Y OR<25	000	000	00
															03	NONE 0	STOP								
																PRVTE	W -E							011	00
																PSNGR CAR		01	DRVR NONE	61	M	OR-Y	000	000	00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and Intersectional Crashes at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 106

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL	WORK	DAY OF WEEK / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES OR<25 / OR>25	PED LOC	ERROR	ACT	EVENT	CAUSE
00138		N	N	N		02/21/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						TH		SPRINGBROOK RD	W		YIELD	N	DRY	REAR		PRVTE	W -E									000		00
						3P			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	00	M	UNK		026	000		07
																							OR>25					
															02	NONE 0	STOP											
																PRVTE	W -E									011		00
																PSNGR CAR		01	DRVR	INJC	32	M	OR-Y		000	000		00
																							OR>25					
00146		N	N	N		02/19/2009	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	TURN-R											04
NONE						TH		SPRINGBROOK RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	SW-S									000		00
						6P			03	2		Y	DARK	PDO		PSNGR CAR		01	DRVR	NONE	50	F	OR-Y		020	000		04
																							OR<25					
															02	NONE 0	STRGHT											
																PRVTE	N -S									000		00
																PSNGR CAR		01	DRVR	NONE	46	F	OR-Y		000	000		00
																							OR<25					
00430		N	N	N	N	06/08/2009	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	TURN-L											32,04
CITY						MO		SPRINGBROOK RD	CN		TRF SIGNAL	N	DRY	ANGL		PRVTE	N -NE									000		00
						5P			03	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	56	F	OR-Y		052,020	000		32,04
																							OR<25					
															02	NONE 0	STRGHT											
																PRVTE	SW-NE									000		00
																PSNGR CAR		01	DRVR	INJB	30	F	OR-Y		000	000		00
																							OR<25					
01182		N	N	N		12/03/2010	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-OTHER	01	NONE	TURN-L											05
NO RPT						FR		SPRINGBROOK RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	N -E									000		00
						2P			04	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	64	M	OR-Y		080	000		05
																							OR<25					
															02	NONE 0	TURN-L											
																PRVTE	N -E									000		00
																PSNGR CAR		01	DRVR	NONE	44	F	OR-Y		000	000		00
																							OR<25					
00895		N	N	N		10/19/2010	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	O-1TURN	01	NONE 0	TURN-L											04
NO RPT						TU		SPRINGBROOK RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	N -E									000		00
						8A			02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	42	F	OR-Y		020	000		04
																							OR<25					
															02	NONE 0	STRGHT											
																PRVTE	S -N									000		00
																PSNGR CAR		01	DRVR	INJC	34	F	OR-Y		000	000		00
																							OR<25					
00400		N	N	N		05/28/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NO RPT						SA		SPRINGBROOK RD	CN		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000		00
						4P			03	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	68	M	OR-Y		026	000		07
																							OR>25					
															02	NONE 0	STOP											
																PRVTE	W -E									011		00
																PSNGR CAR		01	DRVR	NONE	33	F	OR-Y		000	000		00
																							OR<25					
00272		N	N	N	N	03/27/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 0	STRGHT											03

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and Intersectional Crashes at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 106

SER# / INVEST	S P E D	A L C	D R U G S	S W C H L	O K	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
CITY						TU		SPRINGBROOK RD	CN		TRF SIGNAL	N	WET	ANGL		PRVTE	W -E									000		00
						9P			03	0		N	DARK	INJ		PSNGR CAR		01	DRVR	NONE	17	F	OR-Y		021	000		03
																								OR<25					
															02	NONE 0	STRGHT											
																PRVTE	N -S									000		00
																PSNGR CAR		01	DRVR	INJC	63	M	OR-Y		000	000		00
																								OR<25					
00821	N	N	N			09/21/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	O-1TURN	01	NONE 0	STRGHT											04
NO RPT						FR		SPRINGBROOK RD	CN		L-GRN-SIG	N	WET	TURN		PRVTE	NE-SW									000		00
						6A			02	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	UNK		020	000		04
																								UNK					
															02	NONE 0	TURN-L											
																PRVTE	SW-N									000		00
																PSNGR CAR		01	DRVR	NONE	22	M	OR-Y		000	000		00
																								OR<25					
00922	N	N	N	N	N	10/15/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 0	STRGHT											02
CITY						MO		SPRINGBROOK RD	CN		TRF SIGNAL	N	WET	ANGL		PRVTE	W -E									000		00
						7P			03	2		N	DARK	PDO		PSNGR CAR		01	DRVR	NONE	65	M	OR-Y		028	000		02
																								OR<25					
															02	NONE 0	STRGHT											
																PRVTE	N -S									015		00
																PSNGR CAR		01	DRVR	NONE	56	M	OR-Y		000	000		00
																								OR<25					
01045	N	N	N			11/15/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT										092	07,14
NONE						TH		SPRINGBROOK RD	CN		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000		00
						3P			02	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	25	F	OR-Y		026	000		07,14
																								OR<25					
															02	NONE 0	STOP											
																PRVTE	NE-SW									011		00
																PSNGR CAR		01	DRVR	INJC	30	M	OR-Y		000	000		00
																								OR<25					
01117	N	N	N			12/03/2012	16	SPRINGBROOK RD	STRGHT		N	N	RAIN	O-1STOP	01	NONE 0	BACK											10
NONE						MO	100	PACIFIC HY 99W	N	(NONE)	UNKNOWN	N	WET	BACK		PRVTE	S -N									000		00
						8A			08			N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	22	M	OR-Y		011	000		10
										(04)														OR<25					
															02	NONE 0	STOP											
																PRVTE	N -S									011		00
																PSNGR CAR		01	DRVR	NONE	54	M	OR-Y		000	000		00
																								OR<25					
00120	N	N	N			01/25/2012	16	SPRINGBROOK RD	CURVE		N	N	CLR	ANGL-OTH	01	NONE 0	TURN-L											02
NO RPT						WE	500	PACIFIC HY 99W	S	(NONE)	UNKNOWN	N	DRY	TURN		PRVTE	W -N									000		00
						UNK			08			Y	DAY	INJ		PSNGR CAR		01	DRVR	NONE	48	F	OR-Y		028	000		02
										(02)														OR<25					
															02	NONE 0	STRGHT											
																PRVTE	S -N									000		00
																PSNGR CAR		01	DRVR	INJC	59	F	OR-Y		000	000		00
																								OR<25					
00040	N	N	N			01/07/2012	16	SPRINGBROOK RD	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										004	07,27
NONE						SA	0	VITTORIA WAY	N		UNKNOWN	N	DRY	REAR		PRVTE	N -S									000		00
						7P			06	0		N	DARK	INJ		PSNGR CAR		01	DRVR	NONE	18	M	OR-Y		026	000		07,27
																								OR<25					

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and Intersectional Crashes at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 106

SER# / INVEST	S P E D	A L C	R U G S	S C H L	W O R K	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES / PED LOC	ERROR	ACT	EVENT	CAUSE
															02	NONE PRVTE PSNGR CAR	STOP N -S	01	DRVR	INJC	30	F	OR-Y OR<25	000	011 000	004	00 00
00132 NONE	N	N	N			02/13/2012 MO 3P	16 0	SPRINGBROOK RD VITTORIA WAY	INTER CN 01	3-LEG 0	N STOP SIGN	N N N	UNK UNK DAY	ANGL-OTH TURN PDO	01	NONE 0 PRVTE PSNGR CAR	TURN-L E -S	01	DRVR	NONE	73	F	OR-Y OR<25	028	000 000		02 00 02
															02	NONE 0 PRVTE PSNGR CAR	TURN-L N -E	01	DRVR	NONE	44	M	OR-Y OR<25	000	000 000		00 00
00199 NONE	N	N	N			03/14/2013 TH 7A	16 0	SPRINGBROOK RD WILSONVILLE RD	INTER CN 02	3-LEG 0	N STOP SIGN	N N N	CLR DRY DAY	ANGL-OTH TURN INJ	01	NONE 0 PRVTE PSNGR CAR	TURN-L SE-SW	01	DRVR	NONE	62	M	OR-Y OR<25	028	000 000		02 00 02
															02	NONE 0 PRVTE PSNGR CAR	TURN-L NE-SE	01	DRVR	INJC	29	F	OR-Y OR<25	000	000 000		00 00
00809 CITY	Y	N	N	N	N	10/05/2009 MO 12P	16 200	SPRINGBROOK RD WILSONVILLE RD	STRGHT N 08	(NONE) (02)	N UNKNOWN	Y N N	CLR DRY DAY	FIX OBJ FIX PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT S -N	01	DRVR	NONE	20	M	NONE OR>25	047,017,081	007 017	079,088 079,088	01,07 00 01,07
00740 NONE	N	N	N			09/14/2011 WE 4P	16 0	SPRINGBROOK RD 2ND ST	INTER N 06	CROSS 0	N STOP SIGN	N N N	CLR DRY DAY	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT N -S	01	DRVR	NONE	00	F	UNK UNK	026	000 000		07 00 07
															02	NONE 0 PRVTE PSNGR CAR	STOP N -S	01	DRVR	INJC	51	F	OR-Y OR>25	000	011 000		00 00
00237 NO RPT	N	N	N			03/15/2012 TH 2P	16 0	SPRINGBROOK RD 2ND ST	INTER W 06	CROSS 0	N UNKNOWN	N N N	RAIN WET DAY	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT W -E	01	DRVR	NONE	26	M	OR-Y OR<25	026	000 000		07 00 07
															02	NONE 0 PRVTE PSNGR CAR	STOP W -E	01	DRVR	INJC	39	M	OR-Y OR<25	000	011 000		00 00
															02	NONE 0 PRVTE PSNGR CAR	STOP W -E	02	PSNG	INJA	32	F		000	011 000		00 00
															02	NONE 0 PRVTE PSNGR CAR	STOP W -E	03	PSNG	INJC	04	F		000	011 000		00 00
00777 CITY	N	N	N			10/21/2009 WE 1P	16 0	SPRINGBROOK RD 2ND ST	INTER CN 01	CROSS 0	N STOP SIGN	N N N	CLR DRY DAY	ANGL-OTH ANGL INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT N -S	01	DRVR	NONE	51	M	OTH-Y	021	000 000		03 00 03

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and Intersectional Crashes at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 106

SER# / INVEST	SPE	ALC	DRS	WCH	WKR	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
															01	NONE 0	STRGHT						N-RES					
																PRVTE	N -S									000		00
																PSNGR CAR		02	PSNG	INJC	63	M			000	000		00
															02	NONE 0	STRGHT											
																PRVTE	E -W									015		00
																PSNGR CAR		01	DRVR	NONE	44	F	OR-Y		000	000		00
																							OR<25					
00894	N	N	N	N	N	10/18/2010	16	SPRINGBROOK RD	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 2	STRGHT											03
CITY						MO	0	2ND ST	CN		STOP SIGN	N	DRY	TURN		PRVTE	S -N									000		00
						12P			04	0		N	DAY	PDO		SEMI TOW		01	DRVR	NONE	46	M	OR-Y		021	000		03
																							OR<25					
															02	NONE 0	TURN-L											
																PRVTE	W -N									000		00
																PSNGR CAR		01	DRVR	NONE	30	M	OR-Y		000	000		00
																							OR<25					
00814	N	N	N			09/21/2012	16	SPRINGBROOK RD	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 0	STRGHT											03
NO RPT						FR	0	2ND ST	CN		STOP SIGN	N	WET	TURN		PRVTE	N -S									015		00
						9A			03	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJB	22	M	OR-Y		000	000		00
																							OR<25					
															02	NONE 0	TURN-L											
																PRVTE	W -N									000		00
																PSNGR CAR		01	DRVR	NONE	30	M	OR-Y		021	000		03
																							OR<25					
01190	N	N	N	N	N	12/20/2012	16	SPRINGBROOK RD	INTER	CROSS	N	N	RAIN	O-1TURN	01	NONE 0	STRGHT											03,27
CITY						TH	0	2ND ST	CN		STOP SIGN	N	WET	TURN		PRVTE	N -S									000		00
						6A			01	0		N	DARK	INJ		PSNGR CAR		01	DRVR	INJB	24	F	OR-Y		021,016	038		03,27
																							OR<25					
															02	NONE 0	TURN-L											
																PRVTE	S -W									015		00
																PSNGR CAR		01	DRVR	NONE	56	F	OR-Y		000	000		00
																							OR<25					

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

BRUTSCHER ST and Intersectional Crashes at BRUTSCHER ST, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2013														
NON-COLLISION	0	1	0	1	0	1	0	1	0	0	1	1	0	0
REAR-END	0	2	0	2	0	2	0	1	1	2	0	2	0	0
TURNING MOVEMENTS	0	0	2	2	0	0	0	2	0	2	0	2	0	0
YEAR 2013 TOTAL	**0**	**3**	**2**	**5**	**0**	**3**	**0**	**4**	**1**	**4**	**1**	**5**	**0**	**0**
YEAR: 2012														
REAR-END	0	4	1	5	0	5	0	4	1	5	0	4	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	0	1	1	0	0
YEAR 2012 TOTAL	**0**	**4**	**2**	**6**	**0**	**5**	**0**	**5**	**1**	**5**	**1**	**5**	**0**	**0**
YEAR: 2011														
ANGLE	0	0	1	1	0	0	0	1	0	0	1	1	0	0
REAR-END	0	4	1	5	0	6	0	3	2	3	2	3	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	0	0	0
YEAR 2011 TOTAL	**0**	**4**	**3**	**7**	**0**	**6**	**0**	**5**	**2**	**4**	**3**	**4**	**0**	**0**
YEAR: 2010														
PEDESTRIAN	0	1	0	1	0	1	0	1	0	1	0	1	0	0
REAR-END	0	0	1	1	0	0	0	0	1	1	0	0	0	0
TURNING MOVEMENTS	0	1	1	2	0	1	0	2	0	2	0	0	0	0
YEAR 2010 TOTAL	**0**	**2**	**2**	**4**	**0**	**2**	**0**	**3**	**1**	**4**	**0**	**1**	**0**	**0**
YEAR: 2009														
ANGLE	0	1	0	1	0	1	0	1	0	0	1	1	0	0

ATTACHMENT 4

BRUTSCHER ST and Intersectional Crashes at BRUTSCHER ST, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
REAR-END	0	1	2	3	0	1	0	2	1	3	0	3	0	0
YEAR 2009 TOTAL	**0**	**2**	**2**	**4**	**0**	**2**	**0**	**3**	**1**	**3**	**1**	**4**	**0**	**0**
FINAL TOTAL	**0**	**15**	**11**	**26**	**0**	**18**	**0**	**20**	**6**	**20**	**6**	**19**	**0**	**0**

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

BRUTSCHER ST and Intersectional Crashes at BRUTSCHER ST, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 26

SER# / INVEST	S P E D	A L C	R U G S	S W C H L	O R K	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00152	N	N	N			02/26/2011	17	LITTLE OAK	INTER	3-LEG	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT											02
NONE						SA	0	BRUTSCHER ST	CN		STOP SIGN	N	DRY	ANGL		PRVTE	W -E									000		00
						6P			03	0		N	DARK	PDO		PSNGR CAR		01	DRVR	NONE	00	M	OR-Y		028	000		02
																							OR<25					
															02	NONE	STRGHT											
																PRVTE	N -S									000		00
																PSNGR CAR		01	DRVR	NONE	77	M	OR-Y		000	000		00
																							OR<25					
00913	Y	N	N			10/16/2013	17	BRUTSCHER ST	INTER	CROSS	N	N	CLR	OVERTURN	01	NONE 0	TURN-L										124	01
NONE						WE	0	HAYES ST	CN		CURVE	Y	DRY	NCOL		PRVTE	E -S									000	124	00
						7A			01	0		N	DAWN	INJ		MTRCYCLE		01	DRVR	INJB	20	M	OR-Y		047	017		01
																							OR<25					
00594	N	N	N	N	N	08/07/2009	14	BRUTSCHER ST	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT										013	07
CITY						FR		PACIFIC HY 99W	UN		TRF SIGNAL	N	DRY	REAR		PRVTE	N -S									000		00
						8A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	53	F	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	N -S									011	013	00
																PSNGR CAR		01	DRVR	NONE	21	F	OR-Y		000	000		00
																							OR<25					
															03	NONE 0	STOP											
																PRVTE	N -S									011		00
																PSNGR CAR		01	DRVR	INJC	22	F	OR-Y		000	000		00
																							OR<25					
00920	N	N	N			11/25/2009	14	BRUTSCHER ST	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						WE		PACIFIC HY 99W	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000		00
						3P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	40	M	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	NE-SW									011		00
																PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
																							UNK					
00415	N	N	N			05/19/2012	14	BRUTSCHER ST	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										013	07
NO RPT						SA		PACIFIC HY 99W	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000		00
						10A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	31	M	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	NE-SW									011	013	00
																PSNGR CAR		01	DRVR	NONE	36	F	OR-Y		000	000		00
																							OR<25					
															03	NONE 0	STOP											
																PRVTE	NE-SW									011		00
																PSNGR CAR		01	DRVR	INJC	38	M	OR-Y		000	000		00
																							OR<25					
00518	N	N	N			06/22/2012	14	BRUTSCHER ST	INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											27
NO RPT						FR		PACIFIC HY 99W	NE		TRF SIGNAL	N	WET	REAR		PRVTE	NE-SW									000		00
						4P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	20	F	OR-Y		026	000		27
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	NE-SW									011		00
																PSNGR CAR		01	DRVR	INJC	42	F	OR-Y		000	000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

BRUTSCHER ST and Intersectional Crashes at BRUTSCHER ST, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 26

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL BUS	WORK ZONE	DAY OF WEEK / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES / LOC	PED ERROR	ACT	EVENT	CAUSE
00907	N	N	N			10/04/2012	14	BRUTSCHER ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT						OR<25				07
NONE						TH		PACIFIC HY 99W	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW								000		00
						5P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	26	M	OR-Y	026	000		07
																							OR<25				
															02	NONE 0	STOP										
																PRVTE	NE-SW								011		00
																PSNGR CAR		01	DRVR	NONE	40	M	OR-Y	000	000		00
																							OR<25				
00829	N	N	N			09/23/2013	14	BRUTSCHER ST	INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT										07
NONE						MO		PACIFIC HY 99W	NE		TRF SIGNAL	N	WET	REAR		PRVTE	NE-SW								000		00
						2P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	40	F	OR-Y	026	000		07
																							OR<25				
															02	NONE 0	STOP										
																PRVTE	NE-SW								011		00
																PSNGR CAR		01	DRVR	INJC	71	M	OR-Y	000	000		00
																							OR<25				
00661	N	N	N			08/18/2011	14	BRUTSCHER ST	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT									013	32
NO RPT						TH		PACIFIC HY 99W	E		UNKNOWN	N	DRY	REAR		PRVTE	E -W								000		00
						5P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJB	35	F	OR-Y	052,026	000		32
																							OR<25				
															02	NONE 0	STOP										
																PRVTE	E -W								011	013	00
																PSNGR CAR		01	DRVR	INJC	43	M	OR-Y	000	000		00
																							OR<25				
															03	NONE 0	STOP										
																PRVTE	E -W								011		00
																PSNGR CAR		01	DRVR	NONE	59	M	OR-Y	000	000		00
																							OR<25				
01136	N	N	N	N	N	12/21/2010	14	BRUTSCHER ST	INTER	3-LEG	N	N	CLD	PED	01	NONE 0	TURN-L										02
CITY						TU		PACIFIC HY 99W	SW		TRF SIGNAL	Y	DRY	PED		PRVTE	SE-SW								000		00
						9A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	33	M	OTH-Y	029	000		02
																							N-RES				
																	-										
																	STRGHT	01	PED	INJA	60	F		I XWLK 000	035		00
																	SE NW										
00469	N	N	N	N	N	06/11/2012	14	BRUTSCHER ST	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										27
CITY						MO		PACIFIC HY 99W	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE								000		00
						10A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	22	F	OR-Y	026	000		27
																							OR<25				
															02	NONE 0	STOP										
																PRVTE	SW-NE								011		00
																PSNGR CAR		01	DRVR	INJB	46	F	OR-Y	000	000		00
																							OR<25				
															02	NONE 0	STOP										
																PRVTE	SW-NE								011		00
																PSNGR CAR		02	PSNG	INJB	25	F		000	000		00
01018	N	N	N			11/09/2012	14	BRUTSCHER ST	INTER	CROSS	N	N	CLD	ANGL-STP	01	NONE 0	TURN-L									092	32,27
CITY						FR		PACIFIC HY 99W	SW		TRF SIGNAL	N	DRY	TURN		PRVTE	SE-SW								000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

BRUTSCHER ST and Intersectional Crashes at BRUTSCHER ST, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 26

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL BUS	WORK ZONE	DAY / TIME	CLASS / DIST	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
						5P			05	0		N	DUSK	PDO		PSNGR CAR		01	DRVR	NONE	44	M	OR-Y		052,016	038		32,27
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	NE-SW									011	092	00
																PSNGR CAR		01	DRVR	NONE	71	M	OR-Y		000	000		00
																							OR<25					
00585	N	N	N	N	N	07/09/2013	14	BRUTSCHER ST	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
CITY						TU		PACIFIC HY 99W	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									011		00
						6A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	50	M	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	INJC	36	M	OR-Y		000	000		00
																							OR<25					
00800	N	N	N			10/30/2009	14	BRUTSCHER ST	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE	STRGHT											07,27
NONE						FR		PACIFIC HY 99W	W		TRF SIGNAL	N	SNO	REAR		PRVTE	W -E									000		00
						9A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	43	M	OR-Y		026	000		07,27
																							OR<25					
															01	NONE	STRGHT											
																PRVTE	W -E									000		00
																PSNGR CAR		02	PSNG	NO<5	03	F			000	000		00
															02	NONE 0	STOP											
																PRVTE	W -E									011		00
																PSNGR CAR		01	DRVR	INJC	22	F	OR-Y		000	000		00
																							OR<25					
01005	N	N	N			11/07/2011	14	BRUTSCHER ST	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						MO		PACIFIC HY 99W	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000		00
						5P			06	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	42	F	OR-Y		026	000		07
																							OR>25					
															02	NONE 0	STOP											
																PRVTE	W -E									011		00
																PSNGR CAR		01	DRVR	INJC	31	M	OR-Y		000	000		00
																							OR>25					
00063	N	N	N	N	N	01/18/2009	14	BRUTSCHER ST	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT											04
CITY						SU		PACIFIC HY 99W	CN		TRF SIGNAL	N	DRY	ANGL		PRVTE	W -E									000		00
						11P			04	0		N	DARK	INJ		PSNGR CAR		01	DRVR	NONE	18	F	OR-Y		020	000		04
																							OR<25					
															02	NONE 0	TURN-L											
																PRVTE	S -W									000		00
																PSNGR CAR		01	DRVR	INJB	16	M	OR-Y		000	000		00
																							OR<25					
00375	N	N	N			05/05/2013	14	BRUTSCHER ST	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	U-TURN											08

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

BRUTSCHER ST and Intersectional Crashes at BRUTSCHER ST, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 26

SER# / INVEST	SPED	ALC	DRG	SCH	WK	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
NO RPT						SU		PACIFIC HY 99W	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	S -S									000		00
						12P			01	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	63	M	OR-Y		008	000		08
																								OR<25					
															02	NONE 0	STRGHT											
																PRVTE	E -W									000		00
																PSNGR CAR		01	DRVR	NONE	46	F	OR-Y		000	000		00
																							OR<25					
00740	N	N	N			08/23/2013	14	BRUTSCHER ST	INTER	3-LEG	N	N	CLR	O-1TURN	01	NONE 0	STRGHT										002	04,27
NO RPT						FR		PACIFIC HY 99W	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	W -E									000		00
						1P			01	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	31	F	OR-Y		020	000	002	04,27
																							OR<25					
															01	NONE 0	STRGHT											
																PRVTE	W -E									000		00
																PSNGR CAR		02	PSNG	NO<5	01	M			000	000		00
															02	NONE 0	TURN-L											
																PRVTE	S -W									000		00
																PSNGR CAR		01	DRVR	NONE	23	F	OR-Y		000	000		00
																							OR<25					
00153	N	N	N			02/12/2010	17	BRUTSCHER ST	ALLEY		N	N	CLR	ANGL-OTH	01	NONE 0	TURN-L											02
NONE						FR	150	PACIFIC HY 99W	SE	(NONE)	UNKNOWN	N	DRY	TURN		PRVTE	SW-NW									018		00
						4P			08			N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	69	F	OR-Y		028	000		02
										(02)													OR<25					
															02	NONE 0	TURN-L											
																PRVTE	SE-SW									019		00
																PSNGR CAR		01	DRVR	NONE	59	M	OR-Y		000	000		00
																							OR<25					
01050	N	N	N			11/28/2010	19	BRUTSCHER ST	ALLEY		N	N	CLR	ANGL-OTH	01	NONE 0	TURN-L											02
NO RPT						SU	200	PACIFIC HY 99W	S	(NONE)	STOP SIGN	N	DRY	TURN		PRVTE	SW-NW									018		00
						12P			07			N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	21	M	OR-Y		028	000		02
										(02)													OR<25					
															02	NONE 0	STRGHT											
																PRVTE	NW-SE									000		00
																PSNGR CAR		01	DRVR	INJC	62	M	OR-Y		000	000		00
																							OR<25					
00010	N	N	N			01/03/2011	17	BRUTSCHER ST	ALLEY		N	N	CLR	ANGL-OTH	01	NONE 0	TURN-R											02
NONE						MO	200	PACIFIC HY 99W	S	(NONE)	UNKNOWN	N	DRY	TURN		PRVTE	E -N									000		00
						1P			08			N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	UNK		028	000		02
										(02)													UNK					
															02	NONE 0	STRGHT											
																PRVTE	S -N									000		00
																PSNGR CAR		01	DRVR	NONE	47	F	OR-Y		000	000		00
																							OR<25					
00624	N	N	N			07/21/2012	14	BRUTSCHER ST	STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						SA		PACIFIC HY 99W	E	(NONE)	UNKNOWN	N	DRY	REAR		PRVTE	W -E									000		00
						3P			07			Y	DAY	INJ		PSNGR CAR		01	DRVR	NONE	33	F	OR-Y		026	000		07
										(04)													OR<25					
															02	NONE 0	STOP											
																PRVTE	W -E									011		00
																PSNGR CAR		01	DRVR	INJC	27	M	OR-Y		000	000		00
																							OR<25					

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

BRUTSCHER ST and Intersectional Crashes at BRUTSCHER ST, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 26

SER# / INVEST	S P E D	A L C	R U G S	S C H L	W O R K	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00538	N	N	N			07/02/2010	14	BRUTSCHER ST	STRGHT		N	N	CLD	S-1STOP	01	NONE 0	STRGHT											013	07
NONE						FR		PACIFIC HY 99W	SW	(RSDMD)	UNKNOWN	N	WET	REAR		PRVTE	NE-SW									000		00
						6P			08			N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	17	M	OR-Y		026	000		07
										(04)													OR<25					
															02	NONE 0	STOP											
																PRVTE	NE-SW									011	013	00
																PSNGR CAR		01	DRVR	NONE	00	M	OR-Y		000	000		00
																							OR<25					
															03	NONE 0	STOP											
																PRVTE	NE-SW									011		00
																PSNGR CAR		01	DRVR	NONE	00	M	OR-Y		000	000		00
																							OR<25					
00321	N	N	N			04/30/2011	14	BRUTSCHER ST	STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NO RPT						SA		PACIFIC HY 99W	SW	(RSDMD)	UNKNOWN	N	DRY	REAR		PRVTE	SW-NE									000		00
						11A			08			N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	56	M	OR-Y		026	000		07
										(04)													OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	NONE	37	M	UNK		000	000		00
																							N-RES					
00437	N	N	N	N	N	06/12/2011	14	BRUTSCHER ST	STRGHT		N	N	CLD	S-1STOP	01	NONE	STRGHT												07
CITY						SU		PACIFIC HY 99W	W	(RSDMD)	UNKNOWN	N	WET	REAR		PRVTE	W -E									000		00
						3P			08			N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	43	M	OTH-Y		026	000		07
										(04)													N-RES					
															02	NONE 0	STOP											
																PRVTE	W -E									011		00
																PSNGR CAR		01	DRVR	INJC	47	M	OR-Y		000	000		00
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	W -E									011		00
																PSNGR CAR		02	PSNG	INJC	11	F			000	000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

ATTACHMENT 4

HAYES ST and Intersectional Crashes at HAYES ST, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

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

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

HAYES ST and Intersectional Crashes at HAYES ST, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 3

SER# / INVEST	S P E D	A L C	D R U G	S L	W C H	O R K	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
01080	N	N	N	N	N		11/23/2012	19	BURL ST	INTER	CROSS	N	Y	RAIN	FIX OBJ	01	NONE 0	PARKNG										040,088	27
CITY							FR	0	HAYES ST	E		STOP SIGN	N	WET	FIX		PRVTE	S -N									008	040,088	00
							10A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	41	M	OR-Y OR<25		016,080,081	038		27
00913	Y	N	N				10/16/2013	17	BRUTSCHER ST	INTER	CROSS	N	N	CLR	OVERTURN	01	NONE 0	TURN-L										124	01
NONE							WE	0	HAYES ST	CN		CURVE	Y	DRY	NCOL		PRVTE	E -S									000	124	00
							7A			01	0		N	DAWN	INJ		MTRCYCLE		01	DRVR	INJB	20	M	OR-Y OR<25		047	017		01
00830	N	N	N	N	N		09/23/2013	16	HAYES ST	INTER	3-LEG	N	N	CLD	S-1STOP	01	NONE 0	STRGHT											07
CITY							MO	0	SPRINGBROOK RD	N		TRF SIGNAL	N	SNO	REAR		PRVTE	N -S									000		00
							8A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	48	F	OR-Y OR<25		026	000		07
																02	NONE 0	STOP											
																	PRVTE	N -S									011		00
																	PSNGR CAR		01	DRVR	INJC	37	F	OR-Y OR<25		000	000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

PACIFIC HY 99W at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2013														
REAR-END	0	9	3	12	0	13	0	9	2	11	1	12	0	0
TURNING MOVEMENTS	0	1	0	1	0	2	0	1	0	0	1	1	0	0
YEAR 2013 TOTAL	**0**	**10**	**3**	**13**	**0**	**15**	**0**	**10**	**2**	**11**	**2**	**13**	**0**	**0**
YEAR: 2012														
ANGLE	0	1	1	2	0	1	0	0	2	0	2	2	0	0
PEDESTRIAN	0	1	0	1	0	1	0	1	0	1	0	1	0	0
REAR-END	0	5	6	11	0	7	0	7	4	9	2	11	0	0
TURNING MOVEMENTS	0	0	4	4	0	0	0	2	2	2	2	4	0	0
YEAR 2012 TOTAL	**0**	**7**	**11**	**18**	**0**	**9**	**0**	**10**	**8**	**12**	**6**	**18**	**0**	**0**
YEAR: 2011														
REAR-END	0	1	14	15	0	1	0	10	3	13	2	15	0	0
SIDESWIPE - OVERTAKING	0	0	1	1	0	0	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR 2011 TOTAL	**0**	**1**	**16**	**17**	**0**	**1**	**0**	**12**	**3**	**15**	**2**	**17**	**0**	**0**
YEAR: 2010														
REAR-END	0	3	4	7	0	4	0	4	3	5	2	7	0	0
TURNING MOVEMENTS	0	1	1	2	0	1	0	2	0	2	0	2	0	0
YEAR 2010 TOTAL	**0**	**4**	**5**	**9**	**0**	**5**	**0**	**6**	**3**	**7**	**2**	**9**	**0**	**0**
YEAR: 2009														
ANGLE	0	1	0	1	0	1	0	1	0	1	0	1	0	0

PACIFIC HY 99W at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
REAR-END	0	5	5	10	0	7	0	7	2	9	1	10	0	0
TURNING MOVEMENTS	0	1	1	2	0	1	0	2	0	1	1	2	0	0
YEAR 2009 TOTAL	**0**	**7**	**6**	**13**	**0**	**9**	**0**	**10**	**2**	**11**	**2**	**13**	**0**	**0**
FINAL TOTAL	**0**	**29**	**41**	**70**	**0**	**39**	**0**	**48**	**18**	**56**	**14**	**70**	**0**	**0**

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

PACIFIC HY 99W at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 70

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL BUS	WORK ZONE	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
00021	N	N	N			01/12/2009	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-STRGHT	01	NONE 0	STRGHT										07
NO RPT						MO		SPRINGBROOK RD	UN		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000	00
						8P			06	2		N	DARK	INJ		PSNGR CAR		01	DRVR	INJB	61	M	OR-Y		042	000	07
																							OR<25				
															02	NONE 0	STRGHT										
																PRVTE	NE-SW									000	00
																PSNGR CAR		01	DRVR	NONE	26	F	OR-Y		000	000	00
																							OR<25				
00029	N	N	N	N	N	01/10/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	PED	01	NONE 0	TURN-R										02
CITY						TU		SPRINGBROOK RD	UN		TRF SIGNAL	N	DRY	PED		PRVTE	W -S									000	00
						3P			05	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	71	F	OR-Y		029	026	02
																							OR<25				
																	-										
																	STRGHT	01	PED	INJB	14	F		I XWLK	000	035	00
																	W E										
00319	N	N	N	N	N	04/18/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-OTHER	01	NONE 0	TURN-L										05
CITY						TH		SPRINGBROOK RD	UN		TRF SIGNAL	N	DRY	TURN		PRVTE	N -E									000	00
						8P			05	0		N	DARK	INJ		PSNGR CAR		01	DRVR	NONE	69	M	OR-Y		080	000	05
																							OR<25				
															02	NONE 0	TURN-L										
																PRVTE	N -E									000	00
																PSNGR CAR		01	DRVR	NONE	42	M	OR-Y		000	000	00
																							OR<25				
															02	NONE 0	TURN-L										
																PRVTE	N -E									000	00
																PSNGR CAR		02	PSNG	INJC	41	F			000	000	00
															02	NONE 0	TURN-L										
																PRVTE	N -E									000	00
																PSNGR CAR		03	PSNG	INJC	12	F			000	000	00
01068	N	N	N			11/07/2011	16	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NO RPT						MO	0	SPRINGBROOK RD	N		TRF SIGNAL	N	WET	REAR		PUBLC	N -S									000	00
						7A			06	0		N	DAY	PDO		SCHL BUS		01	DRVR	NONE	00	Unk	UNK		026	000	07
																							UNK				
															02	NONE 0	STOP										
																PRVTE	N -S									011	00
																PSNGR CAR		01	DRVR	NONE	51	F	OR-Y		000	000	00
																							OR<25				
00322	N	N	N			04/15/2009	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NONE						WE		SPRINGBROOK RD	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000	00
						5P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	OR-Y		026	000	07
																							OR<25				
															02	NONE 0	STOP										
																PRVTE	NE-SW									011	00
																PSNGR CAR		01	DRVR	NONE	71	M	OR-Y		000	000	00
																							OR<25				
00489	N	N	N			06/30/2009	14	PACIFIC HY 99W	INTER	CROSS	N	N	UNK	S-1STOP	01	NONE 0	STRGHT										07
NO RPT						TU		SPRINGBROOK RD	NE		TRF SIGNAL	N	UNK	REAR		PRVTE	NE-SW									000	00
						3P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	30	F	UNK		026	000	07

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

PACIFIC HY 99W at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 70

SER# / INVEST	SPEED	ALCOHOL	DRUGS	SCHL BUS	WORK ZONE	DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
															02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW						OR<25			011		00
																		01	DRVR	NONE	34	M	OTH-Y N-RES		000	000		00
00578 NO RPT	N	N	N			07/13/2009 MO 11A	14	PACIFIC HY 99W SPRINGBROOK RD	INTER NE 06	CROSS 0	N TRF SIGNAL	N N N	CLR DRY DAY	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	33	F	OR-Y		026	000 000	013	07 00 07
															02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	NONE	35	F	OR<25 OR-Y		000	011 000	013	00 00
															03	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	NONE	00	Unk	OR<25 UNK UNK		000	011 000		00 00
00065 NONE	N	N	N			01/05/2010 TU 7P	14	PACIFIC HY 99W SPRINGBROOK RD	INTER NE 09	CROSS 2	N YIELD	N N N	RAIN WET DARK	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	TURN-R E -N	01	DRVR	NONE	55	M	OR-Y		026,016	000 000		27,07 00 27,07
															02	NONE 0 PRVTE PSNGR CAR	STOP E -N	01	DRVR	NONE	28	F	OR<25 OR-Y		000	011 000		00 00
00870 NO RPT	N	N	N			10/13/2010 WE 3P	14	PACIFIC HY 99W SPRINGBROOK RD	INTER NE 06	CROSS 0	N TRF SIGNAL	N N N	CLR DRY DAY	S-1STOP REAR PDO	01	NONE PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	37	F	OR<25 OR-Y		026	000 000	013	07 00 07
															02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	NONE	68	M	OR<25 OR-Y		000	011 000	013	00 00
															03	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	NONE	67	F	OR<25 OR-Y		000	011 000		00 00
00516 NONE	N	N	N			07/07/2011 TH 8A	14	PACIFIC HY 99W SPRINGBROOK RD	INTER NE 06	CROSS 0	N TRF SIGNAL	N N N	UNK UNK DAY	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	00	M	OR-Y UNK		026	000 000		07 00 07
															02	NONE 0 PRVTE PSNGR CAR	STOP NE-SW	01	DRVR	NONE	60	M	OR-Y OR<25		000	011 000		00 00
00692 NONE	N	N	N			08/26/2011 FR 3P	14	PACIFIC HY 99W SPRINGBROOK RD	INTER NE 06	CROSS 0	N TRF SIGNAL	N N N	CLR DRY DAY	S-1STOP REAR PDO	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE-SW	01	DRVR	NONE	39	M	OR-Y		026	000 000		07 00 07
															02	NONE 0 PRVTE	STOP NE-SW						OR<25			011		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

PACIFIC HY 99W at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 70

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL BUS	WORK ZONE	DAY OF WEEK / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
																PSNGR CAR		01	DRVR	NONE	25	F	OR-Y		000	000	00
																							OR<25				
															02	NONE 0	STOP										
																PRVTE	NE-SW									011	00
																PSNGR CAR		02	PSNG	NO<5	02	F			000	000	00
															02	NONE 0	STOP										
																PRVTE	NE-SW									011	00
																PSNGR CAR		03	PSNG	NO<5	01	M			000	000	00
00732	N	N	N			09/11/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-STRGHT	01	NONE 0	STRGHT										13
NONE						SU		SPRINGBROOK RD	NE		TRF SIGNAL	N	DRY	SS-O		PRVTE	SW-NE									000	00
						7P			05	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y		045	000	13
																							OR<25				
															02	NONE 0	STRGHT										
																PRVTE	SW-NE									000	00
																PSNGR CAR		01	DRVR	NONE	31	F	OR-Y		000	000	00
																							OR<25				
01087	N	N	N			12/23/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	BACK										10
NONE						FR		SPRINGBROOK RD	NE		TRF SIGNAL	N	DRY	REAR		UNKN	SW-NE									000	00
						5P			06	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y		011	000	10
																							UNK				
															02	NONE 0	STOP										
																PRVTE	NE-SW									011	00
																PSNGR CAR		01	DRVR	NONE	25	F	OR-Y		000	000	00
																							OR<25				
00690	N	N	N			08/11/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1TURN	01	NONE 0	STRGHT										13
NO RPT						SA		SPRINGBROOK RD	NE		TRF SIGNAL	N	DRY	TURN		PRVTE	NE-SW									000	00
						11A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	24	F	OR-Y		045	000	13
																							OR<25				
															02	NONE 0	TURN-L										
																PRVTE	NE-S									000	00
																PSNGR CAR		01	DRVR	NONE	74	M	OR-Y		000	000	00
																							OR>25				
00851	N	N	N			09/28/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NO RPT						FR		SPRINGBROOK RD	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000	00
						2P			06	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	19	M	OR-Y		026	000	07
																							OR<25				
															02	NONE 0	STOP										
																PRVTE	NE-SW									011	00
																PSNGR CAR		01	DRVR	NONE	86	M	OR-Y		000	000	00
																							OR<25				
01210	N	N	N			12/27/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										27
NO RPT						TH		SPRINGBROOK RD	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000	00
						9P			06	2		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	30	F	OR-Y		016,026	038	27
																							OR<25				
															01	NONE 0	STRGHT										
																PRVTE	NE-SW									000	00
																PSNGR CAR		02	PSNG	NO<5	04	M			000	000	00
															02	NONE 0	STOP										

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

SER# / INVEST	S P E D	A L C	R U G S	S C H L	W O R K	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
																PRVTE	NE-SW									011	00
																PSNGR CAR		01	DRVR	NONE	47	M	OR-Y OR<25		000	000	00
00766 NO RPT	N	N	N			09/02/2013 MO 5P	14	PACIFIC HY 99W SPRINGBROOK RD	INTER NE 06	CROSS 1	N TRF SIGNAL	N N	CLR DRY DAY	S-1STOP REAR INJ	01	NONE 0	STRGHT										07
																PRVTE	NE-SW									000	00
																PSNGR CAR		01	DRVR	NONE	22	F	OR-Y OR<25		026	000	07
															02	NONE 0	STOP										
																PRVTE	NE-SW									011	00
																PSNGR CAR		01	DRVR	INJC	52	F	OR-Y OR<25		000	000	00
															02	NONE 0	STOP										
																PRVTE	NE-SW									011	00
																PSNGR CAR		02	PSNG	INJC	17	F			000	000	00
00947 NONE	N	N	N			10/26/2013 SA 10A	14	PACIFIC HY 99W SPRINGBROOK RD	INTER NE 06	CROSS 0	N L-GRN-SIG	N N	CLR DRY DAY	S-1STOP REAR INJ	01	NONE 0	TURN-L										07
																PRVTE	NE-S									000	00
																PSNGR CAR		01	DRVR	NONE	48	M	OR-Y OR>25		026	000	07
															02	NONE 0	STOP										
																PRVTE	NE-SW									012	00
																PSNGR CAR		02	PSNG	INJC	23	F			000	000	00
00124 CITY	Y	N	N	N	N	02/19/2011 SA 2P	14	PACIFIC HY 99W SPRINGBROOK RD	INTER E 05	CROSS 2	N TRF SIGNAL	N N	CLD DRY DAY	ANGL-OTH TURN PDO	01	NONE 0	U-TURN										08,01
																PRVTE	E -E									000	00
																PSNGR CAR		01	DRVR	NONE	32	M	OR-Y OR<25		008	000	08,01
															02	NONE 0	TURN-R										
																PRVTE	S -E									016	00
																PSNGR CAR		01	DRVR	NONE	17	M	OR-Y OR<25		000	000	00
00711 CITY	N	N	N	N	N	09/02/2011 FR 4P	14	PACIFIC HY 99W SPRINGBROOK RD	INTER E 06	CROSS 0	N TRF SIGNAL	N N	CLR DRY DAY	S-1STOP REAR PDO	01	POLCE	STRGHT										07
																PRVTE	E -W									000	00
																PSNGR CAR		01	DRVR	NONE	39	M	OR-Y OR<25		026	000	07
															02	NONE 1	STOP										
																PRVTE	E -W									011	00
																PSNGR CAR		01	DRVR	NONE	41	F	OR-Y OR<25		000	000	00
00178 NONE	N	N	N			02/24/2012 FR 9P	14	PACIFIC HY 99W SPRINGBROOK RD	INTER E 06	CROSS 2	N TRF SIGNAL	N N	CLR DRY DARK	S-1STOP REAR PDO	01	NONE 0	STRGHT										07
																PRVTE	E -W									000	00
																PSNGR CAR		01	DRVR	NONE	50	M	OR-Y OR<25		026	000	07
															02	NONE 0	STOP										
																PRVTE	E -W									011	00
																PSNGR CAR		01	DRVR	NONE	65	F	OR-Y OR<25		000	000	00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

PACIFIC HY 99W at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 70

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL	WORK	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00125	N	N	N			02/19/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
CITY						TU		SPRINGBROOK RD	E		TRF SIGNAL	N	WET	REAR		PRVTE	E -W									000		00
						7A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	25	F	OR-Y OR<25		026	000		07
															02	NONE 0	STOP											
																PRVTE	E -W									011		00
																PSNGR CAR		01	DRVR	INJC	38	M	OR-Y OR<25		000	000		00
00667	N	N	N			07/31/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											32
CITY						WE		SPRINGBROOK RD	E		NONE	N	DRY	REAR		PRVTE	E -W									000		00
						3P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	59	M	OR-Y OR<25		052,026	000		32
															02	NONE 0	STOP											
																PRVTE	E -W									011	013	00
																PSNGR CAR		01	DRVR	INJC	50	M	OR-Y OR<25		000	000		00
															03	NONE 0	STOP											
																PRVTE	E -W									011		00
																PSNGR CAR		01	DRVR	INJC	52	F	OR-Y OR<25		000	000		00
00845	N	N	N			09/26/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NO RPT						TH		SPRINGBROOK RD	E		TRF SIGNAL	N	WET	REAR		PRVTE	E -W									000		00
						5P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	23	F	OR-Y OR<25		026	000		07
															02	NONE 0	STOP											
																PRVTE	E -W									011		00
																MTRCYCLE		01	DRVR	INJC	42	M	OR-Y OR<25		000	000		00
00745	N	N	N	N	N	09/25/2009	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	BIKE	01	NONE 0	TURN-R											02
CITY						FR		SPRINGBROOK RD	S		TRF SIGNAL	N	DRY	TURN		PRVTE	S -NE									016		00
						2P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	55	M	OR-Y OR<25		027	000		02
																- STRGHT SW NE		01	BIKE	INJC	33	M		I XWLK	000	035		00
01195	N	N	N			12/21/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	S-1STOP	01	POLCE 0	STRGHT											07
STATE						FR		SPRINGBROOK RD	S		TRF SIGNAL	N	WET	REAR		PUBLC	S -N									000		00
						9A			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	28	M	OR-Y OR<25		026	000		07
															02	NONE 0	STOP											
																PRVTE	S -N									011		00
																PSNGR CAR		01	DRVR	INJC	35	F	OR-Y OR<25		000	000		00
00064	N	N	N	N	N	01/21/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						FR 0		SPRINGBROOK RD	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000		00
						4P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	OR-Y OR<25		026	000		07
															02	NONE 0	STOP											
																PRVTE	S -N									011		00
																PSNGR CAR		01	DRVR	NONE	36	F	OR-Y		000	000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

SER# / INVEST	SPE	ALC	DRS	WCL	OHR	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES OR<25	PED LOC	ERROR	ACT	EVENT	CAUSE
00790	N	N	N	N	N	09/30/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
CITY						FR	0	SPRINGBROOK RD	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000		00
						3P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	32	F	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	S -N									011		00
																PSNGR CAR		01	DRVR	NONE	31	F	OR-Y		000	000		00
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	S -N									011		00
																PSNGR CAR		02	PSNG	NO<5	02	F			000	000		00
00604	N	N	N			07/17/2012	16	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT												07
NONE						TU	0	SPRINGBROOK RD	S		TRF SIGNAL	N	WET	REAR		PRVTE	S -N									000		00
						11A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	UNK		026	000		07
																							UNK					
															02	NONE 0	STOP											
																PRVTE	S -N									011		00
																PSNGR CAR		01	DRVR	NONE	62	F	OR-Y		000	000		00
																							OR<25					
00066	N	N	N	N	N	01/20/2009	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												32,07
CITY						TU		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						10A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	32	M	OR-Y		052,026	000		32,07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	NONE	43	M	OTH-Y		000	000		00
																							N-RES					
00548	N	N	N			07/01/2009	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NO RPT						WE		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						11A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	22	M	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	INJC	28	M	OR-Y		000	000		00
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		02	PSNG	INJC	22	M			000	000		00
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		03	PSNG	NO<5	02	F			000	000		00
00743	N	N	N			09/25/2009	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
CITY						FR		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						1P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJA	29	F	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

PACIFIC HY 99W at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 70

SER# / INVEST	SPEED	ALCHL	DRUGS	SCHL	WORK	DAY OF WEEK / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES / LOC	PED ERROR	ACT EVENT	CAUSE
																PSNGR CAR		01	DRVR	INJC	42	M	OR-Y OR<25		000	000	00
00776	N	N	N	N	N	10/21/2009	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT										33,07
CITY						WE		SPRINGBROOK RD	SW		TRF SIGNAL	N	SNO	REAR		PRVTE	SW-NE									000	00
						9A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	49	M	OR-Y OR<25	051,026	000	33,07
															02	NONE 0	STOP									
																PRVTE	SW-NE								011	00
																PSNGR CAR		01	DRVR	INJC	49	F	OR-Y OR<25	000	000	00
00826	N	N	N			10/08/2009	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										27,07
NONE						TH		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE								000	00
						3P			06	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	76	F	OR-Y OR<25	016,026	000	27,07
															02	NONE 0	STOP									
																PRVTE	SW-NE								011	00
																PSNGR CAR		01	DRVR	NONE	31	M	OR-Y OR<25	000	000	00
86584	N	N	N			12/16/2009	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT										07
NO RPT						WE		SPRINGBROOK RD	SW		TRF SIGNAL	N	WET	REAR		PRVTE	SW-NE								000	00
						11A			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	71	M	OR-Y OR<25	026	000	07
															02	NONE 0	STOP									
																PRVTE	SW-NE								011	00
																PSNGR CAR		01	DRVR	INJC	54	F	OR-Y OR<25	000	000	00
00236	N	N	N			03/26/2010	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NONE						FR		SPRINGBROOK RD	SW		TRF SIGNAL	N	WET	REAR		PRVTE	SW-NE								000	00
						12P			06	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	59	M	OR-Y OR>25	014	000	07
															02	NONE 0	STOP									
																PRVTE	SW-NE								011	00
																PSNGR CAR		01	DRVR	NONE	21	F	OR-Y OR<25	000	000	00
00830	N	N	N			09/24/2010	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	STRGHT										07
NONE						FR		SPRINGBROOK RD	SW		UNKNOWN	N	DRY	REAR		PRVTE	SW-NE								000	00
						12P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	UNK OR<25	026	000	07
															02	NONE 0	STOP									
																PRVTE	SW-NE								011	00
																PSNGR CAR		01	DRVR	NONE	29	F	OR-Y OR<25	000	000	00
00961	N	N	N			11/05/2010	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NO RPT						FR		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE								000	00
						2P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	35	F	OR-Y OR>25	014	000	07
															02	NONE 0	STOP									
																PRVTE	SW-NE								011	00
																PSNGR CAR		01	DRVR	INJC	38	M	OTH-Y N-RES	000	000	00
															02	NONE 0	STOP									

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

SER# / INVEST	S P E D	A L C	R U G S	S C H L	W O R K	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
																PRVTE	SW-NE										011		00
																PSNGR CAR		02	PSNG	INJC	35	F			000	000		00
01177	N	N	N			12/17/2010	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NO RPT						FR		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						4P			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	59	F	OR-Y		014	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	NONE	43	F	OR-Y		000	000		00
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		02	PSNG	INJC	43	M			000	000		00
01065	N	N	N			12/03/2010	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT												07
NONE						FR		SPRINGBROOK RD	SW		TRF SIGNAL	N	WET	REAR		PRVTE	SW-NE									000		00
						7P			06	2		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	15	F	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	INJC	17	F	OR-Y		000	000		00
																							OR<25					
00507	N	N	N			06/20/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											013	07
NO RPT						MO		SPRINGBROOK RD	SW		UNKNOWN	N	DRY	REAR		PRVTE	SW-NE									000		00
						3P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	59	F	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011	013	00
																PSNGR CAR		01	DRVR	NONE	51	M	OTH-Y		000	000		00
																							N-RES					
															03	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	NONE	31	F	OR-Y		000	000		00
																							OR<25					
01023	N	N	N			12/06/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NONE						TU		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						2P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	UNK		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	NONE	72	M	OR-Y		000	000		00
																							OR<25					
01058	N	N	N			12/15/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT												07
NONE						TH		SPRINGBROOK RD	SW		TRF SIGNAL	N	WET	REAR		PRVTE	SW-NE									000		00
						8A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	25	M	OR-Y		026	000		07
																							OR>25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	NONE	40	M	OR-Y		000	000		00
																							OR<25					

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

PACIFIC HY 99W at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 70

SER# / INVEST	S P E D	A L C	D R U G	S L	W C H	O R K	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00066	N	N	N				01/21/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	ANGL-STP	01	NONE 0	TURN-L											13
NO RPT							SA		SPRINGBROOK RD	SW		UNKNOWN	N	DRY	TURN		PRVTE	SW-N									000		00
							9P			06	0		N	DARK	PDO		PSNGR CAR		01	DRVR	NONE	17	F	OR-Y		045	000		13
																								OR<25					
																02	NONE 0	STOP											
																	PRVTE	SW-NE									012		00
																	PSNGR CAR		01	DRVR	NONE	57	M	OR-Y		000	000		00
																								OR<25					
00818	N	N	N				09/21/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										124	07
NONE							FR		SPRINGBROOK RD	SW		TRF SIGNAL	N	WET	REAR		PRVTE	SW-NE									000	124	00
							3P			06	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	19	M	OR-Y		026	000		07
																								OR<25					
																02	NONE 0	STOP											
																	PRVTE	SW-NE									011		00
																	PSNGR CAR		01	DRVR	NONE	26	F	OR-Y		000	000		00
																								OR<25					
00868	N	N	N	N	N		10/02/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
CITY							TU		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
							5P			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	44	M	OR-Y		043	000		07
																								OR<25					
																02	NONE 0	STOP											
																	PRVTE	SW-NE									011		00
																	PSNGR CAR		01	DRVR	INJC	41	M	OR-Y		000	000		00
																								OR<25					
																02	NONE 0	STOP											
																	PRVTE	SW-NE									011		00
																	PSNGR CAR		02	PSNG	INJC	39	F			000	000		00
00873	N	N	N				10/03/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE							WE		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
							12P			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	20	F	OTH-Y		026	000		07
																								OR<25					
																02	NONE 0	STOP											
																	PRVTE	SW-NE									011		00
																	PSNGR CAR		01	DRVR	INJC	41	M	OR-Y		000	000		00
																								OR<25					
00888	Y	N	N				10/07/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										093	01
NO RPT							SU		SPRINGBROOK RD	SW		L-GRN-SIG	N	DRY	REAR		PRVTE	SW-NE									000		00
							12P			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	24	M	OR-Y		047	088	093	01
																								OR>25					
																02	NONE 0	STOP											
																	PRVTE	SW-NE									012		00
																	PSNGR CAR		01	DRVR	INJC	69	M	OTH-Y		000	000		00
																								N-RES					
																02	NONE 0	STOP											
																	PRVTE	SW-NE									012		00
																	PSNGR CAR		02	PSNG	INJC	65	F			000	000		00
00987	N	N	N				11/01/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 0	TURN-L											08,02
NO RPT							TH		SPRINGBROOK RD	SW		L-GRN-SIG	N	WET	TURN		PRVTE	S -SW									000		00
							7A			05	0		N	DAWN	PDO		SCHL BUS		01	DRVR	NONE	58	M	OR-Y		007,028	000		08,02

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

SER# / INVEST	S P E D	A L C	D R U G	S W C H	O R K	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
																							OR<25					
															02	NONE 0	TURN-L										
																PRVTE	S -SW									000	00
																PSNGR CAR		01	DRVR	NONE	48	M	OR-Y		000	000	00
																							OR<25				
00278	N	N	N	N	N	04/04/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT										07
CITY						TH		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000	00
						7A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	47	M	OR-Y		026	000	07
																							OR<25				
															02	NONE 0	STOP										
																PRVTE	SW-NE									011	00
																PSNGR CAR		01	DRVR	INJC	39	M	OR-Y		000	000	00
																							OR<25				
00294	N	N	N			04/09/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NO RPT						TU		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000	00
						1P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	25	F	OR-Y		026	000	07
																							OR<25				
															02	NONE 0	STOP										
																PRVTE	SW-NE									011	00
																PSNGR CAR		01	DRVR	NONE	55	M	OR-Y		000	000	00
																							OR<25				
00460	N	N	N			06/04/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
CITY						TU		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000	00
						7A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	62	M	OR-Y		026	000	07
																							OR<25				
															02	NONE 0	STOP										
																PRVTE	SW-NE									011	00
																PSNGR CAR		01	DRVR	INJC	44	M	OR-Y		000	000	00
																							OR<25				
00545	N	N	N			06/26/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NONE						WE		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000	00
						9A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	UNK		026	000	07
																							UNK				
															02	NONE 0	STOP										
																PRVTE	SW-NE									011	00
																PSNGR CAR		01	DRVR	NONE	46	F	OR-Y		000	000	00
																							OR<25				
00688	N	N	N			08/06/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	UNK	S-1STOP	01	NONE	STRGHT										07
NONE						TU		SPRINGBROOK RD	SW		TRF SIGNAL	N	UNK	REAR		PRVTE	SW-NE									000	00
						3P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	18	M	OR-Y		026	000	07
																							OR<25				
															02	NONE 0	STOP										
																PRVTE	SW-NE									011	00
																PSNGR CAR		01	DRVR	NONE	51	M	OR-Y		000	000	00
																							OR<25				
01203	N	N	N			12/31/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NO RPT						TU		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000	00
						5P			06	2		N	DUSK	INJ		PSNGR CAR		01	DRVR	NONE	41	F	OR-Y		026	000	07
																							OR<25				
															02	NONE 0	STOP										
																PRVTE	SW-NE									011	00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

PACIFIC HY 99W at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 70

SER# / INVEST	S P E D	A L C	R U G	S C H	W O R K	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
																PSNGR CAR		01	DRVR	INJC	61	F	OR-Y		000	000	00
																							OR<25				
															02	NONE 0	STOP										
																PRVTE	SW-NE								011		00
																PSNGR CAR		02	PSNG	INJC	59	M			000	000	00
00038	Y	N	N			01/12/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	S-STRGHT	01	NONE 0	STRGHT											01
NONE						WE		SPRINGBROOK RD	W		TRF SIGNAL	N	WET	REAR		PRVTE	W -E								000		00
						5P			06	0		N	DARK	INJ		PSNGR CAR		01	DRVR	NONE	58	F	OR-Y		042	000	01
																							OR<25				
															02	NONE 0	STRGHT										
																PRVTE	W -E								000		00
																PSNGR CAR		01	DRVR	INJC	47	F	OR-Y		000	000	00
																							OR<25				
00168	N	N	N			03/02/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	UNK	S-1STOP	01	NONE	STRGHT											07,27
NONE						WE		SPRINGBROOK RD	W		UNKNOWN	N	UNK	REAR		PRVTE	W -E								000		00
						4P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	34	M	OR-Y		026	000	07,27
																							OR<25				
															02	NONE 0	STOP										
																PRVTE	W -E								011		00
																PSNGR CAR		01	DRVR	NONE	35	M	OR-Y		000	000	00
																							OR<25				
00493	Y	N	N			07/01/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											01
CITY						FR		SPRINGBROOK RD	W		TRF SIGNAL	N	DRY	REAR		PRVTE	E -W								000		00
						12P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		026	000	01
																							UNK				
															02	NONE 0	STOP										
																PRVTE	E -W								011		00
																PSNGR CAR		01	DRVR	NONE	37	F	OR-Y		000	000	00
																							OR<25				
															02	NONE 0	STOP										
																PRVTE	E -W								011		00
																PSNGR CAR		02	PSNG	NO<5	01	M			000	000	00
00686	N	N	N			08/24/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	STRGHT											07
NONE						WE		SPRINGBROOK RD	W		UNKNOWN	N	DRY	REAR		PRVTE	W -E								000		00
						4P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	52	F	OR-Y		026	000	07
																							OR<25				
															02	NONE	STOP										
																PRVTE	W -E								011		00
																PSNGR CAR		01	DRVR	NONE	34	F	OR-Y		000	000	00
																							OR<25				
00248	N	N	N			03/19/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT									013		27
NO RPT						MO		SPRINGBROOK RD	W		TRF SIGNAL	N	WET	REAR		PRVTE	W -E								000		00
						7A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	29	M	OR-Y		026	000	07
																							OR<25				
															02	NONE	STOP										
																PRVTE	W -E								011	013	00
																PSNGR CAR		01	DRVR	NONE	73	M	OR-Y		000	000	00
																							OR<25				
															03	NONE 0	STOP										

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

PACIFIC HY 99W at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 70

SER# / INVEST	S P E D	A L C	R U G S	S C H L	W O R K	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
																PRVTE	W -E									011	00
																PSNGR CAR		01	DRVR	NONE	61	M	OR-Y		000	000	00
																							OR<25				
00138	N	N	N			02/21/2013	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NONE						TH		SPRINGBROOK RD	W		YIELD	N	DRY	REAR		PRVTE	W -E									000	00
						3P			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	00	M	UNK		026	000	07
																							OR>25				
															02	NONE 0	STOP										
																PRVTE	W -E									011	00
																PSNGR CAR		01	DRVR	INJC	32	M	OR-Y		000	000	00
																							OR>25				
00146	N	N	N			02/19/2009	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	TURN-R										04
NONE						TH		SPRINGBROOK RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	SW-S									000	00
						6P			03	2		Y	DARK	PDO		PSNGR CAR		01	DRVR	NONE	50	F	OR-Y		020	000	04
																							OR<25				
															02	NONE 0	STRGHT										
																PRVTE	N -S									000	00
																PSNGR CAR		01	DRVR	NONE	46	F	OR-Y		000	000	00
																							OR<25				
00430	N	N	N	N	N	06/08/2009	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	TURN-L										32,04
CITY						MO		SPRINGBROOK RD	CN		TRF SIGNAL	N	DRY	ANGL		PRVTE	N -NE									000	00
						5P			03	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	56	F	OR-Y	052,020		000	32,04
																							OR<25				
															02	NONE 0	STRGHT										
																PRVTE	SW-NE									000	00
																PSNGR CAR		01	DRVR	INJB	30	F	OR-Y	000		000	00
																							OR<25				
01182	N	N	N			12/03/2010	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-OTHER	01	NONE	TURN-L										05
NO RPT						FR		SPRINGBROOK RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	N -E									000	00
						2P			04	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	64	M	OR-Y		080	000	05
																							OR<25				
															02	NONE 0	TURN-L										
																PRVTE	N -E									000	00
																PSNGR CAR		01	DRVR	NONE	44	F	OR-Y		000	000	00
																							OR<25				
00895	N	N	N			10/19/2010	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	O-1TURN	01	NONE 0	TURN-L										04
NO RPT						TU		SPRINGBROOK RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	N -E									000	00
						8A			02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	42	F	OR-Y		020	000	04
																							OR<25				
															02	NONE 0	STRGHT										
																PRVTE	S -N									000	00
																PSNGR CAR		01	DRVR	INJC	34	F	OR-Y		000	000	00
																							OR<25				
00400	N	N	N			05/28/2011	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NO RPT						SA		SPRINGBROOK RD	CN		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000	00
						4P			03	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	68	M	OR-Y		026	000	07
																							OR>25				
															02	NONE 0	STOP										
																PRVTE	W -E									011	00
																PSNGR CAR		01	DRVR	NONE	33	F	OR-Y		000	000	00
																							OR<25				

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

PACIFIC HY 99W at SPRINGBROOK RD, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 70

SER# / INVEST	SPE	ALC	DRU	SWC	SHR	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00272	N	N	N	N	N	03/27/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 0	STRGHT											03
CITY						TU		SPRINGBROOK RD	CN		TRF SIGNAL	N	WET	ANGL		PRVTE	W -E									000		00
						9P			03	0		N	DARK	INJ		PSNGR CAR		01	DRVR	NONE	17	F	OR-Y OR<25		021	000		03
															02	NONE 0	STRGHT											
																PRVTE	N -S									000		00
																PSNGR CAR		01	DRVR	INJC	63	M	OR-Y OR<25		000	000		00
00821	N	N	N			09/21/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	O-1TURN	01	NONE 0	STRGHT											04
NO RPT						FR		SPRINGBROOK RD	CN		L-GRN-SIG	N	WET	TURN		PRVTE	NE-SW									000		00
						6A			02	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	UNK UNK		020	000		04
															02	NONE 0	TURN-L											
																PRVTE	SW-N									000		00
																PSNGR CAR		01	DRVR	NONE	22	M	OR-Y OR<25		000	000		00
00922	N	N	N	N	N	10/15/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 0	STRGHT											02
CITY						MO		SPRINGBROOK RD	CN		TRF SIGNAL	N	WET	ANGL		PRVTE	W -E									000		00
						7P			03	2		N	DARK	PDO		PSNGR CAR		01	DRVR	NONE	65	M	OR-Y OR<25		028	000		02
															02	NONE 0	STRGHT											
																PRVTE	N -S									015		00
																PSNGR CAR		01	DRVR	NONE	56	M	OR-Y OR<25		000	000		00
01045	N	N	N			11/15/2012	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT										092	07,14
NONE						TH		SPRINGBROOK RD	CN		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000		00
						3P			02	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	25	F	OR-Y OR<25		026	000		07,14
															02	NONE 0	STOP											
																PRVTE	NE-SW									011		00
																PSNGR CAR		01	DRVR	INJC	30	M	OR-Y OR<25		000	000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

PACIFIC HY 99W at BRUTSCHER ST, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2013														
REAR-END	0	2	0	2	0	2	0	1	1	2	0	2	0	0
TURNING MOVEMENTS	0	0	2	2	0	0	0	2	0	2	0	2	0	0
YEAR 2013 TOTAL	**0**	**2**	**2**	**4**	**0**	**2**	**0**	**3**	**1**	**4**	**0**	**4**	**0**	**0**
YEAR: 2012														
REAR-END	0	3	1	4	0	4	0	3	1	4	0	4	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	0	1	1	0	0
YEAR 2012 TOTAL	**0**	**3**	**2**	**5**	**0**	**4**	**0**	**4**	**1**	**4**	**1**	**5**	**0**	**0**
YEAR: 2011														
REAR-END	0	3	0	3	0	4	0	2	1	1	2	3	0	0
YEAR 2011 TOTAL	**0**	**3**	**0**	**3**	**0**	**4**	**0**	**2**	**1**	**1**	**2**	**3**	**0**	**0**
YEAR: 2010														
PEDESTRIAN	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR 2010 TOTAL	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**
YEAR: 2009														
ANGLE	0	1	0	1	0	1	0	1	0	0	1	1	0	0
REAR-END	0	1	2	3	0	1	0	2	1	3	0	3	0	0
YEAR 2009 TOTAL	**0**	**2**	**2**	**4**	**0**	**2**	**0**	**3**	**1**	**3**	**1**	**4**	**0**	**0**
FINAL TOTAL	**0**	**11**	**6**	**17**	**0**	**13**	**0**	**13**	**4**	**13**	**4**	**17**	**0**	**0**

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

PACIFIC HY 99W at BRUTSCHER ST, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 17

SER# / INVEST	SPE	ALC	DRS	SWC	HR	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES / LOC	PED ERROR	ACT	EVENT	CAUSE
00594	N	N	N	N	N	08/07/2009	14	BRUTSCHER ST	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT						OR-Y			013	07
CITY						FR		PACIFIC HY 99W	UN		TRF SIGNAL	N	DRY	REAR		PRVTE	N -S								000		00
						8A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	53	F	OR<25	026	000		07
															02	NONE 0	STOP										
																PRVTE	N -S								011	013	00
																PSNGR CAR		01	DRVR	NONE	21	F	OR-Y OR<25	000	000		00
															03	NONE 0	STOP										
																PRVTE	N -S								011		00
																PSNGR CAR		01	DRVR	INJC	22	F	OR-Y OR<25	000	000		00
00920	N	N	N			11/25/2009	14	BRUTSCHER ST	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NONE						WE		PACIFIC HY 99W	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW								000		00
						3P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	40	M	OR-Y OR<25	026	000		07
															02	NONE 0	STOP										
																PRVTE	NE-SW								011		00
																PSNGR CAR		01	DRVR	NONE	00	Unk	UNK UNK	000	000		00
00415	N	N	N			05/19/2012	14	BRUTSCHER ST	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NO RPT						SA		PACIFIC HY 99W	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW								000		00
						10A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	31	M	OR-Y OR<25	026	000		07
															02	NONE 0	STOP										
																PRVTE	NE-SW								011	013	00
																PSNGR CAR		01	DRVR	NONE	36	F	OR-Y OR<25	000	000		00
															03	NONE 0	STOP										
																PRVTE	NE-SW								011		00
																PSNGR CAR		01	DRVR	INJC	38	M	OR-Y OR<25	000	000		00
00518	N	N	N			06/22/2012	14	BRUTSCHER ST	INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT										27
NO RPT						FR		PACIFIC HY 99W	NE		TRF SIGNAL	N	WET	REAR		PRVTE	NE-SW								000		00
						4P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	20	F	OR-Y OR<25	026	000		27
															02	NONE 0	STOP										
																PRVTE	NE-SW								011		00
																PSNGR CAR		01	DRVR	INJC	42	F	OR-Y OR<25	000	000		00
00907	N	N	N			10/04/2012	14	BRUTSCHER ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NONE						TH		PACIFIC HY 99W	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW								000		00
						5P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	26	M	OR-Y OR<25	026	000		07
															02	NONE 0	STOP										
																PRVTE	NE-SW								011		00
																PSNGR CAR		01	DRVR	NONE	40	M	OR-Y OR<25	000	000		00
00829	N	N	N			09/23/2013	14	BRUTSCHER ST	INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT										07
NONE						MO		PACIFIC HY 99W	NE		TRF SIGNAL	N	WET	REAR		PRVTE	NE-SW								000		00
						2P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	40	F	OR-Y	026	000		07

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

PACIFIC HY 99W at BRUTSCHER ST, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 17

SER# / INVEST	S P E D	A L C	U G S	C H L	O R K	W DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	NE-SW									011		00
																PSNGR CAR		01	DRVR	INJC	71	M	OR-Y		000	000		00
																							OR<25					
00661	N	N	N			08/18/2011	14	BRUTSCHER ST	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										013	32
NO RPT						TH		PACIFIC HY 99W	E		UNKNOWN	N	DRY	REAR		PRVTE	E -W								000		00
						5P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJB	35	F	OR-Y		052,026	000		32
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	E -W									011	013	00
																PSNGR CAR		01	DRVR	INJC	43	M	OR-Y		000	000		00
																							OR<25					
															03	NONE 0	STOP											
																PRVTE	E -W									011		00
																PSNGR CAR		01	DRVR	NONE	59	M	OR-Y		000	000		00
																							OR<25					
01136	N	N	N	N	N	12/21/2010	14	BRUTSCHER ST	INTER	3-LEG	N	N	CLD	PED	01	NONE 0	TURN-L											02
CITY						TU		PACIFIC HY 99W	SW		TRF SIGNAL	Y	DRY	PED		PRVTE	SE-SW									000		00
						9A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	33	M	OTH-Y		029	000		02
																							N-RES					
																	-											
																	STRGHT	01	PED	INJA	60	F		I XWLK	000	035		00
																	SE NW											
00469	N	N	N	N	N	06/11/2012	14	BRUTSCHER ST	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											27
CITY						MO		PACIFIC HY 99W	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						10A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	22	F	OR-Y		026	000		27
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		01	DRVR	INJB	46	F	OR-Y		000	000		00
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00
																PSNGR CAR		02	PSNG	INJB	25	F			000	000		00
01018	N	N	N			11/09/2012	14	BRUTSCHER ST	INTER	CROSS	N	N	CLD	ANGL-STP	01	NONE 0	TURN-L										092	32,27
CITY						FR		PACIFIC HY 99W	SW		TRF SIGNAL	N	DRY	TURN		PRVTE	SE-SW								000		00
						5P			05	0		N	DUSK	PDO		PSNGR CAR		01	DRVR	NONE	44	M	OR-Y		052,016	038		32,27
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	NE-SW									011	092	00
																PSNGR CAR		01	DRVR	NONE	71	M	OR-Y		000	000		00
																							OR<25					
00585	N	N	N	N	N	07/09/2013	14	BRUTSCHER ST	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
CITY						TU		PACIFIC HY 99W	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
						6A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	50	M	OR-Y		026	000		07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SW-NE									011		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

PACIFIC HY 99W at BRUTSCHER ST, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 17

SER# / INVEST	SPEED	ALCOHOL	DRUGS	CMV	SCHOOL BUS	WORK ZONE	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
																	PSNGR CAR		01	DRVR	INJC	36	M	OR-Y OR<25		000	000	00
00800	N	N	N				10/30/2009	14	BRUTSCHER ST	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE	STRGHT											07,27
NONE							FR		PACIFIC HY 99W	W		TRF SIGNAL	N	SNO	REAR		PRVTE	W -E									000		00
							9A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	43	M	OR-Y OR<25		026	000	07,27
																01	NONE	STRGHT											
																	PRVTE	W -E									000		00
																	PSNGR CAR		02	PSNG	NO<5	03	F			000	000	00
																02	NONE 0	STOP											
																	PRVTE	W -E									011		00
																	PSNGR CAR		01	DRVR	NONE	00	M	OR-Y OR<25		000	000	00
00045	N	N	N	N	N		01/14/2011	14	BRUTSCHER ST	INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
CITY							FR		PACIFIC HY 99W	W		TRF SIGNAL	N	WET	REAR		PRVTE	W -E									000		00
							5P			06	0		N	DARK	INJ		PSNGR CAR		01	DRVR	NONE	23	M	OR-Y OR<25		026	000	07
																02	NONE 0	STOP											
																	PRVTE	W -E									011		00
																	PSNGR CAR		01	DRVR	INJC	22	F	OR-Y OR>25		000	000	00
01005	N	N	N				11/07/2011	14	BRUTSCHER ST	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE							MO		PACIFIC HY 99W	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000		00
							5P			06	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	42	F	OR-Y OR>25		026	000	07
																02	NONE 0	STOP											
																	PRVTE	W -E									011		00
																	PSNGR CAR		01	DRVR	INJC	31	M	OR-Y OR>25		000	000	00
00063	N	N	N	N	N		01/18/2009	14	BRUTSCHER ST	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT											04
CITY							SU		PACIFIC HY 99W	CN		TRF SIGNAL	N	DRY	ANGL		PRVTE	W -E									000		00
							11P			04	0		N	DARK	INJ		PSNGR CAR		01	DRVR	NONE	18	F	OR-Y OR<25		020	000	04
																02	NONE 0	TURN-L											
																	PRVTE	S -W									000		00
																	PSNGR CAR		01	DRVR	INJB	16	M	OR-Y OR<25		000	000	00
00375	N	N	N				05/05/2013	14	BRUTSCHER ST	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	U-TURN											08
NO RPT							SU		PACIFIC HY 99W	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	S -S									000		00
							12P			01	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	63	M	OR-Y OR<25		008	000	08
																02	NONE 0	STRGHT											
																	PRVTE	E -W									000		00
																	PSNGR CAR		01	DRVR	NONE	46	F	OR-Y OR<25		000	000	00
00740	N	N	N				08/23/2013	14	BRUTSCHER ST	INTER	3-LEG	N	N	CLR	O-1TURN	01	NONE 0	STRGHT										002	04,27
NO RPT							FR		PACIFIC HY 99W	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	W -E									000		00
							1P			01	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	31	F	OR-Y OR<25		020	000	002	04,27
																01	NONE 0	STRGHT											

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

PACIFIC HY 99W at BRUTSCHER ST, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 17

SER# / INVEST	S P E D	A L C	U G S	C H L	O R K	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
																PRVTE	W -E									000	00
																PSNGR CAR		02	PSNG	NO<5	01	M			000	000	00
															02	NONE 0	TURN-L										
																PRVTE	S -W									000	00
																PSNGR CAR		01	DRVR	NONE	23	F	OR-Y OR<25		000	000	00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

ATTACHMENT 4

SPRINGBROOK RD at HAYES ST, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

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

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD at HAYES ST, City of Newberg, Yamhill County, 01/01/2009 to 12/31/2013

Total crash records: 1

SER# / INVEST	S P E D	A L C	R U G S	S C H L	W O R K	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR / OWNER	QTY / MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00830	N	N	N	N	N	09/23/2013	16	HAYES ST	INTER	3-LEG	N	N	CLD	S-1STOP	01	NONE	0											07
CITY						MO	0	SPRINGBROOK RD	N		TRF SIGNAL	N	SNO	REAR		PRVTE	STRGHT											00
						8A			06	0		N	DAY	INJ		PSNGR CAR	N -S	01	DRVR	NONE	48	F	OR-Y		026	000		07
																							OR<25					
															02	NONE	0											
																PRVTE	STOP									011		00
																PSNGR CAR	N -S	01	DRVR	INJC	37	F	OR-Y		000	000		00
																							OR<25					

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

APPENDIX G

SIGNAL PLANS AND TIMING PLANS

12257

SIGNAL PLAN
PACIFIC HWY W AT SPRINGBROOK ST.
HWY. 1W MP. 22.03

METRIC

NOTE:
SIGNAL PLANS ARE REVERSED FROM ROADWAY PLANS

POLE NO. 2
Sta. 23+815.5, 15.8m Rt.

POLE NO. 3
Sta. 23+772.9, 18.1m Rt.

POLE NO. 1
Sta. 23+819.5, 17.6m Lt

POLE NO. 4
Sta. 23+777.4, 16m Lt.

SCALE 0 5 10 METERS 20

BIKE LANE

PACIFIC HIGHWAY WEST

SPRINGBROOK ST.

R/W

23+840

23+820

23+800

Approx. 30m

Note:
For legend see sheet no. 12258

Note:
Field verify pole locations.
(Stations and offsets are approximate.)

OREGON PROFESSIONAL ENGINEER
PTE 015
Harlan L. Naegeli
Mar. 16 1988
TRAFFIC
Exp. 12/31/2002

OREGON DEPARTMENT OF TRANSPORTATION
TRAFFIC MANAGEMENT SECTION

TRAFFIC SIGNAL INSTALLATION
BRUTCHER ST. - EVEREST ST. &
EVEREST ST. - MAIN ST. (NEWBERG) SECS.
PACIFIC HIGHWAY WEST
YAMHILL COUNTY

DATE November 2000
DESIGNED BY: H.Naegeli
CHECKED BY: T.Jenkins
DRAWN BY: H.Naegeli

A4 070221r3.sgl

T.A.S. ENG. NO. 12257

VIEW=A4

12259

METRIC

DETECTOR PLAN
PACIFIC HWY W AT SPRINGBROOK ST.
HWY. 1W MP.22.03

SCALE 0 10 20 METERS 40

SPRINGBROOK RD.

PACIFIC HIGHWAY WEST

(No Scale)

REMOVAL PLAN

Remove entire existing Traffic Signal Installation and all appertenances.

N

SPRINGBROOK ST.

BIKE LANE

PACIFIC HIGHWAY WEST

(99W)

23+840

23+800

20m 4m 1m 15m 20m

Locate 70m from STOP LINE

Locate 45m from STOP LINE

Locate 35m from STOP LINE

Locate 35m from STOP LINE

Locate 45m from STOP LINE

Locate 70m from STOP LINE

Note:
For legend see sheet no. 12260

NOTE:
SIGNAL PLANS ARE REVERSED FROM ROADWAY PLANS

OREGON PROFESSIONAL PTE 015 Harlan L. Naegeli Mar. 16 1988 TRAFFIC ENGINEER

Exp. 12/31/2002

OREGON DEPARTMENT OF TRANSPORTATION
TRAFFIC MANAGEMENT SECTION

TRAFFIC SIGNAL INSTALLATION
BRUTCHER ST. - EVEREST ST. &
EVEREST ST. - MAIN ST. (NEWBERG) SECS.
PACIFIC HIGHWAY WEST
YAMHILL COUNTY

DATE November 2000
DESIGNED BY: H.Naegeli
CHECKED BY: T.Jenkins
DRAWN BY: H.Naegeli

B3 07022tr3.sg1

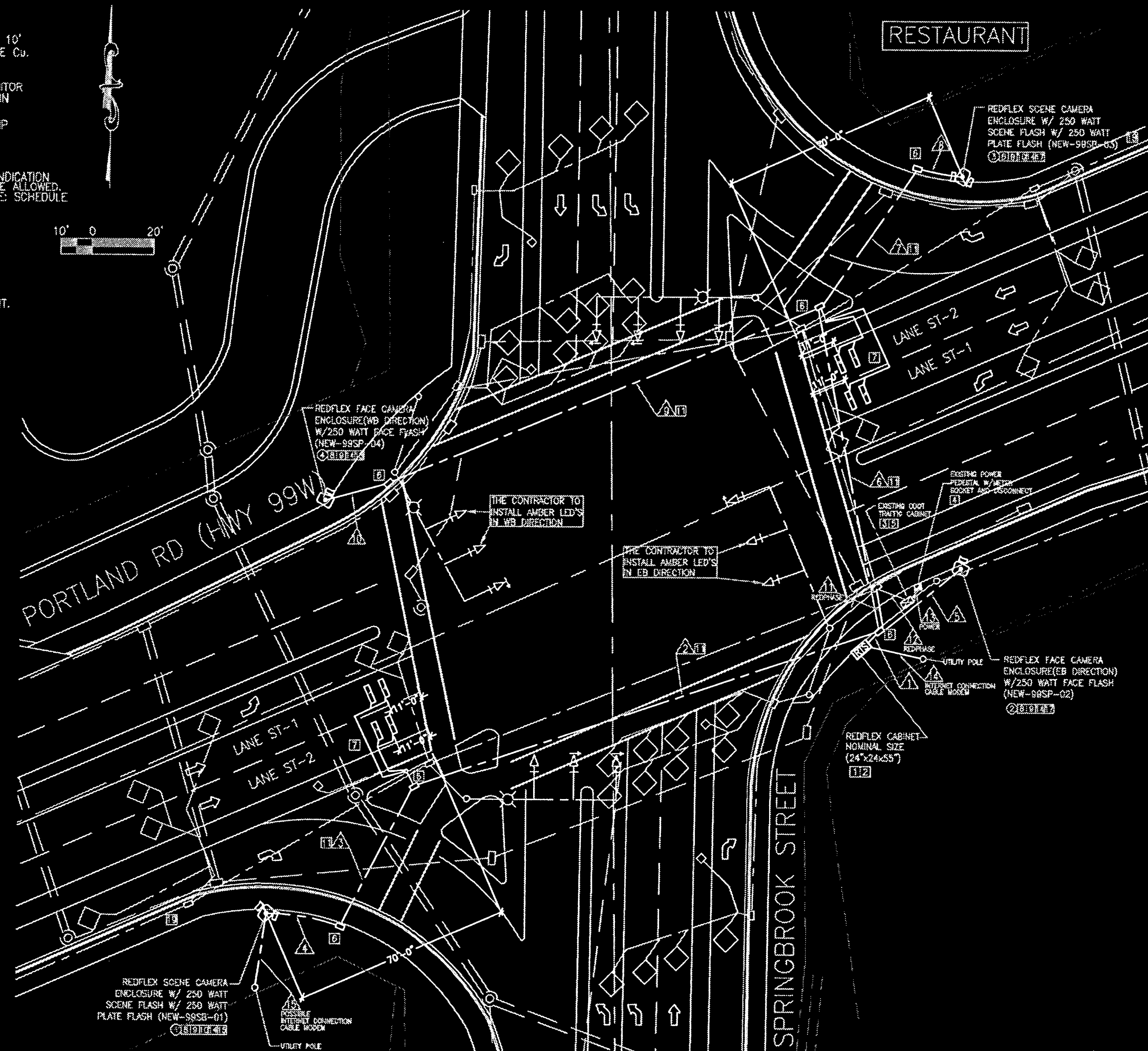
T.M.S. DWG. NO. 12259

VIEWER

14274

CONSTRUCTION NOTES

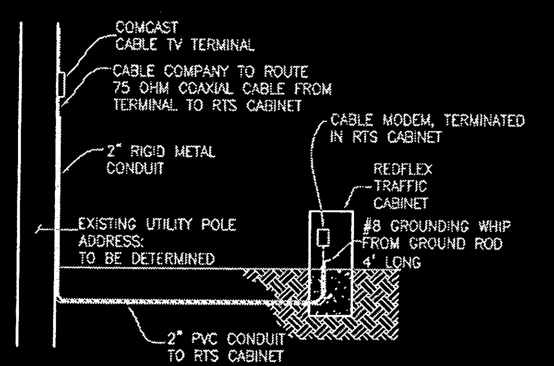
1. INSTALL FOUNDATION AND REDFLEX CONTROL CABINET. INSTALL 3/4"x 10' GROUND ROD AND BOND TO CABINET AND POLE BASES WITH #6 BARE Cu. SEE CABINET FOUNDATION DETAIL.
2. CONTRACTOR SHALL TERMINATE AND LAND ALL POWER CIRCUITS INTO REDFLEX CABINET (AN ODOT ELECTRICIAN SHALL BE ON-SITE TO MONITOR CONTRACTORS WORK AND RESPOND TO THE TRAFFIC SIGNAL OPERATION IN THE EVENT IS NEEDED)
3. INSTALL INLINE FUSE HOLDER ON RED PHASE CONDUCTOR WITH 5 AMP FUSE INSIDE REDFLEX CABINET, TO PROTECT ODOT TRAFFIC CABINET.
4. INSTALL 40 AMP CIRCUIT BREAKER INTO EXISTING POWER PANEL FOR 120V SUPPLY TO REDFLEX CABINET.
5. INSTALL SOLID STATE RELAY (SSR) DEVICE ON EACH SEPARATE RED INDICATION IN ODOT CABINET. NO DIRECT CONNECTION TO RED PHASING SHALL BE ALLOWED. SEE CONDUCTOR SCHEDULE FOR APPROACHES AND SEE DETAIL. (NOTE: SCHEDULE CONTROLLER CABINET ACCESS WITH ODOT REGION 2 ELECTRICIAN AT (503) 986-2706 AT LEAST 48 HOURS BEFORE WORK IS TO OCCUR.)
6. INSTALL JB-1(12" x 17" x 12") CONCRETE JUNCTION BOX PER ODOT STANDARDS
7. INSTALL LOOPS AND CONDUIT STUBOUT FOR REDFLEX DETECTION. EACH LOOP MUST HAVE A SEPARATE HOME RUN AND LOOP LEAD IN CABLE. MAXIMUM 2 LOOPS PER SAWCUT. REDFLEX LOOPS TO BE LABELED AT REDFLEX CABINET. INSTALL FOUNDATION, POLE BASE AND POLE FOR REDFLEX EQUIPMENT. SEE LOOP DETAIL AND DRAWING FOR QUANTITY AND LOOP ID#
8. SEE DRAWING FOR LOCATION. SEE POLE DETAIL.
9. INSTALL CAMERA ENCLOSURE AND FLASH ON REDFLEX POLE, AIM AT SIGNAL HEADS.
10. INSTALL FLASH UNIT ON REDFLEX POLE, AIM AT VIOLATION LINE.
11. CONDUIT TO BE BORED UNDER ROADWAY-30" COVER MIN.
12. INSTALL AMBER LED'S PER ODOT STANDARDS (AN ODOT ELECTRICIAN SHALL BE ON-SITE TO MONITOR CONTRACTORS WORK AND RESPOND TO THE TRAFFIC SIGNAL OPERATION IN THE EVENT IS NEEDED)
13. NOT USED
14. CONNECT POLE TO SOLID BARE BOND GROUND & GROUNDING ROD IN IN POLE FOUNDATION & TO SYSTEM GROUND BONDED BACK AT REDFLEX CAMERA.
15. EXISTING TERMINATE POLE TO REDFLEX CABINET POWER CIRCUIT #1 (HOT & NEUTRAL).
16. EXISTING TERMINATE POLE TO REDFLEX CABINET POWER CIRCUIT #2 (HOT & NEUTRAL).
17. EXISTING TERMINATE POLE TO REDFLEX CABINET POWER CIRCUIT #3 (HOT & NEUTRAL).
18. TERMINATE POLE TO REDFLEX CABINET POWER CIRCUIT #4 (HOT & NEUTRAL).
19. THE CONTRACTOR TO INSTALL ADVANCED WARNING SIGNAGE, WHICH INCLUDES SIGN PANEL, POST AND INCIDENTAL HARDWARE PER ODOT STANDARDS. SPOT SIGN AT 350' AWAY FROM VIOLATION LINE
20. NOT USED



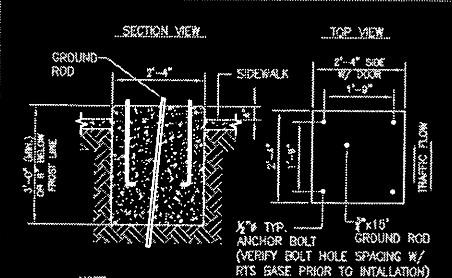
CONDUCTORS SOURCE	AWG#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	TERMINATION
POLE 1	CAT5	2	2	2	2														REDFLEX CABINET
POLE 2	CAT5	2				2													REDFLEX CABINET
POLE 3	CAT5	2					2		2										REDFLEX CABINET
POLE 4	CAT5	2								2	2								REDFLEX CABINET
CITY POWER PEDESTAL (120V)	#8	3										3	3	3					REDFLEX CABINET
TRAFFIC SIGNAL RED PHASE EB, WB (HWY 99) (1) RED, (2)SPARES, 1 NEUT	#14	4										4	4						REDFLEX CABINET
REDFLEX LOOP LEAD-IN	DLC	[illegible]	[illegible]				[illegible]												REDFLEX CABINET
POWER CIRCUIT 1 (REDFLEX CABINET)	#10	2	2	2	2														POLE 1
POWER CIRCUIT 2 (REDFLEX CABINET)	#10	2				2													POLE 2
POWER CIRCUIT 3 (REDFLEX CABINET)	#10	2					2	2	2										POLE 3
POWER CIRCUIT 4 (REDFLEX CABINET)	#10	2								2	2								POLE 4
SOLID BARE BOND	#8	1	1	1	1	1	1	1	1	1	1								ALL REDFLEX EQUIPMENT
CABLE MODEM POINT OF SERVICE	CAT5	1	1	1	1										1	1			REDFLEX CABINET
TOTAL NEW CONDUCTORS		26	6	5	5	5	6	5	5	5	5	7	7	3					
CONDUIT SIZE (INCHES)		3	3	2	2	2	3	2	2	3	2	2	2						
NEW/EXISTING CONDUIT		N	N	N	N	N	N	N	N	N	N	N	E	E					

LEGEND

- EXISTING TRAFFIC CONTROL CABINET
- POWER CABINET
- RTS REDFLEX CONTROL CABINET
- CAMERA W/FLASH
- PLATE FLASH
- REDFLEX CAMERA POLE NUMBER

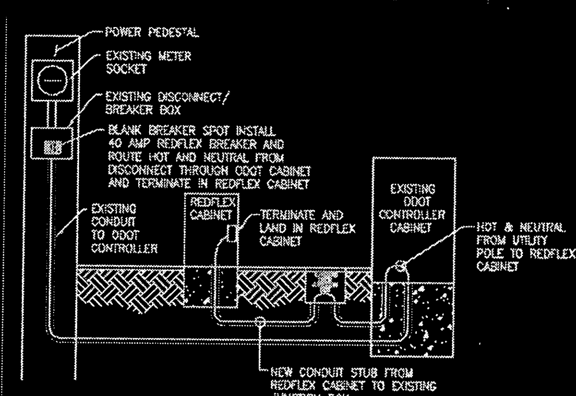


TYPICAL CABLE MODEM CONNECTION | REDFLEX CAMERA SYSTEM



NOTE: SEAL CABINET AND FOUNDATION JOINT WITH OUTDOOR GRADE SILICONE SEALANT.

CABINET FOUNDATION DETAIL | RED LIGHT CAMERA SYSTEM | SCALE: N.T.S.

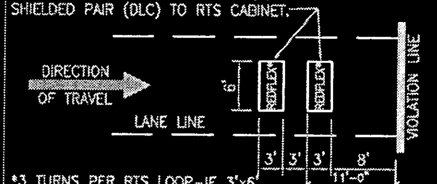


POWER SERVICE CONNECTION (TYP) | REDFLEX CAMERA SYSTEM

POLE SCHEDULE

NO.	TYPE	HEIGHT	NEW/ EXISTING
1	REDFLEX	10'	N
2	REDFLEX	10'	N
3	REDFLEX	10'	N
4	REDFLEX	10'	N

EACH LOOP PAIR IS SPLICED TO (1) SINGLE TWISTED SHIELDED PAIR (DLC) TO RTS CABINET.

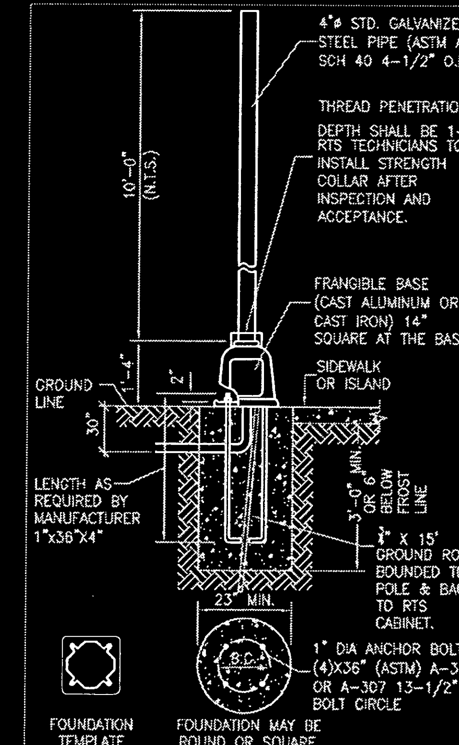


*3 TURNS PER RTS LOOP-IF 3'x6'

LOOP DIAGRAM | RED LIGHT CAMERA SYSTEM | SCALE: 1"=10'

ABREVIATIONS

- TSP — TWISTED SHIELDED PAIR
- E.O.P. — EDGE OF PAVEMENT
- A.F.G. — ABOVE FINISH GRADE
- CAT 5 — CATEGORY FIVE CABLE
- DLC — DETECTOR LOOP CABLE (SHIELDED)
- STP — SINGLE TWISTED PAIR
- L.E.D. — LIGHT EMITTING DIODE
- EB — EASTBOUND (MOVEMENT)
- WB — WEST BOUND (MOVEMENT)



POLE DETAIL | RED LIGHT CAMERA SYSTEM | SCALE: N.T.S

NO.	REVISION	DATE	BY
	REVISED AS CONSTRUCTED BY		

CITY OF NEWBERG OREGON - ENGINEERING DEPT.

REDLIGHT ENFORCMENT
PORTLAND ROAD (HWY 99W) AND SPRINGBROOK STREET

PROJECT NO. 1252
DRAWING NO. 3 of 5

Thomas Jakrin
ODOT TRAFFIC ENGINEERING AND OPERATIONS APPROVED

TEDS DRWG NO. 14274

NEED PE STAMP
↑

Intersection Name	*12 - OR99W at Springbrook*	**Local ID**	*12*
Intersection Telephone Number			
System Name	*64 - Newberg-Dundee*	**System ID**	*64*
Controller Type	*Voyage - C1-C11*		
Controller Serial Number		**Installation Date**	
Programmed by		**Programmed Date**	

Graphic Map Background	**Phase Rotation Diagram**

Control Data (next/2/2)

Controller Function and Timing (next/2/1, next/2/2)

Security, Sequence, Initialization

Security Code	****	0 = disabled, or 1000-9999
Sequence	*7*	0 = sequential, 1 = quad left turn, 2-6 = special A-E, 7 = lead lag

	Lead Lag (next/2/2/3)			
	Phases 1 - 2	**Phases 3 - 4**	**Phases 5 - 6**	**Phases 7 - 8**
	2	*2*	*2*	*2*
	0 = no reversal, 1 = reversal, 2 = by coord plan or clock			

Initialization and Flash (next/2/2/5)

	Initialization	**Flash Entry**	**Flash Exit**	
Ring 1 Phase	*1*	*0*	*1*	phase 1-8
Ring 2 Phase	*5*	*0*	*5*	phase 1-8
Interval	*0*	*0*	*0*	0 = red, 1 = yellow, 2 = green

Power up Flash	*0.0*	0.0 - 25.5 seconds		**First All Red**	*6.0*	0.0 - 25.5 seconds

Soft Flash (next/2/2/5)

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	0 = dark, 1=flash yel WIG, 2 = flash yel WAG, 3 = flash red WIG, 4 = flash red WAG				
	3	*4*	*3*	*4*	*3*	*4*	*3*	*4*					
Overlap	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	same as phase
	3	*4*	*3*	*4*	*3*	*4*	*3*	*4*	*3*	*4*	*3*	*4*	
Internal Logic Output	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	0 = normal, 1 = dark, 2 = flash WIG
	0	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	

Per Phase Functions (next/2/2/3, next/2/2/1)

	1	2	3	4	5	6	7	8	ATTACHMENT 4
Phases Used	X	X	X	X	X	X	X	X	X = on
Restricted Phases									X = on (Sequence 2, 6, 7 only)
Exclusive Phases									X = on (Sequence 7 only)
Yellow Lock									
Min Recall		X				X			
Max Recall									
Ped Recall									
Red Lock									
Max Out Recall Inhibit	X	X	X	X	X	X	X	X	X = on
Soft Recall									
Free Walk Rest									
Conditional Ped									
Disable Inhibit Max Termination									
Call to Non Act 1									
Call to Non Act 2									

Dual Entry (next/2/2/9/3)

Mode	1	0 = off, 1 = on, 2 = Not Used, 3 = by coord plan, 4 = by time clock circuit 61

Dual Entry Phase -->	1	2	3	4	5	6	7	8	
Phase	0	0	0	8	0	0	0	4	0 = none, 1-8 = phase 1-8

Conditional Service, Five Section Head

Conditional Service (next/2/2/9/3)

	Mode	CS Max Time
Phase 1	0	0
Phase 3	0	0
Phase 5	0	0
Phase 7	0	0

0 = off, 1 = C.S.On. 2 = C.S. on by TOD circuit 57, 3 = N/A, 4 = C.S. and C.R. On, 5 = C.R. on by TOD circuit 57.

5 Section Head Logic (next/2/2/9/4)

X Omits Y		Anti-Trap			Yellow Blanking LT	
		Trap Protected Phase		Next Phase	Phase	
X : Y						
6 : 1	0	1		< (5)	1	
8 : 3	0	3		< (7)	3	
2 : 5	0	5		< (1)	5	
4 : 7	0	7		< (3)	7	
0=off, 1=side call, 2=no side call		X = On				

Phase Times (next/2/2/2, next/2/2/9/5)									
	1	2	3	4	5	6	7	8	ATTACHMENT 4
Movement									
Minimum Green	4	10	4	4	4	15	4	4	0 - 255 sec
Passage	2.5	4.2	2.3	2.3	2.3	4.2	2.3	2.3	0.0 - 25.5 sec
Yellow	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0	0.0 - 25.5 sec
Red Clearance	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0 - 25.5 sec or 0 - 255 sec
Max 1	25	50	20	25	20	50	20	25	0 - 255 sec
Max 2	25	50	20	25	20	50	20	25	0 - 255 sec
Walk	0	7	0	7	0	7	0	7	0 - 255 sec
Ped Clear	0	29	0	24	0	28	0	23	0 - 255 sec
Seconds Per Actuation	0.0	0.6	0.0	0.0	0.0	0.6	0.0	0.0	0.0 - 25.5 sec
Time Before Reduction	8	10	8	8	8	10	8	8	0 - 255 sec
Time to Reduce	3	20	3	3	3	20	3	3	0 - 255 sec
Minimum Gap	1.0	2.2	0.5	0.5	0.5	2.2	0.5	0.5	0.0 - 25.5 sec
Max Variable Initial	4	15	4	6	4	15	4	6	0 - 255 sec
Auto Max Adjust	0.0	5.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0 - 25.5 sec
Auto Max Limit	0	65	0	0	0	65	0	0	0 - 255 sec
Inhibit Min Yellow									X = On
Red Decimal Off									X = On
Advance Walk	0	0	0	0	0	0	0	0	0 - 255 sec

Other Controller Functions (next/2/2/9)									
Phase -->	1	2	3	4	5	6	7	8	
Inhibit Simultaneous Gap Out	X		X	X	X		X	X	X = On
Last Car Passage	2	0 = recall phase, 1 = last car passage, 2 = NOT recall - Not last car passage							
Red Revert (+2 seconds)	3.0	0 - 25.5 sec							
Auto Ped Clear	X	X = On							
Flashing Don't Walk Into Yellow		X = On							
Soft Recall / Red Rest Delay	0.0	0 - 25.5 sec							
Ped Pushbutton	0	0 - 5 sec, 0 = disable							
Advance Flash Rate	0	0 = disable, 1 = 120 FPM							
Change Sequence		X = On (After a download with a power on - off cycle)							
Phase -->	1	2	3	4	5	6	7	8	
Red Clear Extension Detector	0	0	0	0	0	0	0	0	0 = none 1 - 32 = detector 1 - 32
Red Clear Extension Red Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 25.5 sec.

Local Detectors (next/2/2/4)

Detector Data ATTACHMENT 4

	Yellow Lock	Detector Inhibit	Call Phase	Extend Phase	Switch Phase	Delay Time	Stretch / Disconnect Time	Delay or Disconnect Mode
Detector 1 - 17			*1*	*1*	*0*	*0*	*1.5*	*0*
Detector 2 - 18,19			*1*	*1*	*0*	*0*	*0.0*	*0*
Detector 3 -			*3*	*3*	*0*	*0*	*1.5*	*0*
Detector 4 -			*3*	*3*	*0*	*0*	*0.0*	*0*
Detector 5 - 6			*5*	*5*	*0*	*0*	*1.5*	*0*
Detector 6 - 7,8			*5*	*5*	*0*	*0*	*0.0*	*0*
Detector 7 -			*7*	*7*	*0*	*0*	*1.5*	*0*
Detector 8 -			*7*	*7*	*0*	*0*	*0.0*	*0*
Detector 9 - 1			*2*	*2*	*0*	*0*	*1.0*	*0*
Detector 10 - 2			*2*	*2*	*0*	*0*	*2.0*	*0*
Detector 11 - 3,4			*2*	*2*	*0*	*0*	*0.0*	*0*
Detector 12 - 5			*2*	*2*	*0*	*1*	*3.0*	*0*
Detector 13 -			*2*	*2*	*0*	*5*	*0.0*	*0*
Detector 14 - 9			*4*	*4*	*0*	*1*	*1.5*	*0*
Detector 15 - 10,11			*4*	*4*	*0*	*0*	*1.5*	*0*
Detector 16 -			*4*	*4*	*0*	*10*	*0.0*	*0*
Detector 17 -			*4*	*4*	*0*	*0*	*0.0*	*0*
Detector 18 -			*4*	*4*	*0*	*5*	*3.0*	*0*
Detector 19 - 12			*6*	*6*	*0*	*0*	*1.0*	*0*
Detector 20 - 13			*6*	*6*	*0*	*0*	*1.0*	*0*
Detector 21 - 14,15			*6*	*6*	*0*	*0*	*0.0*	*0*
Detector 22 - 16			*6*	*6*	*0*	*1*	*3.0*	*0*
Detector 23 -			*6*	*6*	*0*	*5*	*1.0*	*0*
Detector 24 - 20			*8*	*8*	*0*	*1*	*1.5*	*0*
Detector 25 - 23			*8*	*8*	*0*	*0*	*1.5*	*0*
Detector 26 - 21,22			*8*	*8*	*0*	*10*	*0.0*	*0*
Detector 27 - 24,25			*8*	*8*	*0*	*0*	*0.0*	*0*
Detector 28 -			*8*	*8*	*0*	*5*	*3.0*	*0*
Detector 29 -			*0*	*0*	*0*	*0*	*0.0*	*0*
Detector 30 -			*0*	*0*	*0*	*0*	*0.0*	*0*
Detector 31 -			*0*	*0*	*0*	*0*	*0.0*	*0*
Detector 32 -			*0*	*0*	*0*	*0*	*0.0*	*0*

yellow lock, detector inhibit, - X = On; call, extend, phase - 0 = none 1 - 8 = phase 1 - 8 ; delay time - 0 - 255 sec
stretch / disconnect time - 0.0 - 25.5 sec.; delay or disconnect Mode - 0 -13

Detector Plans (next/2/2/4/5)

	Loop Number									
	Plan Detectors	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 32, 0 = none, 1 -3 2 = detectors 1 - 32
Detector Plan 1	**Call Phase**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 8, 0 = none, 1 - 8 = phase 1 - 8
	Extend Phase	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Switch Phase	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Delay Time	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 255 sec
	Stretch/Disconnect Time	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	0.0 - 25.5 sec
	Delay/ Disconnect Mode	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 13
Detector Plan 2	**Call Phase**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 8, 0 = none, 1 - 8 = phase 1 - 8
	Extend Phase	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Switch Phase	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Delay Time	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 255 sec
	Stretch/Disconnect Time	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	0.0 - 25.5 sec
	Delay/ Disconnect Mode	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 13
Detector Plan 3	**Call Phase**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 8, 0 = none, 1 - 8 = phase 1 - 8
	Extend Phase	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Switch Phase	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Delay Time	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 255 sec
	Stretch/Disconnect Time	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	0.0 - 25.5 sec
	Delay/ Disconnect Mode	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 13

Detector Fail Monitor (next/2/2/4/3)					Detectors 33-64 (next/2/2/4/6)		
	Fail Monitor Enable	Recall Phase	Min Counts	Max Counts		Call Phase	Extend Phase
Detector 1 - 17		*0*	*0*	*0*	Detector 33 -	0	0
Detector 2 - 18,19		*0*	*0*	*0*	Detector 34 -	0	0
Detector 3 -		*0*	*0*	*0*	Detector 35 - 7,8	0	0
Detector 4 -		*0*	*0*	*0*	Detector 36 -	0	0
Detector 5 - 6		*0*	*0*	*0*	Detector 37 -	0	0
Detector 6 - 7,8		*0*	*0*	*0*	Detector 38 -	0	0
Detector 7 -		*0*	*0*	*0*	Detector 39 -	0	0
Detector 8 -		*0*	*0*	*0*	Detector 40 -	0	0
Detector 9 - 1		*0*	*0*	*0*	Detector 41 -	0	0
Detector 10 - 2		*0*	*0*	*0*	Detector 42 -	0	0
Detector 11 - 3,4		*0*	*0*	*0*	Detector 43 -	0	0
Detector 12 - 5		*0*	*0*	*0*	Detector 44 -	0	0
Detector 13 -		*0*	*0*	*0*	Detector 45 -	0	0
Detector 14 - 9		*0*	*0*	*0*	Detector 46 -	0	0
Detector 15 - 10,11		*0*	*0*	*0*	Detector 47 -	0	0
Detector 16 -		*0*	*0*	*0*	Detector 48 -	0	0
Detector 17 -		*0*	*0*	*0*	Detector 49 -	0	0
Detector 18 -		*0*	*0*	*0*	Detector 50 -	0	0
Detector 19 - 12		*0*	*0*	*0*	Detector 51 -	0	0
Detector 20 - 13		*0*	*0*	*0*	Detector 52 -	0	0
Detector 21 - 14,15		*0*	*0*	*0*	Detector 53 -	0	0
Detector 22 - 16		*0*	*0*	*0*	Detector 54 -	0	0
Detector 23 -		*0*	*0*	*0*	Detector 55 -	0	0
Detector 24 - 20		*0*	*0*	*0*	Detector 56 -	0	0
Detector 25 - 23		*0*	*0*	*0*	Detector 57 -	0	0
Detector 26 - 21,22		*0*	*0*	*0*	Detector 58 -	0	0
Detector 27 - 24,25		*0*	*0*	*0*	Detector 59 -	0	0
Detector 28 -		*0*	*0*	*0*	Detector 60 -	0	0
Detector 29 -		*0*	*0*	*0*	Detector 61 -	0	0
Detector 30 -		*0*	*0*	*0*	Detector 62 -	0	0
Detector 31 -		*0*	*0*	*0*	Detector 63 -	0	0
Detector 32 -		*0*	*0*	*0*	Detector 64 -	0	0
fail monitor enable - X = On, recall phase - 0 = none 1 - 8 = phase 1 - 8, min, max					call / extend phase - 0 = none 1 - 8 = phase 1 - 8		

Detector Fail Sample Period (all detectors)	*0*	0 - 255 minutes

Video Fail Inputs (next/2/2/4/3) -->	1	2	3	4	5	6	7	8	
Phase Recalled	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 = none, 1 - 8 = phase 1 - 8

System Detectors (next/2/2/4/4)

System Detectors -->	1	2	3	4	5	6	7	8	
Local Detector	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 = none, 1 - 32 = phase 1 - 32

Overlaps / FYLTA (next/2/2/8)

Vehicle Overlaps		Phase or Movement	Phases 1	2	3	4	5	6	7	8	Extension Green	Clearance Yellow	Red
Overlaps	A		0	0	0	0	0	0	0	0	0.0	0.0	0.0
	B		0	0	0	0	0	0	0	0	0.0	0.0	0.0
	C		0	0	0	0	0	0	0	0	0.0	0.0	0.0
	D		0	0	0	0	0	0	0	0	0.0	0.0	0.0
	E		0	0	0	0	0	0	0	0	0.0	0.0	0.0
	F		0	0	0	0	0	0	0	0	0.0	0.0	0.0
	G		0	0	0	0	0	0	0	0	0.0	0.0	0.0
	H		0	0	0	0	0	0	0	0	0.0	0.0	0.0
	I		0	0	0	0	0	0	0	0	0.0	0.0	0.0
	J		0	0	0	0	0	0	0	0	0.0	0.0	0.0
	K		0	0	0	0	0	0	0	0	0.0	0.0	0.0
	L		0	0	0	0	0	0	0	0	0.0	0.0	0.0

A - D
0 = none
1 = overlap
2 = 60 FPM
3 = Not ped
4=Comp. Ph.
5=Prevent. Ext.
6=Not Veh.
7=Adv. FF

E - L
0 = no Overlap
1 = Overlap

Green,Yellow Red

Not Ped - Ped Overlaps (next/2/2/8/5)

Ped Overlaps ->		A	B	C	D	E	F	G	H
Overlaps	A								
	B								
	C								
	D								

X = Nor Ped Ped Overlap

Advance Warning (next/2/2/8/3)

	E	F	G	H	I	J	K	L	
Enable	0	0	0	0	0	0	0	0	0 = disabled, 1 = enabled
1st Conditional Overlap	0	0	0	0	0	0	0	0	0 = none, 1 - overlap E, 2 = overlap F, etc.
2nd Conditional Overlap	0	0	0	0	0	0	0	0	
Advance Deactivation Delay	0	0	0	0	0	0	0	0	0 - 99 seconds

Ped Overlaps (next/2/2/8/5)

Phase -->		1	2	3	4	5	6	7	8	Walk	Ped Clear	Ped Recall
Ped Overlap	A									0	0	
	B									0	0	
	C									0	0	
	D									0	0	
	E									0	0	
	F									0	0	
	G									0	0	
	H									0	0	

Phase, Ped Recall: X = on

Walk, Ped Clear: 0 - 255 seconds

Flashing Yellow Left Turn Arrow (FYLTA) (next/2/2/8/6)

Phase Pairs -->	1 - 2	3 - 4	5 - 6	7 - 8	
Enable	0	0	0	0	0 = off, 3 = 3 outputs, 4 = 4 outputs, 5 = 5 outputs
Even Omits Odd	0	0	0	0	0 = off, 1 = on, 2 = on, place call across barrier
Detector Switch Odd / Even	X	X	X	X	X = on, odd phase must be omitted
Red Transition	3.0	3.0	3.0	3.0	0.0 or 2.0 - 25.5 sec
Red Extension	0.0	0.0	0.0	0.0	0.0 - 25.5 sec
Return to GLTA	0	0	0	0	0 = off, 1 = max out, 2 = yellow lock

Flashing Yellow Left Turn Arrow (FYLTA) - Continued on last page

Service Plans (next/2/2/6)

ATTACHMENT 4

	Phase -->	1	2	3	4	5	6	7	8	
Service Plan 1	Call Mode	0	0	0	0	0	0	0	0	
	0 = actuated, 1 = omit, 2 = CNA, 3 = min recall, 4 = max recall, 5 = soft recall, 6 = ped recall, 7 = omit ped, 8 = red rest									
	Minimum Green	0	0	0	0	0	0	0	0	0 - 255 sec.
	Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 or 3.0 - 25.5
	Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Walk	0	0	0	0	0	0	0	0	0 - 255 sec.
	Pedestrian Clearance	0	0	0	0	0	0	0	0	0 - 255 sec.

	Phase -->	1	2	3	4	5	6	7	8	
Service Plan 2	Call Mode	0	0	0	0	0	0	0	0	
	0 = actuated, 1 = omit, 2 = CNA, 3 = min recall, 4 = max recall, 5 = soft recall, 6 = ped recall, 7 = omit ped, 8 = red rest									
	Minimum Green	0	0	0	0	0	0	0	0	0 - 255 sec.
	Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 or 3.0 - 25.5
	Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Walk	0	0	0	0	0	0	0	0	0 - 255 sec.
	Pedestrian Clearance	0	0	0	0	0	0	0	0	0 - 255 sec.

	Phase -->	1	2	3	4	5	6	7	8	
Service Plan 3	Call Mode	0	0	0	0	0	0	0	0	
	0 = actuated, 1 = omit, 2 = CNA, 3 = min recall, 4 = max recall, 5 = soft recall, 6 = ped recall, 7 = omit ped, 8 = red rest									
	Minimum Green	0	0	0	0	0	0	0	0	0 - 255 sec.
	Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 or 3.0 - 25.5
	Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Walk	0	0	0	0	0	0	0	0	0 - 255 sec.
	Pedestrian Clearance	0	0	0	0	0	0	0	0	0 - 255 sec.

	Phase -->	1	2	3	4	5	6	7	8	
Service Plan 4	Call Mode	0	0	0	0	0	0	0	0	
	0 = actuated, 1 = omit, 2 = CNA, 3 = min recall, 4 = max recall, 5 = soft recall, 6 = ped recall, 7 = omit ped, 8 = red rest									
	Minimum Green	0	0	0	0	0	0	0	0	0 - 255 sec.
	Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 or 3.0 - 25.5
	Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Walk	0	0	0	0	0	0	0	0	0 - 255 sec.
	Pedestrian Clearance	0	0	0	0	0	0	0	0	0 - 255 sec.

	Phase -->	1	2	3	4	5	6	7	8	
Service Plan 5	Call Mode	0	0	0	0	0	0	0	0	
	0 = actuated, 1 = omit, 2 = CNA, 3 = min recall, 4 = max recall, 5 = soft recall, 6 = ped recall, 7 = omit ped, 8 = red rest									
	Minimum Green	0	0	0	0	0	0	0	0	0 - 255 sec.
	Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 or 3.0 - 25.5
	Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Walk	0	0	0	0	0	0	0	0	0 - 255 sec.
	Pedestrian Clearance	0	0	0	0	0	0	0	0	0 - 255 sec.

	Phase -->	1	2	3	4	5	6	7	8	
Service Plan 6	Call Mode	0	0	0	0	0	0	0	0	
	0 = actuated, 1 = omit, 2 = CNA, 3 = min recall, 4 = max recall, 5 = soft recall, 6 = ped recall, 7 = omit ped, 8 = red rest									
	Minimum Green	0	0	0	0	0	0	0	0	0 - 255 sec.
	Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 or 3.0 - 25.5
	Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Walk	0	0	0	0	0	0	0	0	0 - 255 sec.
	Pedestrian Clearance	0	0	0	0	0	0	0	0	0 - 255 sec.

Service Plans Cont.

ATTACHMENT 4

	Phase -->	1	2	3	4	5	6	7	8	
Service Plan 7	Call Mode	0	0	0	0	0	0	0	0	
	0 = actuated, 1 = omit, 2 = CNA, 3 = min recall, 4 = max recall, 5 = soft recall, 6 = ped recall, 7 = omit ped, 8 = red rest									
	Minimum Green	0	0	0	0	0	0	0	0	0 - 255 sec.
	Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 or 3.0 - 25.5
	Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Walk	0	0	0	0	0	0	0	0	0 - 255 sec.
	Pedestrian Clearance	0	0	0	0	0	0	0	0	0 - 255 sec.

	Phase -->	1	2	3	4	5	6	7	8	
Service Plan 8	Call Mode	0	0	0	0	0	0	0	0	
	0 = actuated, 1 = omit, 2 = CNA, 3 = min recall, 4 = max recall, 5 = soft recall, 6 = ped recall, 7 = omit ped, 8 = red rest									
	Minimum Green	0	0	0	0	0	0	0	0	0 - 255 sec.
	Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 or 3.0 - 25.5
	Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Walk	0	0	0	0	0	0	0	0	0 - 255 sec.
	Pedestrian Clearance	0	0	0	0	0	0	0	0	0 - 255 sec.

Max Plans (next/2/2/7)

	Phase -->	1	2	3	4	5	6	7	8	
Max Plan 1	Normal Max	25	60	30	30	25	60	30	30	0 - 255 sec
	Fail Max	0	0	0	0	0	0	0	0	
	Auto Max Adjust	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 25.5 sec
	Auto Max Limit	0	0	0	0	0	0	0	0	0 - 255 sec
Max Plan 2	Normal Max	25	60	25	25	25	60	25	25	0 - 255 sec
	Fail Max	0	0	0	0	0	0	0	0	
	Auto Max Adjust	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 25.5 sec
	Auto Max Limit	0	0	0	0	0	0	0	0	0 - 255 sec
Max Plan 3	Normal Max	25	70	30	30	25	70	30	30	0 - 255 sec
	Fail Max	0	0	0	0	0	0	0	0	
	Auto Max Adjust	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 25.5 sec
	Auto Max Limit	0	0	0	0	0	0	0	0	0 - 255 sec
Max Plan 4	Normal Max	25	75	30	25	30	75	30	25	0 - 255 sec
	Fail Max	0	0	0	0	0	0	0	0	
	Auto Max Adjust	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 25.5 sec
	Auto Max Limit	0	0	0	0	0	0	0	0	0 - 255 sec
Max Plan 5	Normal Max	0	0	0	0	0	0	0	0	0 - 255 sec
	Fail Max	0	0	0	0	0	0	0	0	
	Auto Max Adjust	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 25.5 sec
	Auto Max Limit	0	0	0	0	0	0	0	0	0 - 255 sec
Max Plan 6	Normal Max	0	0	0	0	0	0	0	0	0 - 255 sec
	Fail Max	0	0	0	0	0	0	0	0	
	Auto Max Adjust	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 25.5 sec
	Auto Max Limit	0	0	0	0	0	0	0	0	0 - 255 sec
Max Plan 7	Normal Max	0	0	0	0	0	0	0	0	0 - 255 sec
	Fail Max	0	0	0	0	0	0	0	0	
	Auto Max Adjust	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 25.5 sec
	Auto Max Limit	0	0	0	0	0	0	0	0	0 - 255 sec
Max Plan 8	Normal Max	0	0	0	0	0	0	0	0	0 - 255 sec
	Fail Max	0	0	0	0	0	0	0	0	
	Auto Max Adjust	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 25.5 sec
	Auto Max Limit	0	0	0	0	0	0	0	0	0 - 255 sec

Coordination Data (next/2/3)

ATTACHMENT 4

Coordination Modes (next/2/3/1, next/2/3/4/1, next/2/3/4/3)

Flash Mode	*33*	0=off, 1=on, 33=time clock, 34=comm, 35=hardwire, 36=NWS Set only, 37=AB3418 / NTCIP S
Coordination Plan Mode	*33*	0=free, 1-32 = coord plan 1-32, 33=time clock, 34=comm, 35=hardwire, 36=NWS Set only, 37=
Offset Seeking Mode	*2*	0=add only, 1=dwell, 2=fastway
Late Ped	*0*	0 = off, 1 = on
Coord Walk Rest	*0*	0 = off, 1 = on, 2 = by TOD circuit 160, 3 = end of walk, 4 = coord ped during perms
Repeated Phase Service	*0*	0=off, 1=on (no coord ped), 2=on (beginning green coord ped), 3=on (coord ped always)
Zero Mode (TS2 only)	*0*	0=start of main street, 1=end of main street, 2=by TOD circuit 144

Phase -->	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	0 = service allowed 1 = service prevented
Omit Phase During Repeated Phase Service	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Auto Permissive Min Green	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 255 seconds

Coordination Plans (next/2/3/2)

Coord Plan	**Coordination Phases**		**Cycle Length**	**Offset Time**	**Min Cycle Length Dwell Time**	**Permissive**	**Service Plan**	**Max Plan**
	Ring 1	**Ring 2**						
1 -	*2*	*6*	*100*	*74*	*0*	*0*	*0*	*1*
2 -	*2*	*6*	*100*	*81*	*0*	*0*	*0*	*2*
3 -	*2*	*6*	*110*	*95*	*0*	*0*	*0*	*3*
4 -	*2*	*6*	*120*	*65*	*0*	*0*	*0*	*4*
5 -	*2*	*6*	*0*	*0*	*0*	*0*	*0*	*0*
6 -	*2*	*6*	*100*	*74*	*0*	*0*	*0*	*6*
7 -	*2*	*6*	*0*	*0*	*0*	*0*	*0*	*0*
8 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
9 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
10 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
11 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
12 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
13 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
14 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
15 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
16 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
17 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
18 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
19 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
20 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
21 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
22 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
23 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
24 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
25 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
26 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
27 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
28 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
29 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
30 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
31 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
32 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	0 - 8		0 - 255 sec.				0 - 8	

Coordination Plans cont.

ATTACHMENT 4

Coord Plan	* = Force Offs / Split Times (TS2)								* = Yield Points / Actuated Times (TS2)	
	1	2	3	4	5	6	7	8	Ring 1	Ring 2
1 -	18	42	20	20	18	42	20	20	5	18
2 -	17	47	18	18	17	47	18	18	5	15
3 -	18	50	22	20	18	50	22	20	5	18
4 -	18	64	20	18	20	62	20	18	5	18
5 -	0	0	0	0	0	0	0	0	0	0
6 -	18	42	20	20	18	42	20	20	5	18
7 -	0	0	0	0	0	0	0	0	0	0
8 -	0	0	0	0	0	0	0	0	0	0
9 -	0	0	0	0	0	0	0	0	0	0
10 -	0	0	0	0	0	0	0	0	0	0
11 -	0	0	0	0	0	0	0	0	0	0
12 -	0	0	0	0	0	0	0	0	0	0
13 -	0	0	0	0	0	0	0	0	0	0
14 -	0	0	0	0	0	0	0	0	0	0
15 -	0	0	0	0	0	0	0	0	0	0
16 -	0	0	0	0	0	0	0	0	0	0
17 -	0	0	0	0	0	0	0	0	0	0
18 -	0	0	0	0	0	0	0	0	0	0
19 -	0	0	0	0	0	0	0	0	0	0
20 -	0	0	0	0	0	0	0	0	0	0
21 -	0	0	0	0	0	0	0	0	0	0
22 -	0	0	0	0	0	0	0	0	0	0
23 -	0	0	0	0	0	0	0	0	0	0
24 -	0	0	0	0	0	0	0	0	0	0
25 -	0	0	0	0	0	0	0	0	0	0
26 -	0	0	0	0	0	0	0	0	0	0
27 -	0	0	0	0	0	0	0	0	0	0
28 -	0	0	0	0	0	0	0	0	0	0
29 -	0	0	0	0	0	0	0	0	0	0
30 -	0	0	0	0	0	0	0	0	0	0
31 -	0	0	0	0	0	0	0	0	0	0
32 -	0	0	0	0	0	0	0	0	0	0
	0 - 255 sec * = force offs and yield points									

Circuit Mapping (next/2/3/3)

Circuit Map	Coord Plan	Time Clock Circuit		Time Clock Circuit		Time Clock Circuit		Time Clock Circuit		Time Clock Circuit		Time Clock Circuit		Time Clock Circuit		Time Clock Circuit	
1	1	97	LG1	100	LG7	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U
2	2	97	LG1	100	LG7	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U
3	3	97	LG1	98	LG3	100	LG7	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U
4	4	97	LG1	98	LG3	100	LG7	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U
5	34	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U
6	6	97	LG1	98	LG3	100	LG7	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U
7	34	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U
8	34	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U
9	34	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U
10	34	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U
11	34	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U
12	34	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U
13	34	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U
14	34	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U
15	34	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U
16	34	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U
17	34	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U
18	34	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U
19	34	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U
20	34	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U	0	N/U

coord plan - 0 = free, 1 - 32 = coord plan 1 - 32, 33 = any, 34 none selected
time clock circuits - 0 = not used, or circuits 6 - 196

Dynamic Phase Length (next/2/3/4/4)

		1	2	3	4	5	6	7	8	
Phase -->		1	2	3	4	5	6	7	8	
Back Detector		1	29	3	14	5	30	7	25	0 = none, 1-32 = detector 1-32
Lane Factor		1.0	2.0	2.0	1.0	2.0	2.0	2.0	1.0	0 = none, 1.0 - 5.0
Check Out Detector		0	5	0	0	0	1	0	0	0 = none, 1-32 = detector 1-32
Coord Delta Force Off	Set A	5	5	5	5	5	5	5	5	0 - 255 sec
	Set B	0	0	0	0	0	0	0	0	
	Set C	0	0	0	0	0	0	0	0	
	Set D	0	0	0	0	0	0	0	0	
Free Delta Max	Set A	0	0	0	0	0	0	0	0	
	Set B	0	0	0	0	0	0	0	0	
	Set C	0	0	0	0	0	0	0	0	
	Set D	0	0	0	0	0	0	0	0	

Platoon Progression (next/2/3/4/5)

Entry Local Only			Master Local Only		
Platoon Max	0	0 - 255 sec	Smoothing Factor	0.0	0.0 - 1.0
Min Platoon Green	0	0 - 255 sec			
Entry Detector Gap	0.0	0.0 - 25.5			
Min Platoon Cycle	0	0 - 255 sec			

Inbound			Outbound		
Only for Entry Inbound Local or Master Local			Only for Entry Outbound Local or Master Local		
Entry IB Local also Last OB Local	0	0 - 50	Entry OB Local also Last IB Local	0	0 - 50
Speed	0	0 - 55 mph	Speed	0	0 - 55 mph
Distance from Entry Local	0	0 - 65000 feet	Distance from Entry Local	0	0 - 65000 feet

Entry Local Only				Entry Local Only			
Distance from Entry Local Detector	0	0 - 999 feet		Distance from Entry Local Detector	0	0 - 999 feet	
Entry Local Detector	0	0	0 - 32	Entry Local Detector	0	0	0 - 32

Master Local				Master Local			
Master Mid - System Critical Detectors	0	0	0 - 16	Master Mid - System Critical Detectors	0	0	0 - 16

Force Off Percents

Inbound	1	3	4	5	7	8	Outbound	1	3	4	5	7	8
Split 1	0	0	0	0	0	0	Split 1	0	0	0	0	0	0
Split 2	0	0	0	0	0	0	Split 2	0	0	0	0	0	0
	0 - 100 %							0 - 100 %					

Time of Day Data (next/2/4)

ATTACHMENT 4

Day Program (next/2/4/1)

	Day Prog.	Time	Coord Plan	Coord Plan or Circuit		State On / Off		Day Prog.	Time	Coord Plan	Coord Plan or Circuit		State On/Off
1	*1*	*06:00*	*X*	*1*			**51**						
2	*1*	*07:30*	*X*	*2*			**52**						
3	*1*	*10:30*	*X*	*3*			**53**						
4	*1*	*16:00*	*X*	*4*			**54**						
5	*1*	*18:00*	*X*	*3*			**55**						
6	*1*	*20:00*	*X*	*0*			**56**						
7	*2*	*07:30*	*X*	*1*			**57**						
8	*2*	*10:00*	*X*	*6*			**58**						
9	*2*	*18:00*	*X*	*0*			**59**						
10							**60**						
11							**61**						
12							**62**						
13							**63**						
14							**64**						
15							**65**						
16							**66**						
17							**67**						
18							**68**						
19							**69**						
20							**70**						
21							**71**						
22							**72**						
23							**73**						
24							**74**						
25							**75**						
26							**76**						
27							**77**						
28							**78**						
29							**79**						
30							**80**						
31							**81**						
32							**82**						
33							**83**						
34							**84**						
35							**85**						
36							**86**						
37							**87**						
38							**88**						
39							**89**						
40							**90**						
41							**91**						
42							**92**						
43							**93**						
44							**94**						
45							**95**						
46							**96**						
47							**97**						
48							**98**						
49							**99**						
50							**100**						
	1 - 15	hh : mm	X = on	coord plan 0 - 32 or circuit 1-196		X = on		1 - 15	hh : mm	X = on	coord plan 0 - 32 or circuit 1-196		X = on

Day Program cont.														
	Day Prog.	Time	Coord Plan	Coord Plan or Circuit		State On / Off		Day Prog.	Time	Coord Plan	Coord Plan or Circuit		State On / Off
101							151						
102							152						
103							153						
104							154						
105							155						
106							156						
107							157						
108							158						
109							159						
110							160						
111							161						
112							162						
113							163						
114							164						
115							165						
116							166						
117							167						
118							168						
119							169						
120							170						
121							171						
122							172						
123							173						
124							174						
125							175						
126							176						
127							177						
128							178						
129							179						
130							180						
131							181						
132							182						
133							183						
134							184						
135							185						
136							186						
137							187						
138							188						
139							189						
140							190						
141							191						
142							192						
143							193						
144							194						
145							195						
146							196						
147							197						
148							198						
149							199						
150							200						
	1 - 15	hh : mm	X = on	coord plan 0 - 32 or circuit 1-196		X = on		1 - 15	hh : mm	X = on	coord plan 0 - 32 or circuit 1-196		X = on

Week Program (next/2/4/2)

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	1	1	1	1	1	2
2	2	1	1	1	1	1	2
3	2	1	1	1	1	1	2
4	2	1	1	1	1	1	2
5	2	1	1	1	1	1	2
6	2	1	1	1	1	1	2
7	2	1	1	1	1	1	2
8	2	1	1	1	1	1	2
9	2	1	1	1	1	1	2
10	2	1	1	1	1	1	2

0 = none, 1 - 15 = day plan

Exception Days (next/2/4/6)

	DOW	WOM	DOM	MOY	Day Prog.
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
	0-10	0 - 5	0-31	0-12	0 - 15

Year Program (next/2/4/3)

From Date	To Date	Week Program
01/01/2014	12/31/2014	1

ATTACHMENT 4

New Years Day - Date - January 1st

Martin Luther King Day - DOW WOM - 3rd Monday of January

President's Day - DOW WOM - 3rd Monday February

Memorial Day - DOW WOM - Last Monday May

Fourth of July - Date - July 4th

Labor Day - DOW WOM - 1st Monday September

Columbus Day - DOW WOM - 2nd Monday October

Veteran's Day - Date - November 11th

Thanksgiving - DOW WOM - 4th Thursday November

Christmas - Date - December 25th

Time Clock References (next/2/4/5)

Synch reference Mode	0	0 = timed, 1 = by event
Synch Reference Time	00:00	00:00 - 23:59
Daylight Savings Enable	X	X = on
Reset Time	00:00	00:00 - 23:59

Exception day headings - DOW = Day of Week, WOM = Week of Month, DOM = Day of Month, MOY = Month of Year

Circuit Overrides (next/2/4/4)							
1 - Coord Line 1	CL1	*TOD*	On / Off / TOD	51 - Ped Omit 3	PO3	*TOD*	On / Off / TOD
2 - Coord Line 2	CL2	*TOD*		52 - Ped Omit 4	PO4	*TOD*	
3 - Coord Line 4	CL4	*TOD*		53 - Ped Omit 5	PO5	*TOD*	
4 - Coord Line 8	CL8	*TOD*		54 - Ped Omit 6	PO6	*TOD*	
5 - Coord Line 16	C16	*TOD*		55 - Ped Omit 7	PO7	*TOD*	
6 - Coord Operation	CRD	*TOD*		56 - Ped Omit 8	PO8	*TOD*	
7 - Soft Flash	SFL	*TOD*		57 - Conditional Service	CVS	*TOD*	
8 - Enable System Relays	ESR	*TOD*		58 - Inhibit Simultaneous Gap Out	ISG	*TOD*	
9 - Call to Non Act 1	CN1	*TOD*		59 - Inhibit Hardwire	HWI	*TOD*	
10 - Call to Non Act 2	CN2	*TOD*		60 - Ped Override Mode	POM	***On***	
11 - Walk Rest Modifier	WRM	*TOD*		61 - Dual Entry	DLE	***On***	
12 - Min Recall	MIN	*TOD*		62 - Exclusive Ped	EPD	*TOD*	
13 - Max 2 Both Rings	MX2	*TOD*		63 - Call to Time Clock Mode	CTC	*TOD*	
14 - Coord Inhibit Max Ring 1, 2	IMT	*TOD*		64 - Dual Enhanced Ped	DEP	*TOD*	
15 - Enable Service Log	ESL	*TOD*		65 - Service Plan 1	SP1	*TOD*	
16 - Call to Free	CTF	*TOD*		66 - Service Plan 2	SP2	*TOD*	
17 - TOD Output 1	TO1	*TOD*		67 - Service Plan 3	SP3	*TOD*	
18 - TOD Output 2	TO2	*TOD*		68 - Service Plan 4	SP4	*TOD*	
19 - TOD Output 3	TO3	*TOD*		69 - Service Plan 5	SP5	*TOD*	
20 - TOD Output 4	TO4	*TOD*		70 - Service Plan 6	SP6	*TOD*	
21 - TOD Output 5	TO5	*TOD*		71 - Service Plan 7	SP7	*TOD*	
22 - TOD Output 6	TO6	*TOD*		72 - Service Plan 8	SP8	*TOD*	
23 - TOD Output 7	TO7	*TOD*		73 - Max Plan 1	MP1	*TOD*	
24 - TOD Output 8	TO8	*TOD*		74 - Max Plan 2	MP2	*TOD*	
25 - Vehicle Call Phase 1	VC1	*TOD*		75 - Max Plan 3	MP3	*TOD*	
26 - Vehicle Call Phase 2	VC2	*TOD*		76 - Max Plan 4	MP4	*TOD*	
27 - Vehicle Call Phase 3	VC3	*TOD*		77 - Max Plan 5	MP5	*TOD*	
28 - Vehicle Call Phase 4	VC4	*TOD*		78 - Max Plan 6	MP6	*TOD*	
29 - Vehicle Call Phase 5	VC5	*TOD*		79 - Max Plan 7	MP7	*TOD*	
30 - Vehicle Call Phase 6	VC6	*TOD*		80 - Max Plan 8	MP8	*TOD*	
31 - Vehicle Call Phase 7	VC7	*TOD*		81 - Transit Priority Max Group 1	TG1	*TOD*	
32 - Vehicle Call Phase 8	VC8	*TOD*		82 - Transit Priority Max Group 2	TG2	*TOD*	
33 - Ped Call Phase 1	PC1	*TOD*		83 - Transit Priority Max Group 3	TG3	*TOD*	
34 - Ped Call Phase 2	PC2	*TOD*		84 - Transit Priority Max Group 4	TG4	*TOD*	
35 - Ped Call Phase 3	PC3	*TOD*		85 - Transit Priority Max Group 5	TG5	*TOD*	
36 - Ped Call Phase 4	PC4	*TOD*		86 - Transit Priority Max Group 6	TG6	*TOD*	
37 - Ped Call Phase 5	PC5	*TOD*		87 - Transit Priority Max Group 7	TG7	*TOD*	
38 - Ped Call Phase 6	PC6	*TOD*		88 - Transit Priority Max Group 8	TG8	*TOD*	
39 - Ped Call Phase 7	PC7	*TOD*		89 - Inhibit Volume Density 1	IV1	*TOD*	
40 - Ped Call Phase 8	PC8	*TOD*		90 - Inhibit Volume Density 2	IV2	*TOD*	
41 - Vehicle Omit 1	VO1	*TOD*		91 - Inhibit Volume Density 3	Iv3	*TOD*	
42 - Vehicle Omit 2	VO2	*TOD*		92 - Inhibit Volume Density 4	IV4	*TOD*	
43 - Vehicle Omit 3	VO3	*TOD*		93 - Inhibit Volume Density 5	IV5	*TOD*	
44 - Vehicle Omit 4	VO4	*TOD*		94 - Inhibit Volume Density 6	IV6	*TOD*	
45 - Vehicle Omit 5	VO5	*TOD*		95 - Inhibit Volume Density 7	IV7	*TOD*	
46 - Vehicle Omit 6	VO6	*TOD*		96 - Inhibit Volume Density 8	IV8	*TOD*	
47 - Vehicle Omit 7	VO7	*TOD*		97 - Lag 1	LG1	*TOD*	
48 - Vehicle Omit 8	VO8	*TOD*		98 - Lag 3	LG3	*TOD*	
49 - Ped Omit 1	PO1	*TOD*		99 - Lag 5	LG5	*TOD*	
50 - Ped Omit 2	PO2	*TOD*		100 - Lag 7	LG7	*TOD*	

Circuit Overrides cont.							
101 - Inhibit Overlap A	**OLA**	*TOD*	On / Off / TOD	**151 - Coord Hold 7**	**HD7**	*TOD*	On / Off / TOD
102 - Inhibit Overlap B	**OLB**	*TOD*		**152 - Coord Hold 8**	**HD8**	*TOD*	
103 - Inhibit Overlap C	**OLC**	*TOD*		**153 - PE Priority Return B**	**PRB**	*TOD*	
104 - Inhibit Overlap D	**OLD**	*TOD*		**154 - PE Priority Return C**	**PRC**	*TOD*	
105 - Enable Schedule A Phone 1	**AT1**	*TOD*		**155 - PE Priority Return D**	**PRD**	*TOD*	
106 - Enable Schedule A Phone 2	**AT2**	*TOD*		**156 - PE Priority Return E**	**PRE**	*TOD*	
107 - Enable Schedule B Phone 1	**BT1**	*TOD*		**157 - Platoon Inbound**	**PPI**	*TOD*	
108 - Enable Schedule B Phone 2	**BT2**	*TOD*		**158 - Platoon Outbound**	**PPO**	*TOD*	
109 - Enable Schedule C Phone 1	**CT1**	*TOD*		**159 - Platoon Spl 2**	**PS2**	*TOD*	
110 - Enable Schedule C Phone 2	**CT2**	*TOD*		**160 - Coord Walk Rest**	**CWR**	*TOD*	
111 - Enable Volume to Call Phone 1	**VT1**	*TOD*		**161 - Dynamic Phase Length Short Inhibit 1**	**SI1**	*TOD*	
112 - Enable Volume to Call Phone 2	**VT2**	*TOD*		**162 - Dynamic Phase Length Short Inhibit 2**	**SI2**	*TOD*	
113 - Enable Volume Logging	**EVL**	***On***		**163 - Dynamic Phase Length Short Inhibit 3**	**SI3**	*TOD*	
114 - Enable MOE Logging	**EML**	***On***		**164 - Dynamic Phase Length Short Inhibit 4**	**SI4**	*TOD*	
115 - Detector Low Threshold Inhibit	**DLI**	*TOD*		**165 - Dynamic Phase Length Short Inhibit 5**	**SI5**	*TOD*	
116 - Detector Continue Presence Inhibit	**DPI**	*TOD*		**166 - Dynamic Phase Length Short Inhibit 6**	**SI6**	*TOD*	
117 - Inhibit Detector Based on Programming	**IND**	*TOD*		**167 - Dynamic Phase Length Short Inhibit 7**	**SI7**	*TOD*	
118 - Inhibit Detector Delay	**IDD**	*TOD*		**168 - Dynamic Phase Length Short Inhibit 8**	**SI8**	*TOD*	
119 - Inhibit Conditional Ped	**ICP**	*TOD*		**169 - Coord Late Left Turn 1**	**CT1**	*TOD*	
120 - Inhibit Transit Priority	**ITP**	*TOD*		**170 - Coord Late Left Turn 3**	**CT3**	*TOD*	
121 - Red Rest Ring 1,2	**RRM**	*TOD*		**171 - Coord Late Left Turn 5**	**CT5**	*TOD*	
122 - Enable Transcend	**TRA**	*TOD*		**172 - Coord Late Left Turn 7**	**CT7**	*TOD*	
123 - Omit Red Clear Ring 1,2	**ORC**	*TOD*		**173 - Dynamic Phase Length Enable A**	**DPA**	*TOD*	
124 - Not Used	**N/U**	*TOD*		**174 - Dynamic Phase Length Enable B**	**DPB**	*TOD*	
125 - Ped Recycle Ring 1,2	**PCY**	*TOD*		**175 - Dynamic Phase Length Enable C**	**DPC**	*TOD*	
126 - Not Used	**N/U**	*TOD*		**176 - Dynamic Phase Length Enable D**	**DPD**	*TOD*	
127 - Enable MOE Log to Call Phone 1	**MT1**	*TOD*		**177 - Proactive Plan Select Average**	**PSA**	*TOD*	
128 - Enable MOE Log to Call Phone 2	**MT2**	*TOD*		**178 - Proactive Plan Select Inbound**	**PSI**	*TOD*	
129 - Transit Inhibit Short Time 1	**IS1**	*TOD*		**179 - Proactive Plan Select Outbound**	**PSO**	*TOD*	
130 - Transit Inhibit Short Time 2	**IS2**	*TOD*		**180 - Split Variant Inbound**	**SVI**	*TOD*	
131 - Transit Inhibit Short Time 3	**IS3**	*TOD*		**181 - Split Variant Outbound**	**SVO**	*TOD*	
132 - Transit Inhibit Short Time 4	**IS4**	*TOD*		**182 - Disable Coord Walk Rest Ring 1**	**DW1**	*TOD*	
133 - Transit Inhibit Short Time 5	**IS5**	*TOD*		**183 - Disable Coord Walk Rest Ring 2**	**DW2**	*TOD*	
134 - Transit Inhibit Short Time 6	**IS6**	*TOD*		**184 - Proactive Plan Select New Look**	**NLK**	*TOD*	
135 - Transit Inhibit Short Time 7	**IS7**	*TOD*		**185 - Disable Red Clearance Extension**	**DRX**	*TOD*	
136 - Transit Inhibit Short Time 8	**IS8**	*TOD*		**186 - Detector Plan Line 1**	**DL1**	*TOD*	
137 - Enable Transit Priority Logging	**ETL**	*TOD*		**187 - Detector Plan Line 2**	**DL2**	*TOD*	
138 - Disable Flashing Yellow Arrow 1	**DF1**	*TOD*		**188 - Disable LRT 1 Vertical Flashing Bar**	**DV1**	*TOD*	
139 - Disable Flashing Yellow Arrow 3	**DF3**	*TOD*		**189 - Disable LRT 2 Vertical Flashing Bar**	**DV2**	*TOD*	
140 - Disable Flashing Yellow Arrow 5	**DF5**	*TOD*		**190 - Disable LRT 3 Vertical Flashing Bar**	**DV3**	*TOD*	
141 - Disable Flashing Yellow Arrow 7	**DF7**	*TOD*		**191 - Disable LRT 4 Vertical Flashing Bar**	**DV4**	*TOD*	
142 - Disable Auto Max	**DAM**	*TOD*		**192 - Datakey Enable**	**DKE**	***On***	
143 - Disable Repeat Phase Service	**DRS**	*TOD*		**193 - Dynamic Phase Reversal Enable 1**	**DR1**	*TOD*	
144 - Coord End of Main Street	**EMS**	*TOD*		**194 - Dynamic Phase Reversal Enable 3**	**DR3**	*TOD*	
145 - Coord Hold 1	**HD1**	*TOD*		**195 - Dynamic Phase Reversal Enable 5**	**DR5**	*TOD*	
146 - Coord Hold 2	**HD2**	*TOD*		**196 - Dynamic Phase Reversal Enable 7**	**DR7**	*TOD*	
147 - Coord Hold 3	**HD3**	*TOD*		**197 - Enable Coord Logging**	**ECL**	***On***	
148 - Coord Hold 4	**HD4**	*TOD*		**198 - Disable Gap FYLTA 1,3,5,7**	**DGF**	*TOD*	
149 - Coord Hold 5	**HD5**	*TOD*		**199 - Coordination Auto Walk**	**CAW**	*TOD*	
150 - Coord Hold 6	**HD6**	*TOD*		**200 - Enable Coordinated Auto Max**	**ECM**	*TOD*	

Preemption Data (next/2/5)

ATTACHMENT 4

Sequence (next/2/5/1 - 8)

Sequences / Intervals		Instruction	Phases Serviced	Interval Time	Hold On Input	Outputs On	Output Mode
1	1	*197*	*25*	*0*	*1*		*0*
	2	*98*		*0*	*0*		*0*
	3	*0*		*0*	*0*		*0*
	4	*0*		*0*	*0*		*0*
	5	*0*		*0*	*0*		*0*
	6	*0*		*0*	*0*		*0*
	7	*0*		*0*	*0*		*0*
	8	*0*		*0*	*0*		*0*
	9	*0*		*0*	*0*		*0*
	10	*0*		*0*	*0*		*0*
2	1	*197*	*47*	*0*	*1*		*0*
	2	*98*		*0*	*0*		*0*
	3	*0*		*0*	*0*		*0*
	4	*0*		*0*	*0*		*0*
	5	*0*		*0*	*0*		*0*
	6	*0*		*0*	*0*		*0*
	7	*0*		*0*	*0*		*0*
	8	*0*		*0*	*0*		*0*
	9	*0*		*0*	*0*		*0*
	10	*0*		*0*	*0*		*0*
3	1	*197*	*16*	*0*	*1*		*0*
	2	*98*		*0*	*0*		*0*
	3	*0*		*0*	*0*		*0*
	4	*0*		*0*	*0*		*0*
	5	*0*		*0*	*0*		*0*
	6	*0*		*0*	*0*		*0*
	7	*0*		*0*	*0*		*0*
	8	*0*		*0*	*0*		*0*
	9	*0*		*0*	*0*		*0*
	10	*0*		*0*	*0*		*0*
4	1	*197*	*38*	*0*	*1*		*0*
	2	*98*		*0*	*0*		*0*
	3	*0*		*0*	*0*		*0*
	4	*0*		*0*	*0*		*0*
	5	*0*		*0*	*0*		*0*
	6	*0*		*0*	*0*		*0*
	7	*0*		*0*	*0*		*0*
	8	*0*		*0*	*0*		*0*
	9	*0*		*0*	*0*		*0*
	10	*0*		*0*	*0*		*0*
5	1	*0*		*0*	*0*		*0*
	2	*0*		*0*	*0*		*0*
	3	*0*		*0*	*0*		*0*
	4	*0*		*0*	*0*		*0*
	5	*0*		*0*	*0*		*0*
	6	*0*		*0*	*0*		*0*
	7	*0*		*0*	*0*		*0*
	8	*0*		*0*	*0*		*0*
	9	*0*		*0*	*0*		*0*
	10	*0*		*0*	*0*		*0*

Instructions
0 - Service Phases
1-9 = Special Interval 1-9
10 - Preempt Sequence Allows FYLTA
11 - Preempt Interval Disables FYLTA
15 - Alternate Trap Protection
90 - Go to all Red
91 - Soft Flash On
92 - Soft Flash Off
93 - Enable Ped
94 - Disable Peds
95 - Priority Return
96 - Enable Coordination with peds
97 - Enable Coordination without peds
98 - Return with NO Calls
99 - Return with Vehicle Calls
100 - jump to step in Interval Time
101 - Use Interval Time as Resetable Gap Timer
196 - Coord Re-synch with Peds
197 - Coord Re-synch without Peds
200 - Light Rail Train phase without Peds
201 - Light Rail Train phase with Peds
202 - Return to highest queue/delay phase (this uses the Dynamic Phase Length Back Detectors)
216 - Light Rail Train Coord Re-synch with Peds
217 - Light Rail Train Coord Re-synch without Peds

Phases Serviced - phases 1 - 8

Interval Time - 0 - 255 sec or interval 1 - 10

Hold on Input:
0 = Do not hold
1 = Hold
2 = Ped Service to Rest in Walk

Outputs On - output 1 - 8

Output Modes -
0 = all steady on
1 = all flash together
2 = odd flashes WIG, even flashes WAG
3 = 1 - 4 steady on, 5 - 8 all flash together

ATTACHMENT 4

Sequence cont.

Sequences / Intervals		Instruction	Phases Serviced	Interval Time	Hold On Input	Outputs On	Output Mode
6	1	0		0	0		0
	2	0		0	0		0
	3	0		0	0		0
	4	0		0	0		0
	5	0		0	0		0
	6	0		0	0		0
	7	0		0	0		0
	8	0		0	0		0
	9	0		0	0		0
	10	0		0	0		0
7	1	0		0	0		0
	2	0		0	0		0
	3	0		0	0		0
	4	0		0	0		0
	5	0		0	0		0
	6	0		0	0		0
	7	0		0	0		0
	8	0		0	0		0
	9	0		0	0		0
	10	0		0	0		0
8	1	0		0	0		0
	2	0		0	0		0
	3	0		0	0		0
	4	0		0	0		0
	5	0		0	0		0
	6	0		0	0		0
	7	0		0	0		0
	8	0		0	0		0
	9	0		0	0		0
	10	0		0	0		0

Sequence Timing (next/2/5/0)

	Sequence -- >	1	2	3	4	5	6	7	8	
	Input Memory									X = on
	Input Priority	6	6	6	6	0	0	0	0	0 = lowest, - 8 = highest
Entry (Transition) Parameters	Min Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec
	Walk	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0 would time the normal function time
	Ped Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Overlap Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec
	Overlap Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Delay to Preempt	0	0	0	0	0	0	0	0	0 - 255 sec
	Delay Ped Omit	0	0	0	0	0	0	0	0	
	Delay Phase Omit	0	0	0	0	0	0	0	0	
	Min Reservice	0	0	0	0	0	0	0	0	0 - 255 min
Overlap Inhibits	A									X = inhibit
	B									
	C									
	D									
Exit Parameters	Exit to Coord Plan Offset by X	0	0	0	0	0	0	0	0	0 - 20
	Exit Coord Plan Time	0	0	0	0	0	0	0	0	0 - 60 min
	Exit to Max Plan	0	0	0	0	0	0	0	0	0 - 8
	Exit Free Time	0	0	0	0	0	0	0	0	0 - 60 min
	Override Time	0	0	0	0	0	0	0	0	
	Fail Time	0	0	0	0	0	0	0	0	
	Exit Mode Time	0	0	0	0	0	0	0	0	

Priority Return and Special Intervals (next/2/5/0/6, next/2/5/9)													
Phase / Overlap -->		**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**A**	**B**	**C**	**D**	ATTACHMENT 4
Priority Return	**Enable**	*0*	0 = disabled, 1 = enabled, 2 = enabled, skip preemption phases on exit											
	A (max)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 100% of currently used max				
	B (max)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*					
	C (max)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*					
	D (max)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*					
	E (max)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*					
	Ped Clear	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 100% of currently used ped clearance				
Queue Delay Recovery		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 255 sec.				
Special Intervals	**1**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 = Dark 1 = green don't walk 2 = green walk 3 = green flashing don't walk 4 = yellow 5 = red 6 = flashing yellow WIG 7 = flashing yellow WAG 8 = flashing red WIG 9 = flashing red WAG 10 = walk only 11=flashing don't walk only
	2	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	3	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	4	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	5	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	6	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	7	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	8	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	9	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	

Light Rail Train (next/2/5/0/7)					
Light Rail Train -->	**1**	**2**	**3**	**4**	
Associated Preempt	*0*	*0*	*0*	*0*	0 = none, preempt 1 - 8
Time to Green	*0*	*0*	*0*	*0*	0 - 255 sec
Horizontal Bar Flash Time	*0.0*	*0.0*	*0.0*	*0.0*	0.0 - 25.5 sec
Vertical Bar Flash Time	*0.0*	*0.0*	*0.0*	*0.0*	
Min Duration	*0*	*0*	*0*	*0*	0 - 255 sec

Communications Data (next/2/6)

ATTACHMENT 4

1st Central Phone Number		**2nd Central Phone Number**	
Modem Setup String		**Intersection Name**	*Hwy 99w @ Springbrook Rd*
Subnet Mask	*0.0.0.0*		
IP (ethernet) Port	*0*		
Central Port	*0*		
System Mode	*0*		
System Port	*1*	**Alternate System Port**	*0*

System ID	*64*	**AB3418e Physical Address**	*1*		**IP Address**	*0.0.0.0*	
Local ID	*12*	**AB3418e Group Address**	*0*		**Gateway Address**	*0.0.0.0*	

Baud Rates		**Flow Control**	**Port Use**
Port 1 (Slot A2 Upper)	*2*	*1*	*Suggested Use - FSK*
Port 2 (Slot A2 Lower)	*2*	*1*	*Suggested Use - Not Used*
Port 3 (Slot A1 Upper)	*0*	*0*	*Suggested Use - Modem to Central*
Port 4 (Slot A1 Lower or C50S)	*2*	*N\U*	*Suggested Use - RS232 to Laptop*
0 = 1200, 1 = 2400, 2 = 9600, 3 = 19200 baud		0 = off, 1 = on	

Reports

Volume Log Period	*15*	minutes	**Volume/Occ Log Period**	*0*	second	**MOE Log Period**	*15*	minute

0 = disabled, 1,2,3,4,5,6,10,12,15,20,30,60 minutes

Function Schedule Mapping (next/2/6/7)

Alarm 1	*0*		**Soft Flash**	*1*	
Alarm 2	*0*		**Manual Control Enable (MCE)**	*4*	
Alarm 3	*0*		**Emergency or Railroad Preempt**	*1*	
Alarm 4	*0*		**Not Used**	*0*	
Alarm 5	*0*	0 = none	**Cycle Failure**	*2*	0 = none
Not Used	*0*	1 = schedule A	**Coordination Failure**	*2*	1 = schedule A
Not Used	*0*	2 = schedule B	**Keyboard use / Data Changed**	*3*	2 = schedule B
Not Used	*0*	3 = schedule C	**Coord Running / Free**	*2*	3 = schedule C
Power On / Off	*1*	4 = schedule R	**Cabinet Door**	*3*	4 = schedule R
Checksum Failure	*4*		**Extended Ped Pushbutton**	*0*	
Video / Detector Failure	*4*		**Monitor Status**	*4*	
Master to Local Comm Lost	*0*		**Red Extension**	*0*	

Miscellaneous Data

ATTACHMENT 4

Transit Priority (next/2/7)

	1	2	3	4	5	6	7	8	
Phases									Phases 1 - 8 (max of 2 compatible phases)
PE Enable (6.25Hz TP call on PE)									X = 6.25 Hz signal will activate TP
Priority	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 8, 8 = highest
Memory									X = on
Delay Time	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 255 sec
Minimum Reservice Time (per input)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 255 min
Override Time	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 255 sec
Bus Extend	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 255 sec
Minimum Reservice Time (all inputs)	*0*	0 - 255 min							
Free Operation Mode	*0*	0 = use shortest of max 1 or 2, 1 - 8 = use max time of group 1 - 8, 9 = use time of day							

Transit Priority Alternate Force Off Plans

Current Coord Plan	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
Alternate TP Force Off Plan	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 = none
Current Coord Plan	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	17 - 32 = coord plan 17 - 32
Alternate TP Force Off Plan	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	

Group Timing

	Phase -->	1	2	3	4	5	6	7	8	
Group 1	**Max Times**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 255 sec 0 would time the normal function time
	Walk Times	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Group 2	**Max Times**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Walk Times	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Group 3	**Max Times**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Walk Times	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Group 4	**Max Times**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Walk Times	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Group 5	**Max Times**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Walk Times	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Group 6	**Max Times**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Walk Times	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Group 7	**Max Times**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Walk Times	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Group 8	**Max Times**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Walk Times	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	

Truck Priority (next/2/7/9)

Truck Priority-->	1	2	3	4	
Associated Transit Priority	*0*	*0*	*0*	*0*	0 = none 1 - 8 = transit priority 1 - 8
Leading Detector	*0*	*0*	*0*	*0*	0 = none, 1 - 32 = detector 1 - 32
Trailing Detector	*0*	*0*	*0*	*0*	
Stop Bar Distance	*0*	*0*	*0*	*0*	0 - 999 feet
Trap Distance	*0*	*0*	*0*	*0*	0.0 - 99.9 feet
Minimum Speed	*0*	*0*	*0*	*0*	0 - 100 mph
Minimum Length	*0*	*0*	*0*	*0*	0 - 255 feet
Downhill Grade	*0*	*0*	*0*	*0*	0 - 20 %
Uphill Grade	*0*	*0*	*0*	*0*	
Undersized Vehicle					X = Enabled

Change I/O		X = On (After a download with a power on - off cycle)

Inputs (Non Default I/O is offset to the right) (next/2/8/1)

C1-39	*101*	*VD9*	**C1-55**	*15*	*VD5*	**C1-67**	*22*	*PED2*	**C11-15**	*254*	*N/U*
C1-40	*113*	*VD19*	**C1-56**	*11*	*VD1*	**C1-68**	*26*	*PED6*	**C11-16**	*254*	*N/U*
C1-41	*106*	*VD14*	**C1-57**	*17*	*VD7*	**C1-69**	*24*	*PED4*	**C11-17**	*254*	*N/U*
C1-42	*118*	*VD24*	**C1-58**	*13*	*VD3*	**C1-70**	*28*	*PED8*	**C11-18**	*254*	*N/U*
C1-43	*102*	*VD10*	**C1-59**	*16*	*VD6*	**C1-71**	*151*	*PE1*	**C11-19**	*254*	*N/U*
C1-44	*114*	*VD20*	**C1-60**	*12*	*VD2*	**C1-72**	*152*	*PE2*	**C11-20**	*254*	*N/U*
C1-45	*107*	*VD15*	**C1-61**	*18*	*VD8*	**C1-73**	*153*	*PE3*	**C11-21**	*254*	*N/U*
C1-46	*161*	*VD25*	**C1-62**	*14*	*VD4*	**C1-74**	*154*	*PE4*	**C11-22**	*254*	*N/U*
C1-47	*105*	*VD13*	**C11-10**	*254*	*N/U*	**C1-75**	*254*	*N/U*	**C11-23**	*254*	*N/U*
C1-48	*117*	*VD23*	**C11-11**	*254*	*N/U*	**C1-76**	*104*	*VD12*	**C11-24**	*254*	*N/U*
C1-49	*112*	*VD18*	**C11-12**	*254*	*N/U*	**C1-77**	*116*	*VD22*	**C11-25**	*254*	*N/U*
C1-50	*164*	*VD28*	**C11-13**	*254*	*N/U*	**C1-78**	*111*	*VD17*	**C11-26**	*254*	*N/U*
C1-51	*199*	*PEDI*	**C1-63**	*103*	*VD11*	**C1-79**	*163*	*VD27*	**C11-27**	*254*	*N/U*
C1-52	*155*	*PE5*	**C1-64**	*115*	*VD21*	**C1-80**	*82*	*IADV*	**C11-28**	*254*	*N/U*
C1-53	*85*	*MCE*	**C1-65**	*108*	*VD16*	**C1-81**	*137*	*MONS*	**C11-29**	*254*	*N/U*
C1-54	*254*	*N/U*	**C1-66**	*162*	*VD26*	**C1-82**	*62*	*ST1*	**C11-30**	*254*	*N/U*

Outputs (Non Default I/O is offset to the right) (next/2/8/2)

C1-2	*44*	*4DWK*	**C1-19**	*48*	*8DWK*	**C1-35**	*131*	*TO1*	**C1-91**	*41*	*1DWK*
C1-3	*64*	*4WLK*	**C1-20**	*68*	*8WLK*	**C1-36**	*132*	*TO2*	**C1-93**	*61*	*1WLK*
C1-4	*14*	*4RED*	**C1-21**	*18*	*8RED*	**C1-37**	*133*	*TO3*	**C1-94**	*106*	*OLBR*
C1-5	*24*	*4YEL*	**C1-22**	*28*	*8YEL*	**C1-38**	*134*	*TO4*	**C1-95**	*105*	*OLBY*
C1-6	*34*	*4GRN*	**C1-23**	*38*	*8GRN*	**C1-100**	*53*	*3PCL*	**C1-96**	*104*	*OLBG*
C1-7	*13*	*3RED*	**C1-24**	*17*	*7RED*	**C1-101**	*51*	*1PCL*	**C1-97**	*103*	*OLAR*
C1-8	*23*	*3YEL*	**C1-25**	*27*	*7YEL*	**C1-102**	*187*	*SFL*	**C1-98**	*102*	*OLAY*
C1-9	*33*	*3GRN*	**C1-26**	*37*	*7GRN*	**C1-103**	*147*	*WDOG*	**C1-99**	*101*	*OLAG*
C1-10	*42*	*2DWK*	**C1-27**	*46*	*6DWK*	**C1-83**	*43*	*3DWK*	**C11-1**	*254*	*N/U*
C1-11	*62*	*2WLK*	**C1-28**	*66*	*6WLK*	**C1-84**	*63*	*3WLK*	**C11-2**	*254*	*N/U*
C1-12	*12*	*2RED*	**C1-29**	*16*	*6RED*	**C1-85**	*116*	*OLDR*	**C11-3**	*254*	*N/U*
C1-13	*22*	*2YEL*	**C1-30**	*26*	*6YEL*	**C1-86**	*115*	*OLDY*	**C11-4**	*254*	*N/U*
C1-15	*32*	*2GRN*	**C1-31**	*36*	*6GRN*	**C1-87**	*114*	*OLDG*	**C11-5**	*254*	*N/U*
C1-16	*11*	*1RED*	**C1-32**	*15*	*5RED*	**C1-88**	*113*	*OLCR*	**C11-6**	*254*	*N/U*
C1-17	*21*	*1YEL*	**C1-33**	*25*	*5YEL*	**C1-89**	*112*	*OLCY*	**C11-7**	*254*	*N/U*
C1-18	*31*	*1GRN*	**C1-34**	*35*	*5GRN*	**C1-90**	*111*	*OLCG*	**C11-8**	*254*	*N/U*

Internal Logic (next/2/9)			
Step	**Inst.**	**Description**	**Comment** ATTACHMENT 4
1	*201*	Jumper Two Inputs	
2	*101*	Vehicle Detector 9	
3	*165*	Vehicle Detector 29	
4	*201*	Jumper Two Inputs	
5	*102*	Vehicle Detector 10	
6	*165*	Vehicle Detector 29	
7	*201*	Jumper Two Inputs	
8	*113*	Vehicle Detector 19	
9	*166*	Vehicle Detector 30	
10	*201*	Jumper Two Inputs	
11	*114*	Vehicle Detector 20	
12	*166*	Vehicle Detector 30	
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			
51			
52			
53			
54			
55			

Internal Logic cont.			
Step	**Inst.**	**Description**	**Comment** ATTACHMENT 4
56			
57			
58			
59			
60			
61			
62			
63			
64			
65			
66			
67			
68			
69			
70			
71			
72			
73			
74			
75			
76			
77			
78			
79			
80			
81			
82			
83			
84			
85			
86			
87			
88			
89			
90			
91			
92			
93			
94			
95			
96			
97			
98			
99			
100			
101			
102			
103			
104			
105			
106			
107			
108			
109			
110			

Internal Logic cont.			
Step	**Inst.**	**Description**	**Comment** ATTACHMENT 4
111			
112			
113			
114			
115			
116			
117			
118			
119			
120			
121			
122			
123			
124			
125			
126			
127			
128			
129			
130			
131			
132			
133			
134			
135			
136			
137			
138			
139			
140			
141			
142			
143			
144			
145			
146			
147			
148			
149			
150			
151			
152			
153			
154			
155			
156			
157			
158			
159			
160			
161			
162			
163			
164			
165			

Internal Logic cont.			
Step	**Inst.**	**Description**	**Comment** ATTACHMENT 4
166			
167			
168			
169			
170			
171			
172			
173			
174			
175			
176			
177			
178			
179			
180			
181			
182			
183			
184			
185			
186			
187			
188			
189			
190			
191			
192			
193			
194			
195			
196			
197			
198			
199			
200			
201			
202			
203			
204			
205			
206			
207			
208			
209			
210			
211			
212			
213			
214			
215			
216			
217			
218			
219			
220			

Internal Logic cont.			
Step	**Inst.**	**Description**	**Comment** ATTACHMENT 4
221			
222			
223			
224			
225			
226			
227			
228			
229			
230			
231			
232			
233			
234			
235			
236			
237			
238			
239			
240			
241			
242			
243			
244			
245			
246			
247			
248			
249			
250			
251			
252			
253			
254			
255			
256			

FYLTA - Continued (next/2/2/8/6)						
	Phase Pairs -->	**1 - 2**	**3 - 4**	**5 - 6**	**7 - 8**	
Gap-Dependent FYLTA (next/2/2/8/6-A)	**Detector Input**	*0*	*0*	*0*	*0*	0 = disable, 1 - 64 detectors
	Min Delay	*0*	*0*	*0*	*0*	0 - 255 sec
	Detector Gap	*0.0*	*0.0*	*0.0*	*0.0*	0 - 25.5 sec
	Max Delay	*0*	*0*	*0*	*0*	0 - 255 sec
	Not Ped	*0*	*0*	*0*	*0*	0 - 255 sec

FYLTA Gap-Dependent Plans (next/2/2/8/6)						
	Phase Pairs -->	**1 - 2**	**3 - 4**	**5 - 6**	**7 - 8**	
FYLTA Gap-Dependent Plan A	**Detector Input**	*0*	*0*	*0*	*0*	0 = disable, 1 - 64 detectors
	Min Delay	*0*	*0*	*0*	*0*	0 - 255 sec
	Detector Gap	*0.0*	*0.0*	*0.0*	*0.0*	0 - 25.5 sec
	Max Delay	*0*	*0*	*0*	*0*	0 - 255 sec
	Not Ped	*0*	*0*	*0*	*0*	0 - 255 sec
FYLTA Gap-Dependent Plan B	**Detector Input**	*0*	*0*	*0*	*0*	0 = disable, 1 - 64 detectors
	Min Delay	*0*	*0*	*0*	*0*	0 - 255 sec
	Detector Gap	*0.0*	*0.0*	*0.0*	*0.0*	0 - 25.5 sec
	Max Delay	*0*	*0*	*0*	*0*	0 - 255 sec
	Not Ped	*0*	*0*	*0*	*0*	0 - 255 sec
FYLTA Gap-Dependent Plan C	**Detector Input**	*0*	*0*	*0*	*0*	0 = disable, 1 - 64 detectors
	Min Delay	*0*	*0*	*0*	*0*	0 - 255 sec
	Detector Gap	*0.0*	*0.0*	*0.0*	*0.0*	0 - 25.5 sec
	Max Delay	*0*	*0*	*0*	*0*	0 - 255 sec

	Not Ped	*0*	*0*	*0*	*0*	0 - 255 sec
FYLTA Gap-Dependent Plan D	**Detector Input**	*0*	*0*	*0*	*0*	0 = disable, 1 - 64 detectors
	Min Delay	*0*	*0*	*0*	*0*	0 - 255 sec
	Detector Gap	*0.0*	*0.0*	*0.0*	*0.0*	0 - 25.5 sec
	Max Delay	*0*	*0*	*0*	*0*	0 - 255 sec
	Not Ped	*0*	*0*	*0*	*0*	0 - 255 sec

Preemption - Continued

Railroad Communications (IEEE 1570) (next/2/5/0/8)

	ATC	**Wayside**	
Railroad Number	*0*	*0*	0 - 999, represents railroad
Railroad Line Number	*0*	*0*	0 - 999, represents railroad line
Group Number	*0*	*0*	0 - 999, represents physical group of equipment
Subnode Number	*0*	*0*	0 - 99, subnode within physical group of equipment
Device Number	*0*	*0*	0 - 99, device within physical group of equipment
Associated Preempt	*0*		0 - 8
Communication Port	*0*		0 - 4

Reports - Continued

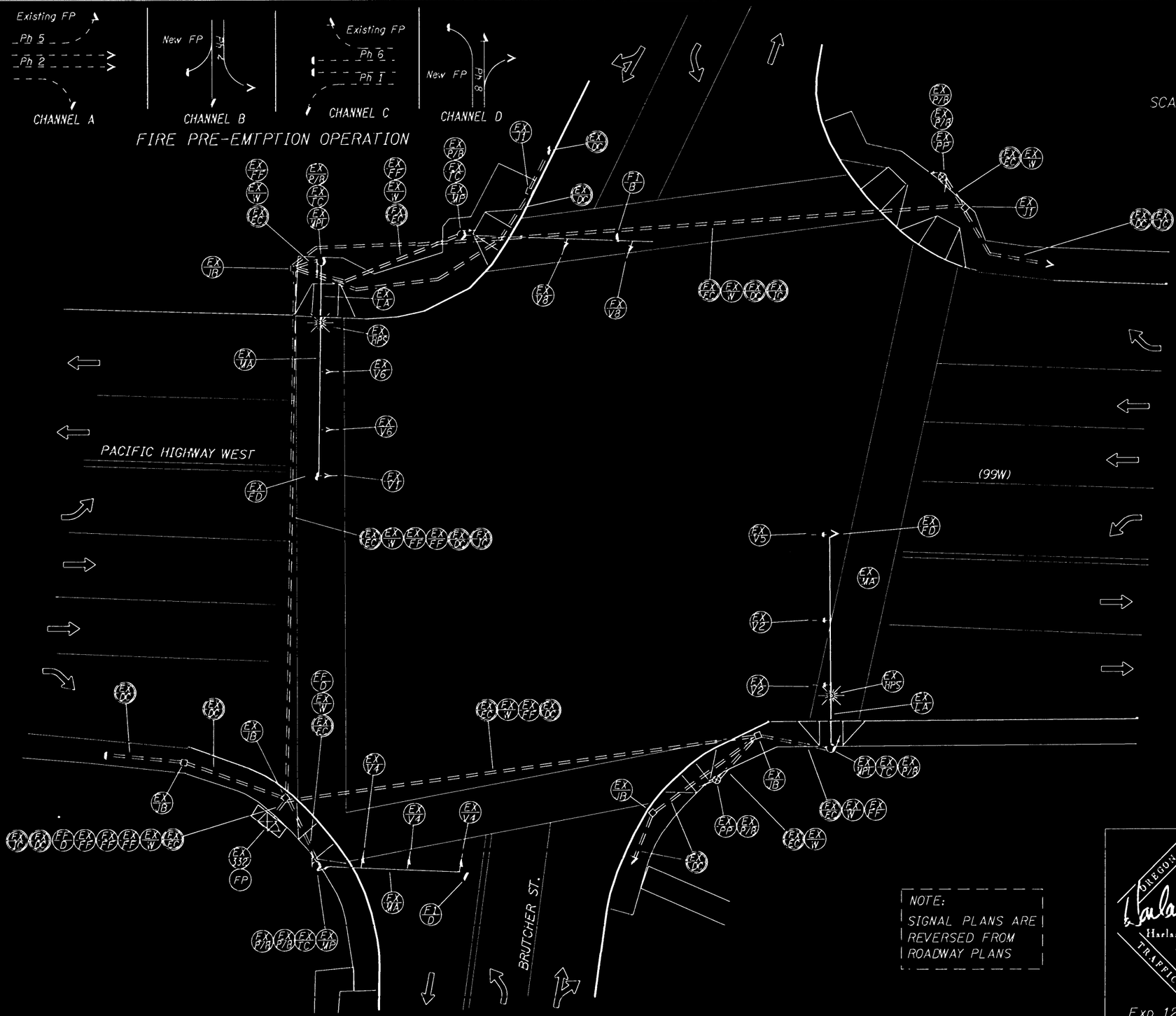
Reports - Service Delay Modes (next/2/6/0)

Phase -->	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
Mode	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 = disable, 1 = enable, 2 = Ped, 3 = Veh/P

Ped Overlap -->	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	
Mode	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 = disable, 1 = enable

Detector -->	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Enable	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Detector -->	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**
Enable	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Detector -->	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**
Enable	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Detector -->	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**
Enable	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*

12284



SIGNAL MODIFICATION PLAN
PACIFIC HWY W AT BRUTCHER ST.
HWY. 1W MP. 21.81

METRIC

SCALE 0 5 10 20 METERS

L E G E N D

- EX C — Retain and protect existing Model 170 controller and Model 332 cabinet
- EX MP — Retain and protect existing traffic signal mast arm pole
- EX MPL — Retain and protect existing traffic signal mast arm pole with luminaire extension
- EX PP — Retain and protect existing pedestrian signal pedestal
- EX MA — Retain and protect existing traffic signal mast arm
- EX LA — Retain and protect existing traffic signal luminaire arm
- EX VPh — Retain and protect existing phase (Ph) vehicle signal
- EX P/B — Retain and protect existing pedestrian signal, pushbutton and instructions
- EX TC — Retain and protect existing terminal cabinet
- EX JB — Retain and protect existing junction box
- EX JT — Retain and protect existing 440 mm x 265 mm x 305 mm precast concrete junction box
- EX W — Retain and protect existing wiring
- EX FF — Retain and protect existing fire pre-emption feeder cable
- EX FD — Retain and protect existing fire pre-emption detector unit
- EX FC — Retain and protect existing electrical conduit
- EX DC — Retain and protect existing detector conduit
- EX IC — Retain and protect existing interconnect conduit
- EX HPS — Retain and protect existing luminaire
- EN Ch — Install channel(Ch), (N) barrel fire pre-emption detector unit
- FF Ch — Install channel (Ch) fire pre-emption detector feeder cable
- FP — Install fire pre-emption device in controller

Ph = Phase shown
S = Size shown
Ch = Channel shown
N = Number shown

OREGON PROFESSIONAL ENGINEER
PTE 015
Harlan L. Naegeli
Mar. 16 1988
TRAFFIC
Exp. 12/31/2002

OREGON DEPARTMENT OF TRANSPORTATION
TRAFFIC MANAGEMENT SECTION

TRAFFIC SIGNAL INSTALLATION
BRUTCHER ST. - EVEREST ST. &
EVEREST ST. - MAIN ST. (NEWBERG) SECS.
PACIFIC HIGHWAY WEST
YAMHILL COUNTY

DATE November 2000
DESIGNED BY: H.Naegeli
CHECKED BY: T.Jenkins
DRAWN BY: H.Naegeli

A6 07022tr3.sg1

T.M.S. DWG. NO. 12284

VIEW=A6

12285

DETECTOR REPLACEMENT PLAN
PACIFIC HWY W AT BRUTCHER ST.
HWY. 1W MP. 21.81

METRIC

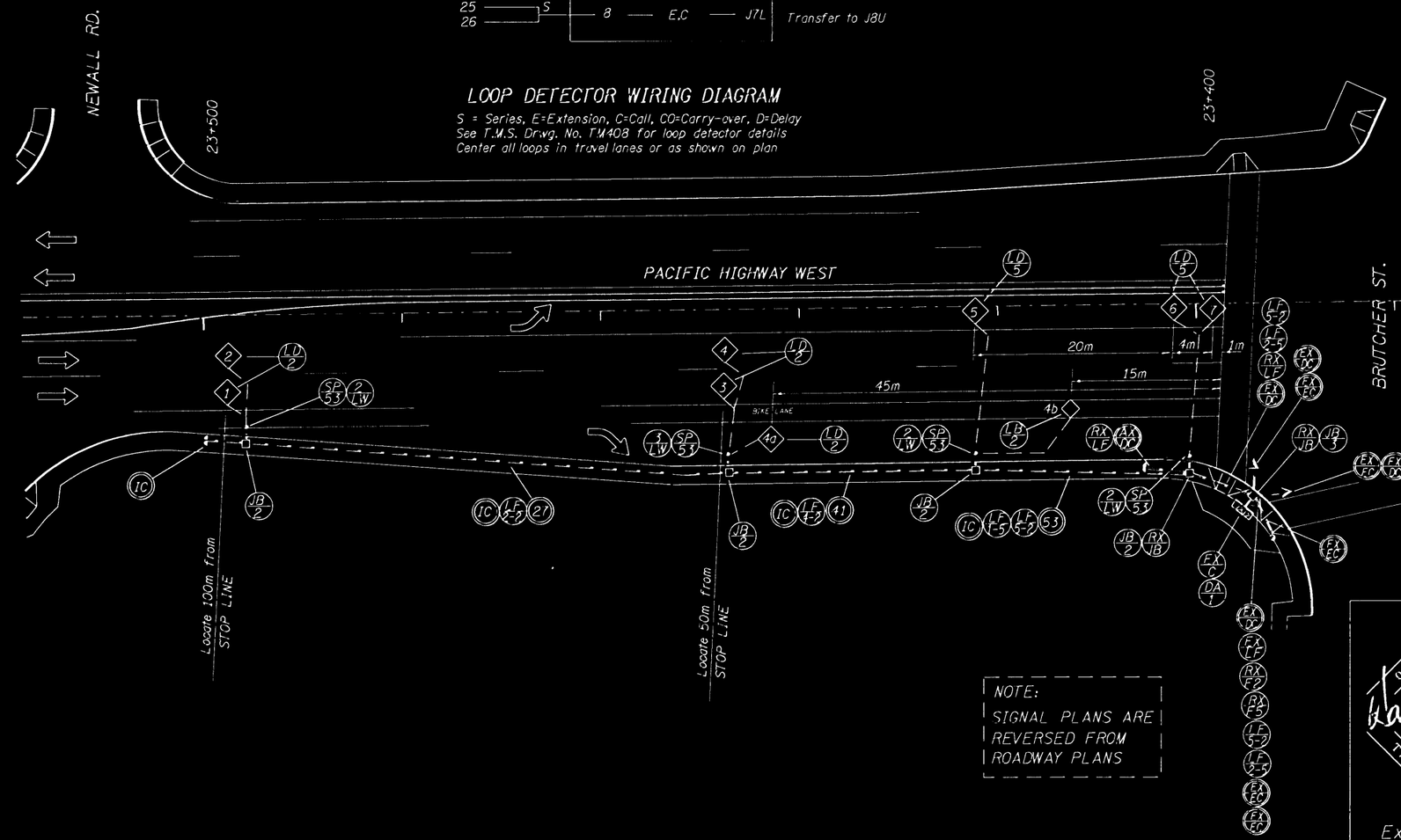
SCALE 0 10 20 40 METERS

LOOP DETECTOR WIRING DIAGRAM

S = Series, E=Extension, C=Call, CO=Carry-over, D=Delay
See T.M.S. Drwg. No. TM408 for loop detector details
Center all loops in travel lanes or as shown on plan

Loop Number		Phase	Function	Slot	
1		2	E,C	I2U	Controller Cabinet
2		2	E,C	I2L	
3	S	2	E,C	I3U	
4		2	E,C,CO	I4U	Transfer to I3U w/carryover
4a	TB2,11-12	2	E,C	I3L	
4b	TB4,1-2	5	E,C,CO	J1U	
5		5	E,C	J9U	
6	S	4	E,C,CO	I6U	
7		4	E,C,CO	I6L	
8		4	E,C	I7U	
9		4	E,C	I7L	Transfer to I8U
10	S	6	E,C	J2U	
11		6	E,C	J2L	
12	S	6	E,C	J3U	
13		1	E,C,CO	I1U	
14		1	E,C	I9U	
15		8	E,C,CO	J6U	
16	S	8	E,C,CO	J6L	
17		8	E,C	J7U	
18		8	E,C	J7L	Transfer to J8U
19	S				
20					
21					
22					
23	S				
24					
25	S				
26					

Additional loops



NOTE:
SIGNAL PLANS ARE REVERSED FROM ROADWAY PLANS

LEGEND

EX C	Retain and protect existing Model 170 controller and Model 332 cabinet
EX FF	Retain and protect existing loop feeder cable(s)
EX FC	Retain and protect existing electrical conduit
EX DC	Retain and protect existing detector conduit
EX IC	Retain and protect existing interconnect conduit
RX FFPh	Remove existing phase (Ph) loop feeder cable
RX JB	Remove existing junction box
AX DC	Abandon existing detector conduit
DA N	Install (N) loop detector amplifier in existing controller cabinet
JB 2	Install 560 mm x 305 mm x 305 mm (min. dimension) precast concrete junction box
JB 3	Install 780 mm x 430 mm x 305 mm (min. dimension) precast concrete junction box
SP S	Install 150 mm max. sand pocket block-out with (S) mm conduit to junction box
LD Ph	Install phase (Ph) 1.2 m diamond vehicle detector loop
LB Ph	Install phase (Ph) 0.7 m diamond bicycle detector loop
LF X-Ph	Install (X) phase (Ph) loop feeder cables
N LW	Install (N) pair of loop wires
S	Install (S) mm electrical conduit
IC	Interconnect conduit (See Interconnect Plan)

Ph = Phase shown
X = Number of cables shown
N = Number shown
S = Size shown

OREGON PROFESSIONAL ENGINEER
PTE 015
Harlan L. Naegeli
Mar. 16 1988
TRAFFIC
Exp. 12/31/2002

OREGON DEPARTMENT OF TRANSPORTATION
TRAFFIC MANAGEMENT SECTION

TRAFFIC SIGNAL INSTALLATION
BRUTCHER ST. - EVEREST ST. &
EVEREST ST. - MAIN ST. (NEWBERG) SECS.
PACIFIC HIGHWAY WEST
YAMHILL COUNTY

DATE November 2000
DESIGNED BY: H.Naegeli
CHECKED BY: T.Jenkins
DRAWN BY: H.Naegeli

B6 07022tr3.sg1

T.M.S. DWG. NO. 12285

VIEW-RC

15560

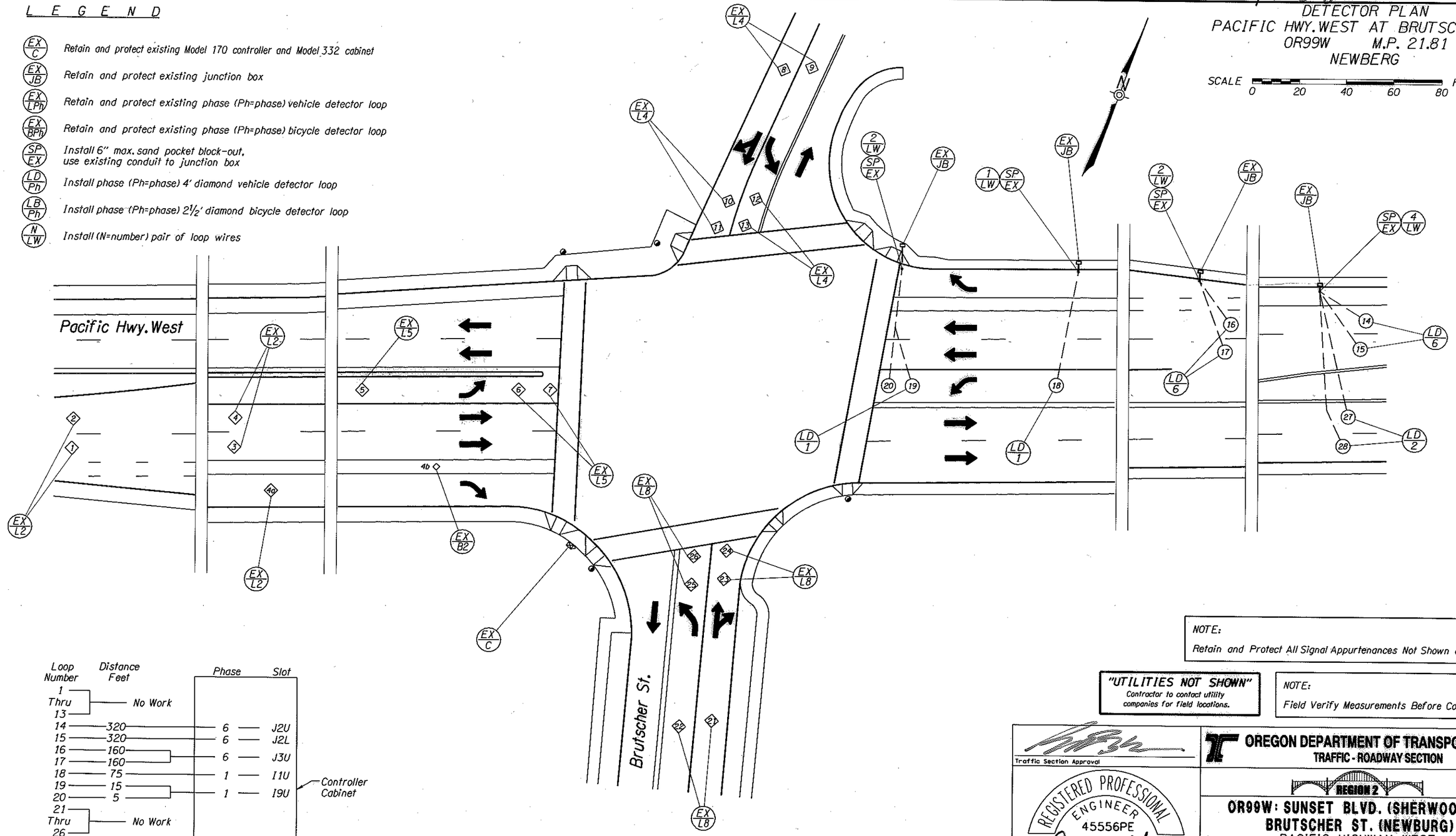
ATTACHMENT 4

DETECTOR PLAN
PACIFIC HWY. WEST AT BRUTSCHER ST.
OR99W M.P. 21.81
NEWBERG

SCALE 0 20 40 60 80 FEET

LEGEND

- (EX / C) Retain and protect existing Model 170 controller and Model 332 cabinet
- (EX / JB) Retain and protect existing junction box
- (EX / LPh) Retain and protect existing phase (Ph=phase) vehicle detector loop
- (EX / BPh) Retain and protect existing phase (Ph=phase) bicycle detector loop
- (SP / EX) Install 6" max. sand pocket block-out, use existing conduit to junction box
- (LD / Ph) Install phase (Ph=phase) 4' diamond vehicle detector loop
- (LB / Ph) Install phase (Ph=phase) 2½' diamond bicycle detector loop
- (N / LW) Install (N=number) pair of loop wires



Loop Number	Distance Feet		Phase	Slot	
1 Thru 13		No Work			
14	320		6	J2U	
15	320		6	J2L	
16	160		6	J3U	
17	160				
18	75		1	I1U	Controller Cabinet
19	15		1	I9U	
20	5				
21 Thru 26		No Work			
27	320		2(3)	I5U	Count
28	320		2(7)	J5U	Count

LOOP DETECTOR WIRING DIAGRAM
"Distance" is from Stop Line to center of loop in feet

NOTE:
Use existing loop feeder cables and match new loops to present configuration

NOTE:
Retain and Protect All Signal Appurtenances Not Shown on Plans

"UTILITIES NOT SHOWN"
Contractor to contact utility companies for field locations.

NOTE:
Field Verify Measurements Before Construction

Traffic Section Approval

REGISTERED PROFESSIONAL ENGINEER
45556PE
Dani C. Nelson
OREGON
JULY 9, 2001
DANI C. NELSON
EXPIRES: December 31, 2010

OREGON DEPARTMENT OF TRANSPORTATION
TRAFFIC - ROADWAY SECTION
REGION 2

OR99W: SUNSET BLVD. (SHERWOOD) - BRUTSCHER ST. (NEWBURG)
PACIFIC HIGHWAY WEST
WASHINGTON AND YAMHILL COUNTIES

DESIGNED BY: D. Nelson
REVIEWED BY: S. Cramer
DRAWN BY: D. Nelson
FC: 091 MP: 21.81

DETECTOR PLAN

TSSU ID. 03070 T.R.S. DWG. NO. 15560

Intersection Name	*13 - OR99W at Brustcher*	**Local ID**	*13*
Intersection Telephone Number			
System Name	*64 - Newberg-Dundee*	**System ID**	*64*
Controller Type	*Voyage - C1-C11*		
Controller Serial Number		**Installation Date**	
Programmed by		**Programmed Date**	

Graphic Map Background	**Phase Rotation Diagram**

Control Data (next/2/2)

Controller Function and Timing (next/2/1, next/2/2)

Security, Sequence, Initialization

Security Code	****	0 = disabled, or 1000-9999
Sequence	*7*	0 = sequential, 1 = quad left turn, 2-6 = special A-E, 7 = lead lag

	Lead Lag (next/2/2/3)			
	Phases 1 - 2	**Phases 3 - 4**	**Phases 5 - 6**	**Phases 7 - 8**
	2	*2*	*2*	*2*
	0 = no reversal, 1 = reversal, 2 = by coord plan or clock			

Initialization and Flash (next/2/2/5)

	Initialization	**Flash Entry**	**Flash Exit**	
Ring 1 Phase	*1*	*0*	*1*	phase 1-8
Ring 2 Phase	*5*	*0*	*5*	phase 1-8
Interval	*0*	*0*	*0*	0 = red, 1 = yellow, 2 = green

Power up Flash	*0.0*	0.0 - 25.5 seconds		**First All Red**	*8.0*	0.0 - 25.5 seconds

Soft Flash (next/2/2/5)

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	0 = dark, 1=flash yel WIG, 2 = flash yel WAG, 3 = flash red WIG, 4 = flash red WAG				
	3	*4*	*3*	*4*	*3*	*4*	*3*	*4*					
Overlap	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	same as phase
	3	*4*	*3*	*4*	*3*	*4*	*3*	*4*	*3*	*4*	*3*	*4*	
Internal Logic Output	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	0 = normal, 1 = dark, 2 = flash WIG
	0	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	

Per Phase Functions (next/2/2/3, next/2/2/1)

	1	2	3	4	5	6	7	8	ATTACHMENT 4
Phases Used	X	X		X	X	X		X	X = on
Restricted Phases									X = on (Sequence 2, 6, 7 only)
Exclusive Phases									X = on (Sequence 7 only)
Yellow Lock									
Min Recall		X				X			
Max Recall									
Ped Recall									
Red Lock									
Max Out Recall Inhibit	X	X	X	X	X	X	X	X	X = on
Soft Recall									
Free Walk Rest									
Conditional Ped									
Disable Inhibit Max Termination									
Call to Non Act 1									
Call to Non Act 2									

Dual Entry (next/2/2/9/3)

Mode	1	0 = off, 1 = on, 2 = Not Used, 3 = by coord plan, 4 = by time clock circuit 61

Dual Entry Phase -->	1	2	3	4	5	6	7	8	
Phase	0	0	0	8	0	0	0	4	0 = none, 1-8 = phase 1-8

Conditional Service, Five Section Head

Conditional Service (next/2/2/9/3)

	Mode	CS Max Time
Phase 1	0	0
Phase 3	0	0
Phase 5	0	0
Phase 7	0	0

0 = off, 1 = C.S.On. 2 = C.S. on by TOD circuit 57, 3 = N/A, 4 = C.S. and C.R. On, 5 = C.R. on by TOD circuit 57.

5 Section Head Logic (next/2/2/9/4)

X Omits Y		**Anti-Trap**		**Yellow Blanking LT**	
		Trap Protected Phase	**Next Phase**	**Phase**	
X : Y					
6 : 1	0	**1**	**< (5)**	**1**	
8 : 3	0	**3**	**< (7)**	**3**	
2 : 5	0	**5**	**< (1)**	**5**	
4 : 7	0	**7**	**< (3)**	**7**	
0=off, 1=side call, 2=no side call		X = On			

Phase Times (next/2/2/2, next/2/2/9/5)									
	1	2	3	4	5	6	7	8	ATTACHMENT 4
Movement									
Minimum Green	4	10	0	6	4	10	0	6	0 - 255 sec
Passage	2.3	4.8	0.0	2.5	2.3	4.8	0.0	2.5	0.0 - 25.5 sec
Yellow	4.0	4.5	0.0	4.0	4.0	4.5	0.0	4.0	0.0 - 25.5 sec
Red Clearance	0.5	0.5	0.0	0.5	0.5	0.5	0.0	0.5	0.0 - 25.5 sec or 0 - 255 sec
Max 1	20	50	0	25	20	50	0	25	0 - 255 sec
Max 2	20	50	0	25	20	50	0	25	0 - 255 sec
Walk	0	7	0	7	0	7	0	7	0 - 255 sec
Ped Clear	0	16	0	25	0	17	0	24	0 - 255 sec
Seconds Per Actuation	0.0	0.6	0.0	0.0	0.0	0.6	0.0	0.0	0.0 - 25.5 sec
Time Before Reduction	8	10	0	5	8	10	0	5	0 - 255 sec
Time to Reduce	3	20	0	5	3	20	0	5	0 - 255 sec
Minimum Gap	0.5	2.8	0.0	2.0	0.5	2.8	0.0	2.0	0.0 - 25.5 sec
Max Variable Initial	4	21	0	6	4	21	0	6	0 - 255 sec
Auto Max Adjust	0.0	5.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0 - 25.5 sec
Auto Max Limit	0	65	0	0	0	65	0	0	0 - 255 sec
Inhibit Min Yellow									X = On
Red Decimal Off									X = On
Advance Walk	0	0	0	0	0	0	0	0	0 - 255 sec

Other Controller Functions (next/2/2/9)									
Phase -->	1	2	3	4	5	6	7	8	
Inhibit Simultaneous Gap Out	X			X	X			X	X = On
Last Car Passage	2	0 = recall phase, 1 = last car passage, 2 = NOT recall - Not last car passage							
Red Revert (+2 seconds)	3.0	0 - 25.5 sec							
Auto Ped Clear	X	X = On							
Flashing Don't Walk Into Yellow		X = On							
Soft Recall / Red Rest Delay	0.0	0 - 25.5 sec							
Ped Pushbutton	0	0 - 5 sec, 0 = disable							
Advance Flash Rate	0	0 = disable, 1 = 120 FPM							
Change Sequence		X = On (After a download with a power on - off cycle)							
Phase -->	1	2	3	4	5	6	7	8	
Red Clear Extension Detector	0	0	0	0	0	0	0	0	0 = none 1 - 32 = detector 1 - 32
Red Clear Extension Red Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 25.5 sec.

Local Detectors (next/2/2/4)

Detector Data ATTACHMENT 4

	Yellow Lock	Detector Inhibit	Call Phase	Extend Phase	Switch Phase	Delay Time	Stretch / Disconnect Time	Delay or Disconnect Mode
Detector 1 - 18			*1*	*1*	*0*	*0*	*1.5*	*0*
Detector 2 - 19,20			*1*	*1*	*0*	*0*	*0.0*	*0*
Detector 3 - 27 ATR			*3*	*3*	*0*	*0*	*0.0*	*0*
Detector 4 -			*3*	*3*	*0*	*0*	*0.0*	*0*
Detector 5 - 5			*5*	*5*	*0*	*0*	*1.5*	*0*
Detector 6 - 6,7			*5*	*5*	*0*	*0*	*0.0*	*0*
Detector 7 - 28 ATR			*7*	*7*	*0*	*0*	*0.0*	*0*
Detector 8 -			*7*	*7*	*0*	*0*	*0.0*	*0*
Detector 9 - 1			*2*	*2*	*0*	*0*	*1.0*	*0*
Detector 10 - 2			*2*	*2*	*0*	*0*	*1.0*	*0*
Detector 11 - 3,4			*2*	*2*	*0*	*0*	*0.0*	*0*
Detector 12 - 4b			*2*	*2*	*0*	*1*	*3.0*	*0*
Detector 13 - 4a			*2*	*2*	*0*	*5*	*1.0*	*0*
Detector 14 - 8			*4*	*4*	*0*	*0*	*1.5*	*0*
Detector 15 - 9			*4*	*4*	*0*	*0*	*1.5*	*0*
Detector 16 - 10,11			*4*	*4*	*0*	*1*	*0.0*	*0*
Detector 17 - 12,13			*4*	*4*	*0*	*0*	*0.0*	*0*
Detector 18 -			*4*	*4*	*0*	*0*	*0.0*	*0*
Detector 19 - 14			*6*	*6*	*0*	*0*	*1.0*	*0*
Detector 20 - 15			*6*	*6*	*0*	*0*	*1.0*	*0*
Detector 21 - 16,17			*6*	*6*	*0*	*0*	*0.0*	*0*
Detector 22 -			*6*	*6*	*0*	*0*	*0.0*	*0*
Detector 23 -			*6*	*6*	*0*	*0*	*0.0*	*0*
Detector 24 - 21			*8*	*8*	*0*	*0*	*1.5*	*0*
Detector 25 - 22			*8*	*8*	*0*	*0*	*1.5*	*0*
Detector 26 - 23,24			*8*	*8*	*0*	*1*	*0.0*	*0*
Detector 27 - 25,26			*8*	*8*	*0*	*0*	*0.0*	*0*
Detector 28 -			*8*	*8*	*0*	*0*	*0.0*	*0*
Detector 29 -			*0*	*0*	*0*	*0*	*0.0*	*0*
Detector 30 -			*0*	*0*	*0*	*0*	*0.0*	*0*
Detector 31 -			*0*	*0*	*0*	*0*	*0.0*	*0*
Detector 32 -			*0*	*0*	*0*	*0*	*0.0*	*0*

yellow lock, detector inhibit, - X = On; call, extend, phase - 0 = none 1 - 8 = phase 1 - 8 ; delay time - 0 - 255 sec
stretch / disconnect time - 0.0 - 25.5 sec.; delay or disconnect Mode - 0 -13

Detector Plans (next/2/2/4/5)

	Loop Number									
	Plan Detectors	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 32, 0 = none, 1 -3 2 = detectors 1 - 32
Detector Plan 1	**Call Phase**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 8, 0 = none, 1 - 8 = phase 1 - 8
	Extend Phase	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Switch Phase	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Delay Time	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 255 sec
	Stretch/Disconnect Time	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	0.0 - 25.5 sec
	Delay/ Disconnect Mode	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 13
Detector Plan 2	**Call Phase**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 8, 0 = none, 1 - 8 = phase 1 - 8
	Extend Phase	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Switch Phase	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Delay Time	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 255 sec
	Stretch/Disconnect Time	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	0.0 - 25.5 sec
	Delay/ Disconnect Mode	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 13
Detector Plan 3	**Call Phase**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 8, 0 = none, 1 - 8 = phase 1 - 8
	Extend Phase	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Switch Phase	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Delay Time	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 255 sec
	Stretch/Disconnect Time	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	0.0 - 25.5 sec
	Delay/ Disconnect Mode	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 13

Detector Fail Monitor (next/2/2/4/3)					Detectors 33-64 (next/2/2/4/6)		
	Fail Monitor Enable	Recall Phase	Min Counts	Max Counts		Call Phase	Extend Phase
Detector 1 - 18		*0*	*0*	*0*	Detector 33 -	0	0
Detector 2 - 19,20		*0*	*0*	*0*	Detector 34 -	0	0
Detector 3 - 27 ATR		*0*	*0*	*0*	Detector 35 - 6,7	0	0
Detector 4 -		*0*	*0*	*0*	Detector 36 -	0	0
Detector 5 - 5		*0*	*0*	*0*	Detector 37 -	0	0
Detector 6 - 6,7		*0*	*0*	*0*	Detector 38 -	0	0
Detector 7 - 28 ATR		*0*	*0*	*0*	Detector 39 -	0	0
Detector 8 -		*0*	*0*	*0*	Detector 40 -	0	0
Detector 9 - 1		*0*	*0*	*0*	Detector 41 -	0	0
Detector 10 - 2		*0*	*0*	*0*	Detector 42 -	0	0
Detector 11 - 3,4		*0*	*0*	*0*	Detector 43 -	0	0
Detector 12 - 4b		*0*	*0*	*0*	Detector 44 -	0	0
Detector 13 - 4a		*0*	*0*	*0*	Detector 45 -	0	0
Detector 14 - 8		*0*	*0*	*0*	Detector 46 -	0	0
Detector 15 - 9		*0*	*0*	*0*	Detector 47 -	0	0
Detector 16 - 10,11		*0*	*0*	*0*	Detector 48 -	0	0
Detector 17 - 12,13		*0*	*0*	*0*	Detector 49 -	0	0
Detector 18 -		*0*	*0*	*0*	Detector 50 -	0	0
Detector 19 - 14		*0*	*0*	*0*	Detector 51 -	0	0
Detector 20 - 15		*0*	*0*	*0*	Detector 52 -	0	0
Detector 21 - 16,17		*0*	*0*	*0*	Detector 53 -	0	0
Detector 22 -		*0*	*0*	*0*	Detector 54 -	0	0
Detector 23 -		*0*	*0*	*0*	Detector 55 -	0	0
Detector 24 - 21		*0*	*0*	*0*	Detector 56 -	0	0
Detector 25 - 22		*0*	*0*	*0*	Detector 57 -	0	0
Detector 26 - 23,24		*0*	*0*	*0*	Detector 58 -	0	0
Detector 27 - 25,26		*0*	*0*	*0*	Detector 59 -	0	0
Detector 28 -		*0*	*0*	*0*	Detector 60 -	0	0
Detector 29 -		*0*	*0*	*0*	Detector 61 -	0	0
Detector 30 -		*0*	*0*	*0*	Detector 62 -	0	0
Detector 31 -		*0*	*0*	*0*	Detector 63 -	0	0
Detector 32 -		*0*	*0*	*0*	Detector 64 -	0	0
fail monitor enable - X = On, recall phase - 0 = none 1 - 8 = phase 1 - 8, min, max					call / extend phase - 0 = none 1 - 8 = phase 1 - 8		

Detector Fail Sample Period (all detectors)	*0*	0 - 255 minutes

Video Fail Inputs (next/2/2/4/3) -->	1	2	3	4	5	6	7	8	
Phase Recalled	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 = none, 1 - 8 = phase 1 - 8

System Detectors (next/2/2/4/4)									
System Detectors -->	1	2	3	4	5	6	7	8	
Local Detector	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 = none, 1 - 32 = phase 1 - 32

Overlaps / FYLTA (next/2/2/8)

Vehicle Overlaps		Phase or Movement	Phases 1	2	3	4	5	6	7	8	Extension Green	Clearance Yellow	Red
Overlaps	A		0	0	0	0	0	0	0	0	0.0	0.0	0.0
	B		0	0	0	0	0	0	0	0	0.0	0.0	0.0
	C		0	0	0	0	0	0	0	0	0.0	0.0	0.0
	D		0	0	0	0	0	0	0	0	0.0	0.0	0.0
	E		0	0	0	0	0	0	0	0	0.0	0.0	0.0
	F		0	0	0	0	0	0	0	0	0.0	0.0	0.0
	G		0	0	0	0	0	0	0	0	0.0	0.0	0.0
	H		0	0	0	0	0	0	0	0	0.0	0.0	0.0
	I		0	0	0	0	0	0	0	0	0.0	0.0	0.0
	J		0	0	0	0	0	0	0	0	0.0	0.0	0.0
	K		0	0	0	0	0	0	0	0	0.0	0.0	0.0
	L		0	0	0	0	0	0	0	0	0.0	0.0	0.0

A - D
0 = none
1 = overlap
2 = 60 FPM
3 = Not ped
4=Comp. Ph.
5=Prevent. Ext.
6=Not Veh.
7=Adv. FF

E - L
0 = no Overlap
1 = Overlap

Green,Yellow Red

Not Ped - Ped Overlaps (next/2/2/8/5)

Ped Overlaps ->		A	B	C	D	E	F	G	H
Overlaps	A								
	B								
	C								
	D								

X = Nor Ped Ped Overlap

Advance Warning (next/2/2/8/3)

	E	F	G	H	I	J	K	L	
Enable	0	0	0	0	0	0	0	0	0 = disabled, 1 = enabled
1st Conditional Overlap	0	0	0	0	0	0	0	0	0 = none, 1 - overlap E, 2 = overlap F, etc.
2nd Conditional Overlap	0	0	0	0	0	0	0	0	
Advance Deactivation Delay	0	0	0	0	0	0	0	0	0 - 99 seconds

Ped Overlaps (next/2/2/8/5)

Phase -->		1	2	3	4	5	6	7	8	Walk	Ped Clear	Ped Recall
Ped Overlap	A									0	0	
	B									0	0	
	C									0	0	
	D									0	0	
	E									0	0	
	F									0	0	
	G									0	0	
	H									0	0	

Phase, Ped Recall: X = on

Walk, Ped Clear: 0 - 255 seconds

Flashing Yellow Left Turn Arrow (FYLTA) (next/2/2/8/6)

Phase Pairs -->	1 - 2	3 - 4	5 - 6	7 - 8	
Enable	0	0	0	0	0 = off, 3 = 3 outputs, 4 = 4 outputs, 5 = 5 outputs
Even Omits Odd	0	0	0	0	0 = off, 1 = on, 2 = on, place call across barrier
Detector Switch Odd / Even	X	X	X	X	X = on, odd phase must be omitted
Red Transition	3.0	3.0	3.0	3.0	0.0 or 2.0 - 25.5 sec
Red Extension	0.0	0.0	0.0	0.0	0.0 - 25.5 sec
Return to GLTA	0	0	0	0	0 = off, 1 = max out, 2 = yellow lock

Flashing Yellow Left Turn Arrow (FYLTA) - Continued on last page

Service Plans (next/2/2/6)

ATTACHMENT 4

	Phase -->	1	2	3	4	5	6	7	8	
Service Plan 1	Call Mode	0	0	0	0	0	0	0	0	
	0 = actuated, 1 = omit, 2 = CNA, 3 = min recall, 4 = max recall, 5 = soft recall, 6 = ped recall, 7 = omit ped, 8 = red rest									
	Minimum Green	0	0	0	0	0	0	0	0	0 - 255 sec.
	Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 or 3.0 - 25.5
	Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Walk	0	0	0	0	0	0	0	0	0 - 255 sec.
	Pedestrian Clearance	0	0	0	0	0	0	0	0	0 - 255 sec.

	Phase -->	1	2	3	4	5	6	7	8	
Service Plan 2	Call Mode	0	0	0	0	0	0	0	0	
	0 = actuated, 1 = omit, 2 = CNA, 3 = min recall, 4 = max recall, 5 = soft recall, 6 = ped recall, 7 = omit ped, 8 = red rest									
	Minimum Green	0	0	0	0	0	0	0	0	0 - 255 sec.
	Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 or 3.0 - 25.5
	Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Walk	0	0	0	0	0	0	0	0	0 - 255 sec.
	Pedestrian Clearance	0	0	0	0	0	0	0	0	0 - 255 sec.

	Phase -->	1	2	3	4	5	6	7	8	
Service Plan 3	Call Mode	0	0	0	0	0	0	0	0	
	0 = actuated, 1 = omit, 2 = CNA, 3 = min recall, 4 = max recall, 5 = soft recall, 6 = ped recall, 7 = omit ped, 8 = red rest									
	Minimum Green	0	0	0	0	0	0	0	0	0 - 255 sec.
	Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 or 3.0 - 25.5
	Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Walk	0	0	0	0	0	0	0	0	0 - 255 sec.
	Pedestrian Clearance	0	0	0	0	0	0	0	0	0 - 255 sec.

	Phase -->	1	2	3	4	5	6	7	8	
Service Plan 4	Call Mode	0	0	0	0	0	0	0	0	
	0 = actuated, 1 = omit, 2 = CNA, 3 = min recall, 4 = max recall, 5 = soft recall, 6 = ped recall, 7 = omit ped, 8 = red rest									
	Minimum Green	0	0	0	0	0	0	0	0	0 - 255 sec.
	Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 or 3.0 - 25.5
	Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Walk	0	0	0	0	0	0	0	0	0 - 255 sec.
	Pedestrian Clearance	0	0	0	0	0	0	0	0	0 - 255 sec.

	Phase -->	1	2	3	4	5	6	7	8	
Service Plan 5	Call Mode	0	0	0	0	0	0	0	0	
	0 = actuated, 1 = omit, 2 = CNA, 3 = min recall, 4 = max recall, 5 = soft recall, 6 = ped recall, 7 = omit ped, 8 = red rest									
	Minimum Green	0	0	0	0	0	0	0	0	0 - 255 sec.
	Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 or 3.0 - 25.5
	Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Walk	0	0	0	0	0	0	0	0	0 - 255 sec.
	Pedestrian Clearance	0	0	0	0	0	0	0	0	0 - 255 sec.

	Phase -->	1	2	3	4	5	6	7	8	
Service Plan 6	Call Mode	0	0	0	0	0	0	0	0	
	0 = actuated, 1 = omit, 2 = CNA, 3 = min recall, 4 = max recall, 5 = soft recall, 6 = ped recall, 7 = omit ped, 8 = red rest									
	Minimum Green	0	0	0	0	0	0	0	0	0 - 255 sec.
	Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 or 3.0 - 25.5
	Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Walk	0	0	0	0	0	0	0	0	0 - 255 sec.
	Pedestrian Clearance	0	0	0	0	0	0	0	0	0 - 255 sec.

Service Plans Cont.

ATTACHMENT 4

	Phase -->	1	2	3	4	5	6	7	8	
Service Plan 7	Call Mode	0	0	0	0	0	0	0	0	
	0 = actuated, 1 = omit, 2 = CNA, 3 = min recall, 4 = max recall, 5 = soft recall, 6 = ped recall, 7 = omit ped, 8 = red rest									
	Minimum Green	0	0	0	0	0	0	0	0	0 - 255 sec.
	Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 or 3.0 - 25.5
	Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Walk	0	0	0	0	0	0	0	0	0 - 255 sec.
	Pedestrian Clearance	0	0	0	0	0	0	0	0	0 - 255 sec.

	Phase -->	1	2	3	4	5	6	7	8	
Service Plan 8	Call Mode	0	0	0	0	0	0	0	0	
	0 = actuated, 1 = omit, 2 = CNA, 3 = min recall, 4 = max recall, 5 = soft recall, 6 = ped recall, 7 = omit ped, 8 = red rest									
	Minimum Green	0	0	0	0	0	0	0	0	0 - 255 sec.
	Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 or 3.0 - 25.5
	Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
	Walk	0	0	0	0	0	0	0	0	0 - 255 sec.
	Pedestrian Clearance	0	0	0	0	0	0	0	0	0 - 255 sec.

Max Plans (next/2/2/7)

	Phase -->	1	2	3	4	5	6	7	8	
Max Plan 1	Normal Max	25	65	0	25	25	65	0	25	0 - 255 sec
	Fail Max	0	0	0	0	0	0	0	0	
	Auto Max Adjust	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 25.5 sec
	Auto Max Limit	0	0	0	0	0	0	0	0	0 - 255 sec
Max Plan 2	Normal Max	25	80	0	30	25	80	0	30	0 - 255 sec
	Fail Max	0	0	0	0	0	0	0	0	
	Auto Max Adjust	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 25.5 sec
	Auto Max Limit	0	0	0	0	0	0	0	0	0 - 255 sec
Max Plan 3	Normal Max	25	80	0	35	30	80	0	40	0 - 255 sec
	Fail Max	0	0	0	0	0	0	0	0	
	Auto Max Adjust	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 25.5 sec
	Auto Max Limit	0	0	0	0	0	0	0	0	0 - 255 sec
Max Plan 4	Normal Max	30	90	0	35	30	90	0	35	0 - 255 sec
	Fail Max	0	0	0	0	0	0	0	0	
	Auto Max Adjust	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 25.5 sec
	Auto Max Limit	0	0	0	0	0	0	0	0	0 - 255 sec
Max Plan 5	Normal Max	0	0	0	0	0	0	0	0	0 - 255 sec
	Fail Max	0	0	0	0	0	0	0	0	
	Auto Max Adjust	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 25.5 sec
	Auto Max Limit	0	0	0	0	0	0	0	0	0 - 255 sec
Max Plan 6	Normal Max	25	90	0	30	25	90	0	30	0 - 255 sec
	Fail Max	0	0	0	0	0	0	0	0	
	Auto Max Adjust	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 25.5 sec
	Auto Max Limit	0	0	0	0	0	0	0	0	0 - 255 sec
Max Plan 7	Normal Max	20	65	0	20	20	65	0	20	0 - 255 sec
	Fail Max	0	0	0	0	0	0	0	0	
	Auto Max Adjust	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 25.5 sec
	Auto Max Limit	0	0	0	0	0	0	0	0	0 - 255 sec
Max Plan 8	Normal Max	0	0	0	0	0	0	0	0	0 - 255 sec
	Fail Max	0	0	0	0	0	0	0	0	
	Auto Max Adjust	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 25.5 sec
	Auto Max Limit	0	0	0	0	0	0	0	0	0 - 255 sec

Coordination Data (next/2/3)

ATTACHMENT 4

Coordination Modes (next/2/3/1, next/2/3/4/1, next/2/3/4/3)

Flash Mode	*33*	0=off, 1=on, 33=time clock, 34=comm, 35=hardwire, 36=NWS Set only, 37=AB3418 / NTCIP S
Coordination Plan Mode	*33*	0=free, 1-32 = coord plan 1-32, 33=time clock, 34=comm, 35=hardwire, 36=NWS Set only, 37=
Offset Seeking Mode	*2*	0=add only, 1=dwell, 2=fastway
Late Ped	*0*	0 = off, 1 = on
Coord Walk Rest	*0*	0 = off, 1 = on, 2 = by TOD circuit 160, 3 = end of walk, 4 = coord ped during perms
Repeated Phase Service	*0*	0=off, 1=on (no coord ped), 2=on (beginning green coord ped), 3=on (coord ped always)
Zero Mode (TS2 only)	*0*	0=start of main street, 1=end of main street, 2=by TOD circuit 144

Phase -->	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	0 = service allowed 1 = service prevented
Omit Phase During Repeated Phase Service	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Auto Permissive Min Green	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 255 seconds

Coordination Plans (next/2/3/2)

Coord Plan	**Coordination Phases**		**Cycle Length**	**Offset Time**	**Min Cycle Length Dwell Time**	**Permissive**	**Service Plan**	**Max Plan**
	Ring 1	**Ring 2**						
1 -	*2*	*6*	*90*	*57*	*0*	*0*	*0*	*1*
2 -	*2*	*6*	*100*	*80*	*0*	*0*	*0*	*2*
3 -	*2*	*6*	*110*	*28*	*0*	*0*	*0*	*3*
4 -	*2*	*6*	*120*	*55*	*0*	*0*	*0*	*4*
5 -	*2*	*6*	*0*	*0*	*0*	*0*	*0*	*0*
6 -	*2*	*6*	*100*	*71*	*0*	*0*	*0*	*6*
7 -	*2*	*6*	*0*	*0*	*0*	*0*	*0*	*0*
8 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
9 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
10 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
11 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
12 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
13 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
14 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
15 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
16 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
17 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
18 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
19 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
20 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
21 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
22 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
23 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
24 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
25 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
26 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
27 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
28 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
29 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
30 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
31 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
32 -	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	0 - 8		0 - 255 sec.				0 - 8	

Coordination Plans cont.

ATTACHMENT 4

Coord Plan	* = Force Offs / Split Times (TS2)								* = Yield Points / Actuated Times (TS2)	
	1	2	3	4	5	6	7	8	Ring 1	Ring 2
1 -	15	57	0	18	15	57	0	18	5	15
2 -	15	65	0	20	15	65	0	20	15	5
3 -	18	64	0	28	20	62	0	28	20	5
4 -	20	72	0	28	20	72	0	28	5	5
5 -	0	0	0	0	0	0	0	0	0	0
6 -	18	62	0	20	18	62	0	20	20	5
7 -	0	0	0	0	0	0	0	0	0	0
8 -	0	0	0	0	0	0	0	0	0	0
9 -	0	0	0	0	0	0	0	0	0	0
10 -	0	0	0	0	0	0	0	0	0	0
11 -	0	0	0	0	0	0	0	0	0	0
12 -	0	0	0	0	0	0	0	0	0	0
13 -	0	0	0	0	0	0	0	0	0	0
14 -	0	0	0	0	0	0	0	0	0	0
15 -	0	0	0	0	0	0	0	0	0	0
16 -	0	0	0	0	0	0	0	0	0	0
17 -	0	0	0	0	0	0	0	0	0	0
18 -	0	0	0	0	0	0	0	0	0	0
19 -	0	0	0	0	0	0	0	0	0	0
20 -	0	0	0	0	0	0	0	0	0	0
21 -	0	0	0	0	0	0	0	0	0	0
22 -	0	0	0	0	0	0	0	0	0	0
23 -	0	0	0	0	0	0	0	0	0	0
24 -	0	0	0	0	0	0	0	0	0	0
25 -	0	0	0	0	0	0	0	0	0	0
26 -	0	0	0	0	0	0	0	0	0	0
27 -	0	0	0	0	0	0	0	0	0	0
28 -	0	0	0	0	0	0	0	0	0	0
29 -	0	0	0	0	0	0	0	0	0	0
30 -	0	0	0	0	0	0	0	0	0	0
31 -	0	0	0	0	0	0	0	0	0	0
32 -	0	0	0	0	0	0	0	0	0	0
	0 - 255 sec * = force offs and yield points									

Circuit Mapping (next/2/3/3)

Circuit Map	Coord Plan	Time Clock Circuit		Time Clock Circuit		Time Clock Circuit		Time Clock Circuit		Time Clock Circuit		Time Clock Circuit		Time Clock Circuit		Time Clock Circuit	
1	*1*	*97*	LG1	*173*	DPA	*161*	SI1	*164*	SI4	*165*	SI5	*0*	N/U	*0*	N/U	*0*	N/U
2	*2*	*99*	LG5	*173*	DPA	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U
3	*3*	*99*	LG5	*173*	DPA	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U
4	*4*	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U
5	*34*	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U
6	*6*	*99*	LG5	*173*	DPA	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U
7	*34*	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U
8	*34*	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U
9	*34*	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U
10	*34*	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U
11	*34*	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U
12	*34*	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U
13	*34*	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U
14	*34*	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U
15	*34*	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U
16	*34*	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U
17	*34*	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U
18	*34*	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U
19	*34*	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U
20	*34*	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U	*0*	N/U

coord plan - 0 = free, 1 - 32 = coord plan 1 - 32, 33 = any, 34 none selected
time clock circuits - 0 = not used, or circuits 6 - 196

Dynamic Phase Length (next/2/3/4/4)

		1	2	3	4	5	6	7	8	
Phase -->		**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
Back Detector		*1*	*29*	*0*	*30*	*5*	*31*	*0*	*32*	0 = none, 1-32 = detector 1-32
Lane Factor		*1.0*	*2.0*	*0*	*2.0*	*1.0*	*2.0*	*0*	*2.0*	0 = none, 1.0 - 5.0
Check Out Detector		*0*	*5*	*0*	*0*	*0*	*1*	*0*	*0*	0 = none, 1-32 = detector 1-32
Coord Delta Force Off	**Set A**	*5*	*5*	*0*	*5*	*5*	*5*	*0*	*5*	0 - 255 sec
	Set B	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Set C	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Set D	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Free Delta Max	**Set A**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Set B	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Set C	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	Set D	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	

Platoon Progression (next/2/3/4/5)

Entry Local Only			Master Local Only		
Platoon Max	*0*	0 - 255 sec	**Smoothing Factor**	*0.0*	0.0 - 1.0
Min Platoon Green	*0*	0 - 255 sec			
Entry Detector Gap	*0.0*	0.0 - 25.5			
Min Platoon Cycle	*0*	0 - 255 sec			

Inbound			Outbound		
Only for Entry Inbound Local or Master Local			**Only for Entry Outbound Local or Master Local**		
Entry IB Local also Last OB Local	*0*	0 - 50	**Entry OB Local also Last IB Local**	*0*	0 - 50
Speed	*0*	0 - 55 mph	**Speed**	*0*	0 - 55 mph
Distance from Entry Local	*0*	0 - 65000 feet	**Distance from Entry Local**	*0*	0 - 65000 feet

Entry Local Only				Entry Local Only			
Distance from Entry Local Detector	*0*	0 - 999 feet		**Distance from Entry Local Detector**	*0*	0 - 999 feet	
Entry Local Detector	*0*	*0*	0 - 32	**Entry Local Detector**	*0*	*0*	0 - 32

Master Local				Master Local			
Master Mid - System Critical Detectors	*0*	*0*	0 - 16	**Master Mid - System Critical Detectors**	*0*	*0*	0 - 16

Force Off Percents

Inbound	1	3	4	5	7	8	Outbound	1	3	4	5	7	8
Split 1	*0*	*0*	*0*	*0*	*0*	*0*	**Split 1**	*0*	*0*	*0*	*0*	*0*	*0*
Split 2	*0*	*0*	*0*	*0*	*0*	*0*	**Split 2**	*0*	*0*	*0*	*0*	*0*	*0*
	0 - 100 %							0 - 100 %					

Time of Day Data (next/2/4)

ATTACHMENT 4

Day Program (next/2/4/1)

	Day Prog.	Time	Coord Plan	Coord Plan or Circuit		State On / Off		Day Prog.	Time	Coord Plan	Coord Plan or Circuit		State On/Off
1	*1*	*06:00*	*X*	*1*			**51**						
2	*1*	*07:30*	*X*	*2*			**52**						
3	*1*	*10:30*	*X*	*3*			**53**						
4	*1*	*16:00*	*X*	*4*			**54**						
5	*1*	*18:00*	*X*	*3*			**55**						
6	*1*	*20:00*	*X*	*0*			**56**						
7	*2*	*07:30*	*X*	*1*			**57**						
8	*2*	*10:00*	*X*	*6*			**58**						
9	*2*	*18:00*	*X*	*0*			**59**						
10							**60**						
11							**61**						
12							**62**						
13							**63**						
14							**64**						
15							**65**						
16							**66**						
17							**67**						
18							**68**						
19							**69**						
20							**70**						
21							**71**						
22							**72**						
23							**73**						
24							**74**						
25							**75**						
26							**76**						
27							**77**						
28							**78**						
29							**79**						
30							**80**						
31							**81**						
32							**82**						
33							**83**						
34							**84**						
35							**85**						
36							**86**						
37							**87**						
38							**88**						
39							**89**						
40							**90**						
41							**91**						
42							**92**						
43							**93**						
44							**94**						
45							**95**						
46							**96**						
47							**97**						
48							**98**						
49							**99**						
50							**100**						
	1 - 15	hh : mm	X = on	coord plan 0 - 32 or circuit 1-196		X = on		1 - 15	hh : mm	X = on	coord plan 0 - 32 or circuit 1-196		X = on

Day Program cont.													
	Day Prog.	Time	Coord Plan	Coord Plan or Circuit		State On / Off		Day Prog.	Time	Coord Plan	Coord Plan or Circuit		State On / Off
101							151						
102							152						
103							153						
104							154						
105							155						
106							156						
107							157						
108							158						
109							159						
110							160						
111							161						
112							162						
113							163						
114							164						
115							165						
116							166						
117							167						
118							168						
119							169						
120							170						
121							171						
122							172						
123							173						
124							174						
125							175						
126							176						
127							177						
128							178						
129							179						
130							180						
131							181						
132							182						
133							183						
134							184						
135							185						
136							186						
137							187						
138							188						
139							189						
140							190						
141							191						
142							192						
143							193						
144							194						
145							195						
146							196						
147							197						
148							198						
149							199						
150							200						
	1 - 15	hh : mm	X = on	coord plan 0 - 32 or circuit 1-196		X = on		1 - 15	hh : mm	X = on	coord plan 0 - 32 or circuit 1-196		X = on

Week Program (next/2/4/2)

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	1	1	1	1	1	2
2	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1

0 = none, 1 - 15 = day plan

Exception Days (next/2/4/6)

	DOW	WOM	DOM	MOY	Day Prog.
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
	0-10	0 - 5	0-31	0-12	0 - 15

Year Program (next/2/4/3)

From Date	To Date	Week Program
01/01/2014	12/31/2014	1

ATTACHMENT 4

New Years Day - Date - January 1st

Martin Luther King Day - DOW WOM - 3rd Monday of January

President's Day - DOW WOM - 3rd Monday February

Memorial Day - DOW WOM - Last Monday May

Fourth of July - Date - July 4th

Labor Day - DOW WOM - 1st Monday September

Columbus Day - DOW WOM - 2nd Monday October

Veteran's Day - Date - November 11th

Thanksgiving - DOW WOM - 4th Thursday November

Christmas - Date - December 25th

Time Clock References (next/2/4/5)

Synch reference Mode	0	0 = timed, 1 = by event
Synch Reference Time	00:00	00:00 - 23:59
Daylight Savings Enable	X	X = on
Reset Time	04:00	00:00 - 23:59

Exception day headings - DOW = Day of Week, WOM = Week of Month, DOM = Day of Month, MOY = Month of Year

Circuit Overrides (next/2/4/4)							
1 - Coord Line 1	CL1	*TOD*	On / Off / TOD	51 - Ped Omit 3	PO3	*TOD*	On / Off / TOD
2 - Coord Line 2	CL2	*TOD*		52 - Ped Omit 4	PO4	*TOD*	
3 - Coord Line 4	CL4	*TOD*		53 - Ped Omit 5	PO5	*TOD*	
4 - Coord Line 8	CL8	*TOD*		54 - Ped Omit 6	PO6	*TOD*	
5 - Coord Line 16	C16	*TOD*		55 - Ped Omit 7	PO7	*TOD*	
6 - Coord Operation	CRD	*TOD*		56 - Ped Omit 8	PO8	*TOD*	
7 - Soft Flash	SFL	*TOD*		57 - Conditional Service	CVS	*TOD*	
8 - Enable System Relays	ESR	*TOD*		58 - Inhibit Simultaneous Gap Out	ISG	*On*	
9 - Call to Non Act 1	CN1	*TOD*		59 - Inhibit Hardwire	HWI	*TOD*	
10 - Call to Non Act 2	CN2	*TOD*		60 - Ped Override Mode	POM	*On*	
11 - Walk Rest Modifier	WRM	*TOD*		61 - Dual Entry	DLE	*On*	
12 - Min Recall	MIN	*TOD*		62 - Exclusive Ped	EPD	*TOD*	
13 - Max 2 Both Rings	MX2	*TOD*		63 - Call to Time Clock Mode	CTC	*TOD*	
14 - Coord Inhibit Max Ring 1, 2	IMT	*TOD*		64 - Dual Enhanced Ped	DEP	*TOD*	
15 - Enable Service Log	ESL	*TOD*		65 - Service Plan 1	SP1	*TOD*	
16 - Call to Free	CTF	*TOD*		66 - Service Plan 2	SP2	*TOD*	
17 - TOD Output 1	TO1	*TOD*		67 - Service Plan 3	SP3	*TOD*	
18 - TOD Output 2	TO2	*TOD*		68 - Service Plan 4	SP4	*TOD*	
19 - TOD Output 3	TO3	*TOD*		69 - Service Plan 5	SP5	*TOD*	
20 - TOD Output 4	TO4	*TOD*		70 - Service Plan 6	SP6	*TOD*	
21 - TOD Output 5	TO5	*TOD*		71 - Service Plan 7	SP7	*TOD*	
22 - TOD Output 6	TO6	*TOD*		72 - Service Plan 8	SP8	*TOD*	
23 - TOD Output 7	TO7	*TOD*		73 - Max Plan 1	MP1	*TOD*	
24 - TOD Output 8	TO8	*TOD*		74 - Max Plan 2	MP2	*TOD*	
25 - Vehicle Call Phase 1	VC1	*TOD*		75 - Max Plan 3	MP3	*TOD*	
26 - Vehicle Call Phase 2	VC2	*TOD*		76 - Max Plan 4	MP4	*TOD*	
27 - Vehicle Call Phase 3	VC3	*TOD*		77 - Max Plan 5	MP5	*TOD*	
28 - Vehicle Call Phase 4	VC4	*TOD*		78 - Max Plan 6	MP6	*TOD*	
29 - Vehicle Call Phase 5	VC5	*TOD*		79 - Max Plan 7	MP7	*TOD*	
30 - Vehicle Call Phase 6	VC6	*TOD*		80 - Max Plan 8	MP8	*TOD*	
31 - Vehicle Call Phase 7	VC7	*TOD*		81 - Transit Priority Max Group 1	TG1	*TOD*	
32 - Vehicle Call Phase 8	VC8	*TOD*		82 - Transit Priority Max Group 2	TG2	*TOD*	
33 - Ped Call Phase 1	PC1	*TOD*		83 - Transit Priority Max Group 3	TG3	*TOD*	
34 - Ped Call Phase 2	PC2	*TOD*		84 - Transit Priority Max Group 4	TG4	*TOD*	
35 - Ped Call Phase 3	PC3	*TOD*		85 - Transit Priority Max Group 5	TG5	*TOD*	
36 - Ped Call Phase 4	PC4	*TOD*		86 - Transit Priority Max Group 6	TG6	*TOD*	
37 - Ped Call Phase 5	PC5	*TOD*		87 - Transit Priority Max Group 7	TG7	*TOD*	
38 - Ped Call Phase 6	PC6	*TOD*		88 - Transit Priority Max Group 8	TG8	*TOD*	
39 - Ped Call Phase 7	PC7	*TOD*		89 - Inhibit Volume Density 1	IV1	*TOD*	
40 - Ped Call Phase 8	PC8	*TOD*		90 - Inhibit Volume Density 2	IV2	*TOD*	
41 - Vehicle Omit 1	VO1	*TOD*		91 - Inhibit Volume Density 3	Iv3	*TOD*	
42 - Vehicle Omit 2	VO2	*TOD*		92 - Inhibit Volume Density 4	IV4	*TOD*	
43 - Vehicle Omit 3	VO3	*TOD*		93 - Inhibit Volume Density 5	IV5	*TOD*	
44 - Vehicle Omit 4	VO4	*TOD*		94 - Inhibit Volume Density 6	IV6	*TOD*	
45 - Vehicle Omit 5	VO5	*TOD*		95 - Inhibit Volume Density 7	IV7	*TOD*	
46 - Vehicle Omit 6	VO6	*TOD*		96 - Inhibit Volume Density 8	IV8	*TOD*	
47 - Vehicle Omit 7	VO7	*TOD*		97 - Lag 1	LG1	*TOD*	
48 - Vehicle Omit 8	VO8	*TOD*		98 - Lag 3	LG3	*TOD*	
49 - Ped Omit 1	PO1	*TOD*		99 - Lag 5	LG5	*TOD*	
50 - Ped Omit 2	PO2	*TOD*		100 - Lag 7	LG7	*TOD*	

Circuit Overrides cont.							
101 - Inhibit Overlap A	**OLA**	*TOD*	On / Off / TOD	**151 - Coord Hold 7**	**HD7**	*TOD*	On / Off / TOD
102 - Inhibit Overlap B	**OLB**	*TOD*		**152 - Coord Hold 8**	**HD8**	*TOD*	
103 - Inhibit Overlap C	**OLC**	*TOD*		**153 - PE Priority Return B**	**PRB**	*TOD*	
104 - Inhibit Overlap D	**OLD**	*TOD*		**154 - PE Priority Return C**	**PRC**	*TOD*	
105 - Enable Schedule A Phone 1	**AT1**	*TOD*		**155 - PE Priority Return D**	**PRD**	*TOD*	
106 - Enable Schedule A Phone 2	**AT2**	*TOD*		**156 - PE Priority Return E**	**PRE**	*TOD*	
107 - Enable Schedule B Phone 1	**BT1**	*TOD*		**157 - Platoon Inbound**	**PPI**	*TOD*	
108 - Enable Schedule B Phone 2	**BT2**	*TOD*		**158 - Platoon Outbound**	**PPO**	*TOD*	
109 - Enable Schedule C Phone 1	**CT1**	*TOD*		**159 - Platoon Spl 2**	**PS2**	*TOD*	
110 - Enable Schedule C Phone 2	**CT2**	*TOD*		**160 - Coord Walk Rest**	**CWR**	*TOD*	
111 - Enable Volume to Call Phone 1	**VT1**	*TOD*		**161 - Dynamic Phase Length Short Inhibit 1**	**SI1**	*TOD*	
112 - Enable Volume to Call Phone 2	**VT2**	*TOD*		**162 - Dynamic Phase Length Short Inhibit 2**	**SI2**	*TOD*	
113 - Enable Volume Logging	**EVL**	***On***		**163 - Dynamic Phase Length Short Inhibit 3**	**SI3**	*TOD*	
114 - Enable MOE Logging	**EML**	***On***		**164 - Dynamic Phase Length Short Inhibit 4**	**SI4**	*TOD*	
115 - Detector Low Threshold Inhibit	**DLI**	*TOD*		**165 - Dynamic Phase Length Short Inhibit 5**	**SI5**	*TOD*	
116 - Detector Continue Presence Inhibit	**DPI**	*TOD*		**166 - Dynamic Phase Length Short Inhibit 6**	**SI6**	*TOD*	
117 - Inhibit Detector Based on Programming	**IND**	*TOD*		**167 - Dynamic Phase Length Short Inhibit 7**	**SI7**	*TOD*	
118 - Inhibit Detector Delay	**IDD**	*TOD*		**168 - Dynamic Phase Length Short Inhibit 8**	**SI8**	*TOD*	
119 - Inhibit Conditional Ped	**ICP**	*TOD*		**169 - Coord Late Left Turn 1**	**CT1**	*TOD*	
120 - Inhibit Transit Priority	**ITP**	*TOD*		**170 - Coord Late Left Turn 3**	**CT3**	*TOD*	
121 - Red Rest Ring 1,2	**RRM**	*TOD*		**171 - Coord Late Left Turn 5**	**CT5**	*TOD*	
122 - Enable Transcend	**TRA**	*TOD*		**172 - Coord Late Left Turn 7**	**CT7**	*TOD*	
123 - Omit Red Clear Ring 1,2	**ORC**	*TOD*		**173 - Dynamic Phase Length Enable A**	**DPA**	*TOD*	
124 - Not Used	**N/U**	*TOD*		**174 - Dynamic Phase Length Enable B**	**DPB**	*TOD*	
125 - Ped Recycle Ring 1,2	**PCY**	*TOD*		**175 - Dynamic Phase Length Enable C**	**DPC**	*TOD*	
126 - Not Used	**N/U**	*TOD*		**176 - Dynamic Phase Length Enable D**	**DPD**	*TOD*	
127 - Enable MOE Log to Call Phone 1	**MT1**	*TOD*		**177 - Proactive Plan Select Average**	**PSA**	*TOD*	
128 - Enable MOE Log to Call Phone 2	**MT2**	*TOD*		**178 - Proactive Plan Select Inbound**	**PSI**	*TOD*	
129 - Transit Inhibit Short Time 1	**IS1**	*TOD*		**179 - Proactive Plan Select Outbound**	**PSO**	*TOD*	
130 - Transit Inhibit Short Time 2	**IS2**	*TOD*		**180 - Split Variant Inbound**	**SVI**	*TOD*	
131 - Transit Inhibit Short Time 3	**IS3**	*TOD*		**181 - Split Variant Outbound**	**SVO**	*TOD*	
132 - Transit Inhibit Short Time 4	**IS4**	*TOD*		**182 - Disable Coord Walk Rest Ring 1**	**DW1**	*TOD*	
133 - Transit Inhibit Short Time 5	**IS5**	*TOD*		**183 - Disable Coord Walk Rest Ring 2**	**DW2**	*TOD*	
134 - Transit Inhibit Short Time 6	**IS6**	*TOD*		**184 - Proactive Plan Select New Look**	**NLK**	*TOD*	
135 - Transit Inhibit Short Time 7	**IS7**	*TOD*		**185 - Disable Red Clearance Extension**	**DRX**	*TOD*	
136 - Transit Inhibit Short Time 8	**IS8**	*TOD*		**186 - Detector Plan Line 1**	**DL1**	*TOD*	
137 - Enable Transit Priority Logging	**ETL**	*TOD*		**187 - Detector Plan Line 2**	**DL2**	*TOD*	
138 - Disable Flashing Yellow Arrow 1	**DF1**	*TOD*		**188 - Disable LRT 1 Vertical Flashing Bar**	**DV1**	*TOD*	
139 - Disable Flashing Yellow Arrow 3	**DF3**	*TOD*		**189 - Disable LRT 2 Vertical Flashing Bar**	**DV2**	*TOD*	
140 - Disable Flashing Yellow Arrow 5	**DF5**	*TOD*		**190 - Disable LRT 3 Vertical Flashing Bar**	**DV3**	*TOD*	
141 - Disable Flashing Yellow Arrow 7	**DF7**	*TOD*		**191 - Disable LRT 4 Vertical Flashing Bar**	**DV4**	*TOD*	
142 - Disable Auto Max	**DAM**	*TOD*		**192 - Datakey Enable**	**DKE**	***On***	
143 - Disable Repeat Phase Service	**DRS**	*TOD*		**193 - Dynamic Phase Reversal Enable 1**	**DR1**	*TOD*	
144 - Coord End of Main Street	**EMS**	*TOD*		**194 - Dynamic Phase Reversal Enable 3**	**DR3**	*TOD*	
145 - Coord Hold 1	**HD1**	*TOD*		**195 - Dynamic Phase Reversal Enable 5**	**DR5**	*TOD*	
146 - Coord Hold 2	**HD2**	*TOD*		**196 - Dynamic Phase Reversal Enable 7**	**DR7**	*TOD*	
147 - Coord Hold 3	**HD3**	*TOD*		**197 - Enable Coord Logging**	**ECL**	*TOD*	
148 - Coord Hold 4	**HD4**	*TOD*		**198 - Disable Gap FYLTA 1,3,5,7**	**DGF**	*TOD*	
149 - Coord Hold 5	**HD5**	*TOD*		**199 - Coordination Auto Walk**	**CAW**	*TOD*	
150 - Coord Hold 6	**HD6**	*TOD*		**200 - Enable Coordinated Auto Max**	**ECM**	*TOD*	

Preemption Data (next/2/5)

ATTACHMENT 4

Sequence (next/2/5/1 - 8)

Sequences / Intervals		Instruction	Phases Serviced	Interval Time	Hold On Input	Outputs On	Output Mode
1	1	*197*	*25*	*0*	*1*		*0*
	2	*98*		*0*	*0*		*0*
	3	*0*		*0*	*0*		*0*
	4	*0*		*0*	*0*		*0*
	5	*0*		*0*	*0*		*0*
	6	*0*		*0*	*0*		*0*
	7	*0*		*0*	*0*		*0*
	8	*0*		*0*	*0*		*0*
	9	*0*		*0*	*0*		*0*
	10	*0*		*0*	*0*		*0*
2	1	*197*	*4*	*0*	*1*		*0*
	2	*98*		*0*	*0*		*0*
	3	*0*		*0*	*0*		*0*
	4	*0*		*0*	*0*		*0*
	5	*0*		*0*	*0*		*0*
	6	*0*		*0*	*0*		*0*
	7	*0*		*0*	*0*		*0*
	8	*0*		*0*	*0*		*0*
	9	*0*		*0*	*0*		*0*
	10	*0*		*0*	*0*		*0*
3	1	*197*	*16*	*0*	*1*		*0*
	2	*98*		*0*	*0*		*0*
	3	*0*		*0*	*0*		*0*
	4	*0*		*0*	*0*		*0*
	5	*0*		*0*	*0*		*0*
	6	*0*		*0*	*0*		*0*
	7	*0*		*0*	*0*		*0*
	8	*0*		*0*	*0*		*0*
	9	*0*		*0*	*0*		*0*
	10	*0*		*0*	*0*		*0*
4	1	*197*	*8*	*0*	*1*		*0*
	2	*98*		*0*	*0*		*0*
	3	*0*		*0*	*0*		*0*
	4	*0*		*0*	*0*		*0*
	5	*0*		*0*	*0*		*0*
	6	*0*		*0*	*0*		*0*
	7	*0*		*0*	*0*		*0*
	8	*0*		*0*	*0*		*0*
	9	*0*		*0*	*0*		*0*
	10	*0*		*0*	*0*		*0*
5	1	*0*		*0*	*0*		*0*
	2	*0*		*0*	*0*		*0*
	3	*0*		*0*	*0*		*0*
	4	*0*		*0*	*0*		*0*
	5	*0*		*0*	*0*		*0*
	6	*0*		*0*	*0*		*0*
	7	*0*		*0*	*0*		*0*
	8	*0*		*0*	*0*		*0*
	9	*0*		*0*	*0*		*0*
	10	*0*		*0*	*0*		*0*

Instructions
0 - Service Phases
1-9 = Special Interval 1-9
10 - Preempt Sequence Allows FYLTA
11 - Preempt Interval Disables FYLTA
15 - Alternate Trap Protection
90 - Go to all Red
91 - Soft Flash On
92 - Soft Flash Off
93 - Enable Ped
94 - Disable Peds
95 - Priority Return
96 - Enable Coordination with peds
97 - Enable Coordination without peds
98 - Return with NO Calls
99 - Return with Vehicle Calls
100 - jump to step in Interval Time
101 - Use Interval Time as Resetable Gap Timer
196 - Coord Re-synch with Peds
197 - Coord Re-synch without Peds
200 - Light Rail Train phase without Peds
201 - Light Rail Train phase with Peds
202 - Return to highest queue/delay phase (this uses the Dynamic Phase Length Back Detectors)
216 - Light Rail Train Coord Re-synch with Peds
217 - Light Rail Train Coord Re-synch without Peds

Phases Serviced - phases 1 - 8

Interval Time - 0 - 255 sec or interval 1 - 10

Hold on Input:
0 = Do not hold
1 = Hold
2 = Ped Service to Rest in Walk

Outputs On - output 1 - 8

Output Modes -
0 = all steady on
1 = all flash together
2 = odd flashes WIG, even flashes WAG
3 = 1 - 4 steady on, 5 - 8 all flash together

ATTACHMENT 4

Sequence cont.

Sequences / Intervals		Instruction	Phases Serviced	Interval Time	Hold On Input	Outputs On	Output Mode
6	1	0		0	0		0
	2	0		0	0		0
	3	0		0	0		0
	4	0		0	0		0
	5	0		0	0		0
	6	0		0	0		0
	7	0		0	0		0
	8	0		0	0		0
	9	0		0	0		0
	10	0		0	0		0
7	1	0		0	0		0
	2	0		0	0		0
	3	0		0	0		0
	4	0		0	0		0
	5	0		0	0		0
	6	0		0	0		0
	7	0		0	0		0
	8	0		0	0		0
	9	0		0	0		0
	10	0		0	0		0
8	1	0		0	0		0
	2	0		0	0		0
	3	0		0	0		0
	4	0		0	0		0
	5	0		0	0		0
	6	0		0	0		0
	7	0		0	0		0
	8	0		0	0		0
	9	0		0	0		0
	10	0		0	0		0

Sequence Timing (next/2/5/0)

	Sequence -- >	1	2	3	4	5	6	7	8	
	Input Memory									X = on
	Input Priority	6	6	6	6	0	0	0	0	0 = lowest, - 8 = highest
Entry (Transition) Parameters	Min Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec
	Walk	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0 would time the normal function time
	Ped Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Overlap Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec
	Overlap Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Delay to Preempt	0	0	0	0	0	0	0	0	0 - 255 sec
	Delay Ped Omit	0	0	0	0	0	0	0	0	
	Delay Phase Omit	0	0	0	0	0	0	0	0	
	Min Reservice	0	0	0	0	0	0	0	0	0 - 255 min
Overlap Inhibits	A									X = inhibit
	B									
	C									
	D									
Exit Parameters	Exit to Coord Plan Offset by X	0	0	0	0	0	0	0	0	0 - 20
	Exit Coord Plan Time	0	0	0	0	0	0	0	0	0 - 60 min
	Exit to Max Plan	0	0	0	0	0	0	0	0	0 - 8
	Exit Free Time	0	0	0	0	0	0	0	0	0 - 60 min
	Override Time	0	0	0	0	0	0	0	0	
	Fail Time	0	0	0	0	0	0	0	0	
	Exit Mode Time	0	0	0	0	0	0	0	0	

Priority Return and Special Intervals (next/2/5/0/6, next/2/5/9)													
Phase / Overlap -->		**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**A**	**B**	**C**	**D**	ATTACHMENT 4
Priority Return	**Enable**	*0*	0 = disabled, 1 = enabled, 2 = enabled, skip preemption phases on exit											
	A (max)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 100% of currently used max				
	B (max)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*					
	C (max)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*					
	D (max)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*					
	E (max)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*					
	Ped Clear	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 100% of currently used ped clearance				
Queue Delay Recovery		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 - 255 sec.				
Special Intervals	**1**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 = Dark 1 = green don't walk 2 = green walk 3 = green flashing don't walk 4 = yellow 5 = red 6 = flashing yellow WIG 7 = flashing yellow WAG 8 = flashing red WIG 9 = flashing red WAG 10 = walk only 11=flashing don't walk only
	2	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	3	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	4	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	5	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	6	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	7	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	8	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
	9	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	

Light Rail Train (next/2/5/0/7)					
Light Rail Train -->	**1**	**2**	**3**	**4**	
Associated Preempt	*0*	*0*	*0*	*0*	0 = none, preempt 1 - 8
Time to Green	*0*	*0*	*0*	*0*	0 - 255 sec
Horizontal Bar Flash Time	*0.0*	*0.0*	*0.0*	*0.0*	0.0 - 25.5 sec
Vertical Bar Flash Time	*0.0*	*0.0*	*0.0*	*0.0*	
Min Duration	*0*	*0*	*0*	*0*	0 - 255 sec

Communications Data (next/2/6)

ATTACHMENT 4

1st Central Phone Number		**2nd Central Phone Number**	
Modem Setup String	*AT&F&N6&W*	**Intersection Name**	*Hwy 99w at Brutscher*
Subnet Mask	*255.0.0.0*		
IP (ethernet) Port	*25000*		
Central Port	*6*		
System Mode	*2*		
System Port	*1*	**Alternate System Port**	*0*

System ID	*64*	**AB3418e Physical Address**	*1*		**IP Address**	*10.1.1.1*
Local ID	*13*	**AB3418e Group Address**	*0*		**Gateway Address**	*167.131.62.1*

Baud Rates		**Flow Control**	**Port Use**
Port 1 (Slot A2 Upper)	*2*	*1*	*Suggested Use - FSK*
Port 2 (Slot A2 Lower)	*2*	*0*	*Suggested Use - Not Used*
Port 3 (Slot A1 Upper)	*0*	*1*	*Suggested Use - Modem to Central*
Port 4 (Slot A1 Lower or C50S)	*2*	*N\U*	*Suggested Use - RS232 to Laptop*
0 = 1200, 1 = 2400, 2 = 9600, 3 = 19200 baud		0 = off, 1 = on	

Reports

Volume Log Period	*15*	minutes	**Volume/Occ Log Period**	*0*	second	**MOE Log Period**	*15*	minute

0 = disabled, 1,2,3,4,5,6,10,12,15,20,30,60 minutes

Function Schedule Mapping (next/2/6/7)

Alarm 1	*0*		**Soft Flash**	*1*	
Alarm 2	*0*		**Manual Control Enable (MCE)**	*4*	
Alarm 3	*0*		**Emergency or Railroad Preempt**	*1*	
Alarm 4	*0*		**Not Used**	*0*	
Alarm 5	*0*	0 = none	**Cycle Failure**	*2*	0 = none
Not Used	*0*	1 = schedule A	**Coordination Failure**	*2*	1 = schedule A
Not Used	*0*	2 = schedule B	**Keyboard use / Data Changed**	*3*	2 = schedule B
Not Used	*0*	3 = schedule C	**Coord Running / Free**	*2*	3 = schedule C
Power On / Off	*1*	4 = schedule R	**Cabinet Door**	*3*	4 = schedule R
Checksum Failure	*4*		**Extended Ped Pushbutton**	*0*	
Video / Detector Failure	*4*		**Monitor Status**	*4*	
Master to Local Comm Lost	*0*		**Red Extension**	*0*	

Miscellaneous Data

ATTACHMENT 4

Transit Priority (next/2/7)

	1	2	3	4	5	6	7	8	
Phases									Phases 1 - 8 (max of 2 compatible phases)
PE Enable (6.25Hz TP call on PE)									X = 6.25 Hz signal will activate TP
Priority	0	0	0	0	0	0	0	0	0 - 8, 8 = highest
Memory									X = on
Delay Time	0	0	0	0	0	0	0	0	0 - 255 sec
Minimum Reservice Time (per input)	0	0	0	0	0	0	0	0	0 - 255 min
Override Time	0	0	0	0	0	0	0	0	0 - 255 sec
Bus Extend	0	0	0	0	0	0	0	0	0 - 255 sec
Minimum Reservice Time (all inputs)	0	0 - 255 min							
Free Operation Mode	0	0 = use shortest of max 1 or 2, 1 - 8 = use max time of group 1 - 8, 9 = use time of day							

Transit Priority Alternate Force Off Plans

Current Coord Plan	1	2	3	4	5	6	7	8
Alternate TP Force Off Plan	0	0	0	0	0	0	0	0
Current Coord Plan	9	10	11	12	13	14	15	16
Alternate TP Force Off Plan	0	0	0	0	0	0	0	0

0 = none
17 - 32 = coord plan 17 - 32

Group Timing

	Phase -->	1	2	3	4	5	6	7	8
Group 1	**Max Times**	0	0	0	0	0	0	0	0
	Walk Times	0	0	0	0	0	0	0	0
Group 2	**Max Times**	0	0	0	0	0	0	0	0
	Walk Times	0	0	0	0	0	0	0	0
Group 3	**Max Times**	0	0	0	0	0	0	0	0
	Walk Times	0	0	0	0	0	0	0	0
Group 4	**Max Times**	0	0	0	0	0	0	0	0
	Walk Times	0	0	0	0	0	0	0	0
Group 5	**Max Times**	0	0	0	0	0	0	0	0
	Walk Times	0	0	0	0	0	0	0	0
Group 6	**Max Times**	0	0	0	0	0	0	0	0
	Walk Times	0	0	0	0	0	0	0	0
Group 7	**Max Times**	0	0	0	0	0	0	0	0
	Walk Times	0	0	0	0	0	0	0	0
Group 8	**Max Times**	0	0	0	0	0	0	0	0
	Walk Times	0	0	0	0	0	0	0	0

0 - 255 sec
0 would time the normal function time

Truck Priority (next/2/7/9)

	1	2	3	4	
Truck Priority-->	1	2	3	4	
Associated Transit Priority	0	0	0	0	0 = none 1 - 8 = transit priority 1 - 8
Leading Detector	0	0	0	0	0 = none, 1 - 32 = detector 1 - 32
Trailing Detector	0	0	0	0	
Stop Bar Distance	0	0	0	0	0 - 999 feet
Trap Distance	0	0	0	0	0.0 - 99.9 feet
Minimum Speed	0	0	0	0	0 - 100 mph
Minimum Length	0	0	0	0	0 - 255 feet
Downhill Grade	0	0	0	0	0 - 20 %
Uphill Grade	0	0	0	0	
Undersized Vehicle					X = Enabled

Change I/O		X = On (After a download with a power on - off cycle)

Inputs (Non Default I/O is offset to the right) (next/2/8/1)

C1-39	*101*	*VD9*	**C1-55**	*15*	*VD5*	**C1-67**	*22*	*PED2*	**C11-15**	*254*	*N/U*
C1-40	*113*	*VD19*	**C1-56**	*11*	*VD1*	**C1-68**	*26*	*PED6*	**C11-16**	*254*	*N/U*
C1-41	*106*	*VD14*	**C1-57**	*17*	*VD7*	**C1-69**	*24*	*PED4*	**C11-17**	*254*	*N/U*
C1-42	*118*	*VD24*	**C1-58**	*13*	*VD3*	**C1-70**	*28*	*PED8*	**C11-18**	*254*	*N/U*
C1-43	*102*	*VD10*	**C1-59**	*16*	*VD6*	**C1-71**	*151*	*PE1*	**C11-19**	*254*	*N/U*
C1-44	*114*	*VD20*	**C1-60**	*12*	*VD2*	**C1-72**	*152*	*PE2*	**C11-20**	*254*	*N/U*
C1-45	*107*	*VD15*	**C1-61**	*18*	*VD8*	**C1-73**	*153*	*PE3*	**C11-21**	*254*	*N/U*
C1-46	*161*	*VD25*	**C1-62**	*14*	*VD4*	**C1-74**	*154*	*PE4*	**C11-22**	*254*	*N/U*
C1-47	*105*	*VD13*	**C11-10**	*254*	*N/U*	**C1-75**	*121*	*CLKR*	**C11-23**	*254*	*N/U*
C1-48	*117*	*VD23*	**C11-11**	*254*	*N/U*	**C1-76**	*104*	*VD12*	**C11-24**	*254*	*N/U*
C1-49	*112*	*VD18*	**C11-12**	*254*	*N/U*	**C1-77**	*116*	*VD22*	**C11-25**	*254*	*N/U*
C1-50	*164*	*VD28*	**C11-13**	*254*	*N/U*	**C1-78**	*111*	*VD17*	**C11-26**	*254*	*N/U*
C1-51	*199*	*PEDI*	**C1-63**	*103*	*VD11*	**C1-79**	*163*	*VD27*	**C11-27**	*254*	*N/U*
C1-52	*155*	*PE5*	**C1-64**	*115*	*VD21*	**C1-80**	*82*	*IADV*	**C11-28**	*254*	*N/U*
C1-53	*85*	*MCE*	**C1-65**	*108*	*VD16*	**C1-81**	*137*	*MONS*	**C11-29**	*254*	*N/U*
C1-54	*254*	*N/U*	**C1-66**	*162*	*VD26*	**C1-82**	*62*	*ST1*	**C11-30**	*254*	*N/U*

Outputs (Non Default I/O is offset to the right) (next/2/8/2)

C1-2	*44*	*4DWK*	**C1-19**	*48*	*8DWK*	**C1-35**	*131*	*TO1*	**C1-91**	*41*	*1DWK*
C1-3	*64*	*4WLK*	**C1-20**	*68*	*8WLK*	**C1-36**	*132*	*TO2*	**C1-93**	*61*	*1WLK*
C1-4	*14*	*4RED*	**C1-21**	*18*	*8RED*	**C1-37**	*133*	*TO3*	**C1-94**	*106*	*OLBR*
C1-5	*24*	*4YEL*	**C1-22**	*28*	*8YEL*	**C1-38**	*134*	*TO4*	**C1-95**	*105*	*OLBY*
C1-6	*34*	*4GRN*	**C1-23**	*38*	*8GRN*	**C1-100**	*53*	*3PCL*	**C1-96**	*104*	*OLBG*
C1-7	*13*	*3RED*	**C1-24**	*17*	*7RED*	**C1-101**	*51*	*1PCL*	**C1-97**	*103*	*OLAR*
C1-8	*23*	*3YEL*	**C1-25**	*27*	*7YEL*	**C1-102**	*187*	*SFL*	**C1-98**	*102*	*OLAY*
C1-9	*33*	*3GRN*	**C1-26**	*37*	*7GRN*	**C1-103**	*147*	*WDOG*	**C1-99**	*101*	*OLAG*
C1-10	*42*	*2DWK*	**C1-27**	*46*	*6DWK*	**C1-83**	*43*	*3DWK*	**C11-1**	*254*	*N/U*
C1-11	*62*	*2WLK*	**C1-28**	*66*	*6WLK*	**C1-84**	*63*	*3WLK*	**C11-2**	*254*	*N/U*
C1-12	*12*	*2RED*	**C1-29**	*16*	*6RED*	**C1-85**	*116*	*OLDR*	**C11-3**	*254*	*N/U*
C1-13	*22*	*2YEL*	**C1-30**	*26*	*6YEL*	**C1-86**	*115*	*OLDY*	**C11-4**	*254*	*N/U*
C1-15	*32*	*2GRN*	**C1-31**	*36*	*6GRN*	**C1-87**	*114*	*OLDG*	**C11-5**	*254*	*N/U*
C1-16	*11*	*1RED*	**C1-32**	*15*	*5RED*	**C1-88**	*113*	*OLCR*	**C11-6**	*254*	*N/U*
C1-17	*21*	*1YEL*	**C1-33**	*25*	*5YEL*	**C1-89**	*112*	*OLCY*	**C11-7**	*254*	*N/U*
C1-18	*31*	*1GRN*	**C1-34**	*35*	*5GRN*	**C1-90**	*111*	*OLCG*	**C11-8**	*254*	*N/U*

Internal Logic (next/2/9)			
Step	**Inst.**	**Description**	**Comment** ATTACHMENT 4
1	*201*	Jumper Two Inputs	
2	*101*	Vehicle Detector 9	
3	*165*	Vehicle Detector 29	
4	*201*	Jumper Two Inputs	
5	*102*	Vehicle Detector 10	
6	*165*	Vehicle Detector 29	
7	*201*	Jumper Two Inputs	
8	*106*	Vehicle Detector 14	
9	*166*	Vehicle Detector 30	
10	*201*	Jumper Two Inputs	
11	*107*	Vehicle Detector 15	
12	*166*	Vehicle Detector 30	
13	*201*	Jumper Two Inputs	
14	*113*	Vehicle Detector 19	
15	*167*	Vehicle Detector 31	
16	*201*	Jumper Two Inputs	
17	*114*	Vehicle Detector 20	
18	*167*	Vehicle Detector 31	
19	*201*	Jumper Two Inputs	
20	*118*	Vehicle Detector 24	
21	*168*	Vehicle Detector 32	
22	*201*	Jumper Two Inputs	
23	*161*	Vehicle Detector 25	
24	*168*	Vehicle Detector 32	
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			
51			
52			
53			
54			
55			

Internal Logic cont.			
Step	**Inst.**	**Description**	**Comment** ATTACHMENT 4
56			
57			
58			
59			
60			
61			
62			
63			
64			
65			
66			
67			
68			
69			
70			
71			
72			
73			
74			
75			
76			
77			
78			
79			
80			
81			
82			
83			
84			
85			
86			
87			
88			
89			
90			
91			
92			
93			
94			
95			
96			
97			
98			
99			
100			
101			
102			
103			
104			
105			
106			
107			
108			
109			
110			

Internal Logic cont.			
Step	**Inst.**	**Description**	**Comment** ATTACHMENT 4
111			
112			
113			
114			
115			
116			
117			
118			
119			
120			
121			
122			
123			
124			
125			
126			
127			
128			
129			
130			
131			
132			
133			
134			
135			
136			
137			
138			
139			
140			
141			
142			
143			
144			
145			
146			
147			
148			
149			
150			
151			
152			
153			
154			
155			
156			
157			
158			
159			
160			
161			
162			
163			
164			
165			

Internal Logic cont.			
Step	**Inst.**	**Description**	**Comment** ATTACHMENT 4
166			
167			
168			
169			
170			
171			
172			
173			
174			
175			
176			
177			
178			
179			
180			
181			
182			
183			
184			
185			
186			
187			
188			
189			
190			
191			
192			
193			
194			
195			
196			
197			
198			
199			
200			
201			
202			
203			
204			
205			
206			
207			
208			
209			
210			
211			
212			
213			
214			
215			
216			
217			
218			
219			
220			

Internal Logic cont.			
Step	**Inst.**	**Description**	**Comment** ATTACHMENT 4
221			
222			
223			
224			
225			
226			
227			
228			
229			
230			
231			
232			
233			
234			
235			
236			
237			
238			
239			
240			
241			
242			
243			
244			
245			
246			
247			
248			
249			
250			
251			
252			
253			
254			
255			
256			

FYLTA - Continued (next/2/2/8/6)							
	Phase Pairs -->	**1 - 2**	**3 - 4**	**5 - 6**	**7 - 8**	
Gap-Dependent FYLTA (next/2/2/8/6-A)	**Detector Input**	*0*	*0*	*0*	*0*	0 = disable, 1 - 64 detectors
	Min Delay	*0*	*0*	*0*	*0*	0 - 255 sec
	Detector Gap	*0.0*	*0.0*	*0.0*	*0.0*	0 - 25.5 sec
	Max Delay	*0*	*0*	*0*	*0*	0 - 255 sec
	Not Ped	*0*	*0*	*0*	*0*	0 - 255 sec

FYLTA Gap-Dependent Plans (next/2/2/8/6)						
Phase Pairs -->	**1 - 2**	**3 - 4**	**5 - 6**	**7 - 8**	
FYLTA Gap-Dependent Plan A	**Detector Input**	*0*	*0*	*0*	*0*	0 = disable, 1 - 64 detectors
	Min Delay	*0*	*0*	*0*	*0*	0 - 255 sec
	Detector Gap	*0.0*	*0.0*	*0.0*	*0.0*	0 - 25.5 sec
	Max Delay	*0*	*0*	*0*	*0*	0 - 255 sec
	Not Ped	*0*	*0*	*0*	*0*	0 - 255 sec
FYLTA Gap-Dependent Plan B	**Detector Input**	*0*	*0*	*0*	*0*	0 = disable, 1 - 64 detectors
	Min Delay	*0*	*0*	*0*	*0*	0 - 255 sec
	Detector Gap	*0.0*	*0.0*	*0.0*	*0.0*	0 - 25.5 sec
	Max Delay	*0*	*0*	*0*	*0*	0 - 255 sec
	Not Ped	*0*	*0*	*0*	*0*	0 - 255 sec
FYLTA Gap-Dependent Plan C	**Detector Input**	*0*	*0*	*0*	*0*	0 = disable, 1 - 64 detectors
	Min Delay	*0*	*0*	*0*	*0*	0 - 255 sec
	Detector Gap	*0.0*	*0.0*	*0.0*	*0.0*	0 - 25.5 sec
	Max Delay	*0*	*0*	*0*	*0*	0 - 255 sec

	Not Ped	*0*	*0*	*0*	*0*	0 - 255 sec
FYLTA Gap-Dependent Plan D	**Detector Input**	*0*	*0*	*0*	*0*	0 = disable, 1 - 64 detectors
	Min Delay	*0*	*0*	*0*	*0*	0 - 255 sec
	Detector Gap	*0.0*	*0.0*	*0.0*	*0.0*	0 - 25.5 sec
	Max Delay	*0*	*0*	*0*	*0*	0 - 255 sec
	Not Ped	*0*	*0*	*0*	*0*	0 - 255 sec

Preemption - Continued

Railroad Communications (IEEE 1570) (next/2/5/0/8)

	ATC	**Wayside**	
Railroad Number	*0*	*0*	0 - 999, represents railroad
Railroad Line Number	*0*	*0*	0 - 999, represents railroad line
Group Number	*0*	*0*	0 - 999, represents physical group of equipment
Subnode Number	*0*	*0*	0 - 99, subnode within physical group of equipment
Device Number	*0*	*0*	0 - 99, device within physical group of equipment
Associated Preempt	*0*		0 - 8
Communication Port	*0*		0 - 4

Reports - Continued

Reports - Service Delay Modes (next/2/6/0)

Phase -->	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
Mode	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 = disable, 1 = enable, 2 = Ped, 3 = Veh/P

Ped Overlap -->	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	
Mode	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0 = disable, 1 = enable

Detector -->	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Enable	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Detector -->	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**
Enable	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Detector -->	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**
Enable	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Detector -->	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**
Enable	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*

LEGEND

- (C / 332) INSTALL MODEL 170 CONTROLLER IN MODEL 332 CABINET WITH RISER FRAME. ORIENT FRONT (LOUVERED) DOOR AS SHOWN. CONSTRUCT FOUNDATION AS PER STANDARD DWG. NO. TM423.
- (MPL / X) INSTALL SPECIAL HEAVY–DUTY (NON–STANDARD) TRAFFIC SIGNAL MAST ARM POLE WITH LUMINAIRE POLE EXTENSION (35 FT. MOUNTING HEIGHT). SEE SPECIFICATIONS.
- (MA / L) INSTALL (L) FT. TRAFFIC SIGNAL MAST ARM.
- (LA / L) INSTALL (L) FT. LUMINAIRE ARM.
- (V / PH) INSTALL PHASE (PH) VEHICLE SIGNAL WITH LEDS.
- (P/B / PH) INSTALL PHASE (PH) PEDESTRIAN SIGNAL WITH LEDS, PUSHBUTTON, AND INSTRUCTION SIGN.
- (TC) INSTALL TERMINAL CABINET.
- (SNS / #) INSTALL ALUMINUM STREET NAME SIGN ON MAST ARM (SEE SPECIAL PROVISIONS).
- (JB / 1) INSTALL 17"x10"x12" (MIN. DIMENSION) PRECAST CONCRETE JUNCTION BOX.
- (JB / 3) INSTALL 30"x17"x12" (MIN. DIMENSION) PRECAST CONCRETE JUNCTION BOX.
- (FN / CH) INSTALL CHANNEL (CH), (N) BARREL EMERGENCY VEHICLE PRE–EMPTION DETECTOR UNIT.
- (FF / CH) INSTALL CHANNEL (CH) EMERGENCY VEHICLE PRE–EMPTION DETECTOR FEEDER CABLE.
- (PE / 1) INSTALL PHOTOCONTROL ELECTRONIC RELAY CELL ON POLE (18' TO 30' ABOVE POLE BASE ON NORTH SIDE).
- (HPS) INSTALL COBRAHEAD STYLE LUMINAIRE, 250 WATT HIGH PRESSURE SODIUM, MULTI–TAP BALLAST SET AT 240 VOLTS, 35' MOUNTING HEIGHT. LUMINAIRE SHALL BE GE MSCL25S3N22FMC3 OR APPROVED EQUAL.
- (EX / 1) RETAIN AND PROTECT EXISTING POWER VAULT (POWER SOURCE).
- (PSP) INSTALL PEDESTRIAN SIGNAL PEDESTAL.
- (TEL) INSTALL 2 INCH CONDUIT STUB IN CONTROLLER FOR CONNECTION BY TELEPHONE COMPANY AS DIRECTED BY VERIZON (CONTACT 503–620–9354). PHONE LINE MUST BE OPERATIONAL PRIOR TO SIGNAL TURN–ON.
- (S) INSTALL (S) INCH ELECTRICAL CONDUIT. CONDUIT LOCATION SHOWN AS APPROXIMATE ONLY. FINAL LOCATION TO BE DETERMINED IN FIELD AND APPROVED BY ENGINEER.
- (DC) DETECTOR CONDUIT (REFER TO DETECTOR PLAN).
- (X–N / G) INSTALL (X) CONTROL CABLES (IMSA SPEC. 19–1) WITH (N) AWG NO. (G) CONDUCTORS.
- (RPS) INSTALL REMOTE POWER SERVICE POST.
- (SCL / 2) SERVICE CABINET, 120/240 VOLT, FOR BOTH SIGNAL AND ILLUMINATION CIRCUITS.
- (MS / 2) INSTALL 120/240 VOLT METER BASE.
- ⚠1 (AL / 5L) INSTALL ALUMINUM (30"X36", TYPE W7) LEFT ARROW "ONLY" SIGN
- (AL / 5R) INSTALL ALUMINUM (30"X36", TYPE W7) RIGHT ARROW "RIGHT" SIGN

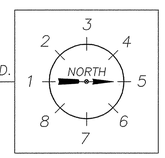
- [N–C] INSTALL (N) NO. 8 TYPE XHHW OR THWN WIRE (SIGNAL SYSTEM COMMON).
- [N / G] INSTALL (N) NO. (G) TYPE XHHW OR THWN WIRE.
- [N–G] INSTALL (N) NO. (G) STRANDED BARE COPPER WIRE (GROUND).
- [PL] INSTALL POLY PULL LINE (210# MIN. STRENGTH).

N = NUMBER SHOWN
X = NUMBER OF CABLES SHOWN
PH = PHASE SHOWN
L = LENGTH SHOWN
CH = CHANNEL SHOWN
S = SIZE SHOWN
G = AWG SIZE SHOWN
T = TYPE SHOWN
A = STANDARD PLUMBIZER
TB = TENON MOUNT ADJUSTABLE SIGNAL BRACKET, PELCO #AB 3028–SS.
P = TYPE P–1 SIGNAL POLE SIDE MOUNT
2 = 12" RED, 12" YELLOW, 12" GREEN.
3R = 12" RED RTA, 12" YELLOW RTA, 12" GREEN RTA
4L = 12" RED LTA, 12" YELLOW LTA, 12" GREEN LTA

POLE ENTRANCE CHART

POLE NO.	1	2	3	4
LUMINAIRE ARM	–	7	1	3
MAST ARM	–	7	1	3
TERMINAL CABINET	–	3	5	7
PED SIGNAL CLAM SHELL	1/7	1	5	5/7
PED PUSHBUTTON	~~3/5~~ ⚠ 5/7	~~5~~ 7	~~1~~ 7	~~1/3~~ 1/7

SPRINGBROOK RD.



GENERAL NOTES

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE OREGON DEPARTMENT OF TRANSPORTATION (TRAFFIC ENGINEERING SECTION) STANDARD DRAWINGS, THE OREGON DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, THE CITY OF NEWBERG STANDARD CONSTRUCTION SPECIFICATIONS, AND THE SPECIAL PROVISIONS FOR THIS CONTRACT.
2. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF THE EXISTING UTILITIES AND COORDINATE WORK WITH THE UTILITY COMPANIES/AGENCIES TO ELIMINATE ANY CONFLICTS.
3. THE CONTRACTOR SHALL COORDINATE WORK WITH PGE FOR POWER SERVICE CONNECTION. THE CONTRACTOR SHALL INSTALL CONDUIT AND WIRING TO POWER SOURCE AS REQUIRED BY PGE.
4. LOCATIONS OF ALL POLES, CONDUITS, SIGNAL HEADS, AND JUNCTION BOXES (AS SHOWN ON PLANS) ARE APPROXIMATE. ACTUAL LOCATIONS SHALL BE DESIGNATED IN THE FIELD BY THE ENGINEER. CONDUIT SHALL BE PLACED IN THE SAME TRENCH WITH OTHER CONDUITS WHENEVER POSSIBLE.
5. NEW SIGNAL POLE FOUNDATIONS SHALL BE GRADED TO MATCH ELEVATION OF BACK OF SIDEWALK.
6. IN CASES WHERE EXISTING SIDEWALK IS DISTURBED FOR SIGNAL CONSTRUCTION, SIDEWALK SHALL BE REBUILT TO CITY STANDARDS AT CONTRACTORS EXPENSE.

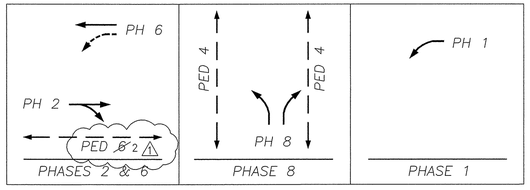
STREET NAME SIGNS

(SNS / 1) HAYES ST

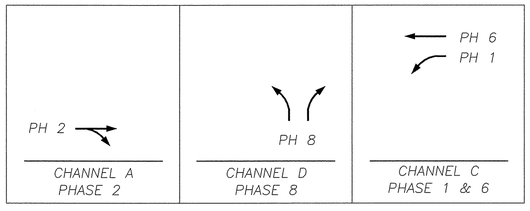
(SNS / 2) SPRINGBROOK RD

SIGNAL PHASING

NORMAL PHASE ROTATION



FIRE PRE–EMPTION OPERATION



RECEIVED
NOV 17 2006
BY:

11-14-06
REGISTERED PROFESSIONAL ENGINEER 9301 OREGON JULY 22, 1977 FRANK R. CHARBONNEAU
EXPIRES: 12/31/07

A2006017A

AS-BUILT DRAWING
DATE PLOTTED: Nov 14, 2006 - 2:55pm

REVISIONS	
⚠1 8/16/06	REVISED AS CONSTRUCTED
⚠2 11/14/06	REVISED AS CONSTRUCTED

ALPHA ENGINEERING INC.
PLANNING ▲ DEVELOPMENT SERVICES ▲ SURVEYING
OFFICE 503–452–8003 ▲ FAX 503–452–8043
PLAZA WEST ▲ SUITE 230 ▲ 9600 SW OAK ▲ PORTLAND,OR 97223

CHARBONNEAU ENGINEERING LLC
9370 SW Greenburg Road, Suite 411
Portland, OR 97223
(503) 293-1118
FAX (503) 293-1119
344/690

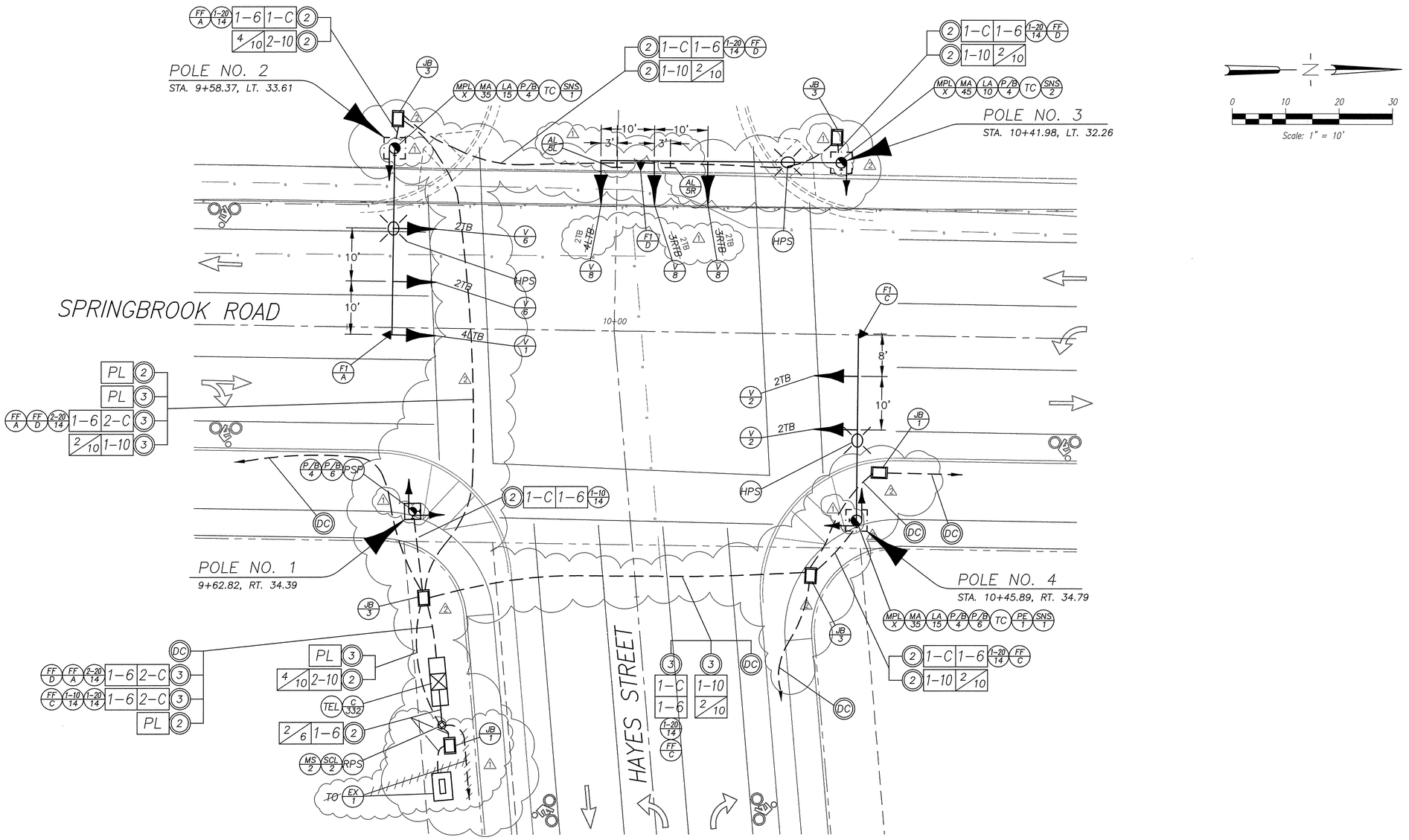
Date	03/30/04
Scale	N.T.S.
Designed By	FRC
Drawn By	AJR/MEK
Checked By	FRC

TRAFFIC SIGNAL INSTALLATION PLANS
SPRINGBROOK RD AT HAYES ST.
SIGNAL LEGEND AND DETAILS
CITY OF NEWBERG OREGON

Job Number 03-49
Sheet 1 of 3

DATE PLOTTED: Nov 14, 2006 - 2:55pm CE DRAWING FILE: C:\Drawings 2006\Charbonneau\03-49 Hayes St at Springbrook Rd\03499legend.dwg

ATTACHMENT 4



11-14-06

REGISTERED PROFESSIONAL ENGINEER 9301 OREGON JULY 22, 1977 FRANK R. CHARBONNEAU

EXPIRES: 12/31/07

AS-BUILT DRAWING

DATE PLOTTED: Nov 14, 2006 - 2:44pm

A20060817B

REVISIONS		
1	8/16/06	REVISED AS CONSTRUCTED
2	11/14/06	REVISED AS CONSTRUCTED

ALPHA ENGINEERING INC.
PLANNING ▲ DEVELOPMENT SERVICES ▲ SURVEYING
OFFICE 503-452-8003 ▲ FAX 503-452-8043
PLAZA WEST ▲ SUITE 230 ▲ 9600 SW OAK ▲ PORTLAND,OR 97223

CHARBONNEAU ENGINEERING LLC
9370 SW Greenburg Road, Suite 411
Portland, OR 97223
(503) 293-1118
FAX (503) 293-1119
345/690

Date	03/30/04
Scale	AS SHOWN
Designed By	FRC
Drawn By	RFD, JRC
Checked By	FRC

TRAFFIC SIGNAL INSTALLATION PLANS

SPRINGBROOK ROAD AT HAYES STREET

SIGNAL PLAN

CITY OF NEWBERG OREGON

Job Number 03-49

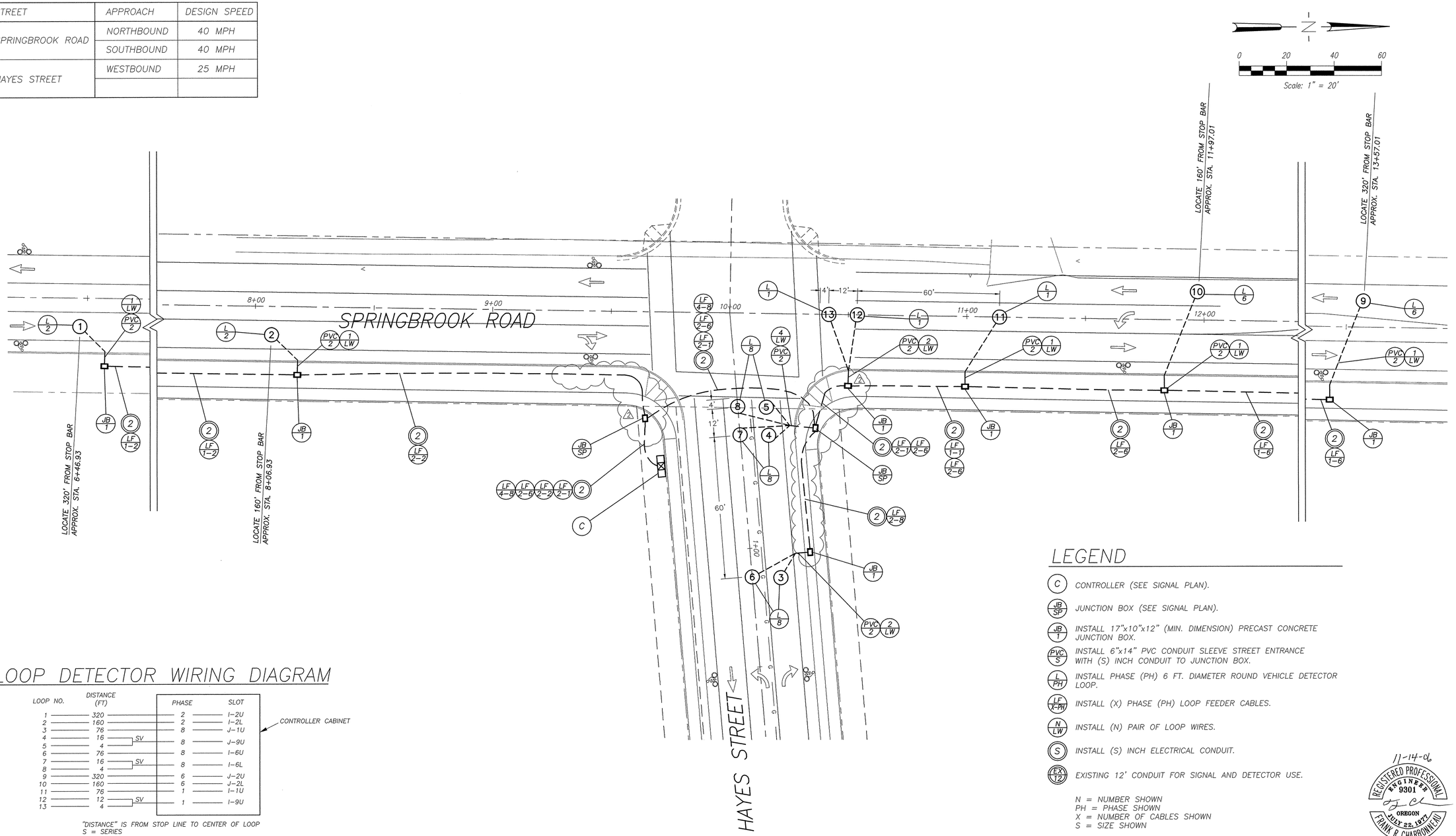
Sheet 2 of 3

DATE PLOTTED: Nov 14, 2006 - 2:44pm CE DRAWING FILE: C:\Drawings 2006\Charbonneau\03-49 Hayes St at Springbrook Rd\03-49signal.dwg

ATTACHMENT 4

DESIGN APPROACH SPEEDS

STREET	APPROACH	DESIGN SPEED
SPRINGBROOK ROAD	NORTHBOUND	40 MPH
	SOUTHBOUND	40 MPH
HAYES STREET	WESTBOUND	25 MPH



LOOP DETECTOR WIRING DIAGRAM

"DISTANCE" IS FROM STOP LINE TO CENTER OF LOOP
S = SERIES

LEGEND

- (C) CONTROLLER (SEE SIGNAL PLAN).
- (JB / SP) JUNCTION BOX (SEE SIGNAL PLAN).
- (JB / 1) INSTALL 17"x10"x12" (MIN. DIMENSION) PRECAST CONCRETE JUNCTION BOX.
- (PVC / S) INSTALL 6"x14" PVC CONDUIT SLEEVE STREET ENTRANCE WITH (S) INCH CONDUIT TO JUNCTION BOX.
- (L / PH) INSTALL PHASE (PH) 6 FT. DIAMETER ROUND VEHICLE DETECTOR LOOP.
- (LF / X-PH) INSTALL (X) PHASE (PH) LOOP FEEDER CABLES.
- (N / LW) INSTALL (N) PAIR OF LOOP WIRES.
- (S) INSTALL (S) INCH ELECTRICAL CONDUIT.
- (EX / 12) EXISTING 12' CONDUIT FOR SIGNAL AND DETECTOR USE.

N = NUMBER SHOWN
PH = PHASE SHOWN
X = NUMBER OF CABLES SHOWN
S = SIZE SHOWN

AS-BUILT DRAWING
DATE PLOTTED: Nov 14, 2006 – 2:49pm

A20060MC

11-14-06
REGISTERED PROFESSIONAL ENGINEER 9301 OREGON JULY 22, 1977 FRANK R. CHARBONNEAU
EXPIRES: 12/31/07

REVISIONS		
1	8/16/06	REVISED AS CONSTRUCTED
2	11/14/06	REVISED AS CONSTRUCTED

ALPHA ENGINEERING INC.
PLANNING ▲ DEVELOPMENT SERVICES ▲ SURVEYING
OFFICE 503-452-8003 ▲ FAX 503-452-8043
PLAZA WEST ▲ SUITE 230 ▲ 9600 SW OAK ▲ PORTLAND,OR 97223

CHARBONNEAU ENGINEERING LLC
9370 SW Greenburg Road, Suite 411
Portland, OR 97223
(503) 293-1118
FAX (503) 293-1119
346/690

Date	03/30/04
Scale	AS SHOWN
Designed By	FRC
Drawn By	RFD
Checked By	FRC

TRAFFIC SIGNAL INSTALLATION PLANS
SPRINGBROOK ROAD AT HAYES STREET
DETECTOR PLAN
CITY OF NEWBERG OREGON

Job Number 03-49
Sheet 3 of 3

DATE PLOTTED: Nov 14, 2006 – 2:49pm CE DRAWING FILE: C:\Drawings 2006\Charbonneau\03-49 Hayes St at Springbrook Rd\03549detector.dwg

APPENDIX H

SYNCRHO HCM 2000 REPORTS

HCM Signalized Intersection Capacity Analysis
1: Springbrook Road & Highway 99W

11/21/2014

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (vph)	4	97	1095	61	11	144	1475	273	346	198	143	346
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.5	5.5		5.0	5.5	5.5	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00	0.95	1.00		1.00	0.95	1.00	0.97	1.00	1.00	0.97
Frpb, ped/bikes		1.00	1.00	0.98		1.00	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)		1787	3406	1438		1719	3505	1519	3433	1863	1455	3433
Flt Permitted		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (perm)		1787	3406	1438		1719	3505	1519	3433	1863	1455	3433
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	4	99	1117	62	11	147	1505	279	353	202	146	353
RTOR Reduction (vph)	0	0	0	35	0	0	0	113	0	0	128	0
Lane Group Flow (vph)	0	103	1117	27	0	158	1505	166	353	202	18	353
Confl. Peds. (#/hr)								1				
Confl. Bikes (#/hr)				1								
Heavy Vehicles (%)	1%	1%	6%	10%	5%	5%	3%	4%	2%	2%	11%	2%
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases	5	5	2		1	1	6		3	8		7
Permitted Phases				2				6			8	
Actuated Green, G (s)		11.4	52.5	52.5		19.0	60.1	60.1	16.5	15.0	15.0	15.0
Effective Green, g (s)		10.9	52.0	52.0		18.5	59.6	59.6	16.0	14.5	14.5	14.5
Actuated g/C Ratio		0.09	0.43	0.43		0.15	0.50	0.50	0.13	0.12	0.12	0.12
Clearance Time (s)		4.5	5.0	5.0		4.5	5.0	5.0	4.5	4.5	4.5	4.5
Vehicle Extension (s)		2.3	4.2	4.2		2.5	4.2	4.2	2.3	2.3	2.3	2.3
Lane Grp Cap (vph)		162	1475	623		265	1740	754	457	225	175	414
v/s Ratio Prot		0.06	c0.33			0.09	c0.43		c0.10	c0.11		0.10
v/s Ratio Perm				0.02				0.11			0.01	
v/c Ratio		0.64	0.76	0.04		0.60	0.86	0.22	0.77	0.90	0.10	0.85
Uniform Delay, d1		52.6	28.7	19.6		47.3	26.6	17.1	50.2	52.0	46.9	51.7
Progression Factor		1.00	1.00	1.00		0.88	0.79	0.54	1.00	1.00	1.00	1.00
Incremental Delay, d2		6.5	3.7	0.1		2.0	4.2	0.5	7.5	33.2	0.1	15.2
Delay (s)		59.2	32.4	19.8		43.6	25.4	9.6	57.7	85.2	47.1	66.9
Level of Service		E	C	B		D	C	A	E	F	D	E
Approach Delay (s)			33.9				24.6			63.4		
Approach LOS			C				C			E		

Intersection Summary			
HCM 2000 Control Delay	38.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	85.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
1: Springbrook Road & Highway 99W

11/21/2014

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	143	114
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.0	5.0
Lane Util. Factor	1.00	1.00
Frpb, ped/bikes	1.00	0.98
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1727	1515
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1727	1515
Peak-hour factor, PHF	0.98	0.98
Adj. Flow (vph)	146	116
RTOR Reduction (vph)	0	103
Lane Group Flow (vph)	146	13
Confl. Peds. (#/hr)		9
Confl. Bikes (#/hr)		1
Heavy Vehicles (%)	10%	4%
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Actuated Green, G (s)	13.5	13.5
Effective Green, g (s)	13.0	13.0
Actuated g/C Ratio	0.11	0.11
Clearance Time (s)	4.5	4.5
Vehicle Extension (s)	2.3	2.3
Lane Grp Cap (vph)	187	164
v/s Ratio Prot	0.08	
v/s Ratio Perm		0.01
v/c Ratio	0.78	0.08
Uniform Delay, d1	52.1	48.1
Progression Factor	1.00	1.00
Incremental Delay, d2	17.9	0.1
Delay (s)	70.0	48.2
Level of Service	E	D
Approach Delay (s)	64.1	
Approach LOS	E	

Intersection Summary

HCM Unsignalized Intersection Capacity Analysis
2: FM Right-In Driveway & Highway 99W

11/21/2014

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1394	218	0	1930	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	1437	225	0	1990	0	0
Pedestrians					1	
Lane Width (ft)					0.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	478			898		
pX, platoon unblocked			0.74		0.86	0.74
vC, conflicting volume			1438		2101	720
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			876		174	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			573		695	797

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3
Volume Total	719	719	225	663	663	663
Volume Left	0	0	0	0	0	0
Volume Right	0	0	225	0	0	0
cSH	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.42	0.42	0.13	0.39	0.39	0.39
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS						
Approach Delay (s)	0.0			0.0		
Approach LOS						

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	42.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: FM RIRO Driveway & Highway 99W

11/21/2014

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1247	138	0	1919	0	23
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	1286	142	0	1978	0	24
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	885			491		
pX, platoon unblocked			0.76		0.77	0.76
vC, conflicting volume			1287		2276	644
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			757		674	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	97
cM capacity (veh/h)			659		301	833

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	643	643	142	989	989	24
Volume Left	0	0	0	0	0	0
Volume Right	0	0	142	0	0	24
cSH	1700	1700	1700	1700	1700	833
Volume to Capacity	0.38	0.38	0.08	0.58	0.58	0.03
Queue Length 95th (ft)	0	0	0	0	0	2
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.5
Lane LOS						A
Approach Delay (s)	0.0			0.0		9.5
Approach LOS						A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
4: Brutscher Street & Highway 99W

11/21/2014

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	6	20	1177	74	232	1621	41	211	13	111	14	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.5	5.5	5.0	5.5	5.5	5.0	5.0		5.0	5.0
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes		1.00	1.00	0.98	1.00	1.00	0.98	1.00	0.99		1.00	0.99
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.87		1.00	0.88
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00
Satd. Flow (prot)		1805	3406	1462	1752	3471	1582	1752	1543		1805	1587
Flt Permitted		0.95	1.00	1.00	0.95	1.00	1.00	0.71	1.00		0.59	1.00
Satd. Flow (perm)		1805	3406	1462	1752	3471	1582	1311	1543		1126	1587
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	6	21	1226	77	242	1689	43	220	14	116	15	16
RTOR Reduction (vph)	0	0	0	31	0	0	15	0	95	0	0	45
Lane Group Flow (vph)	0	27	1226	46	242	1689	28	220	35	0	15	26
Confl. Peds. (#/hr)				1						1		
Confl. Bikes (#/hr)							1			1		
Heavy Vehicles (%)	0%	0%	6%	8%	3%	4%	0%	3%	8%	5%	0%	7%
Turn Type	Prot	Prot	NA	Perm	Prot	NA	Perm	Perm	NA		Perm	NA
Protected Phases	5	5	2		1	6			8			4
Permitted Phases				2			6	8			4	
Actuated Green, G (s)		4.6	65.6	65.6	18.0	79.0	79.0	22.4	22.4		22.4	22.4
Effective Green, g (s)		4.1	65.1	65.1	17.5	78.5	78.5	21.9	21.9		21.9	21.9
Actuated g/C Ratio		0.03	0.54	0.54	0.15	0.65	0.65	0.18	0.18		0.18	0.18
Clearance Time (s)		4.5	5.0	5.0	4.5	5.0	5.0	4.5	4.5		4.5	4.5
Vehicle Extension (s)		2.3	4.8	4.8	2.3	4.8	4.8	2.5	2.5		2.5	2.5
Lane Grp Cap (vph)		61	1847	793	255	2270	1034	239	281		205	289
v/s Ratio Prot		0.01	0.36		c0.14	c0.49			0.02			0.02
v/s Ratio Perm				0.03			0.02	c0.17			0.01	
v/c Ratio		0.44	0.66	0.06	0.95	0.74	0.03	0.92	0.13		0.07	0.09
Uniform Delay, d1		56.8	19.6	13.0	50.8	14.0	7.3	48.2	41.0		40.6	40.8
Progression Factor		0.81	1.06	1.87	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2		2.2	1.4	0.1	41.8	2.3	0.0	37.3	0.1		0.1	0.1
Delay (s)		48.2	22.2	24.4	92.6	16.2	7.4	85.4	41.2		40.8	40.9
Level of Service		D	C	C	F	B	A	F	D		D	D
Approach Delay (s)			22.8			25.4			69.0			40.8
Approach LOS			C			C			E			D

Intersection Summary			
HCM 2000 Control Delay	28.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	79.7%	ICU Level of Service	D
Analysis Period (min)	15		

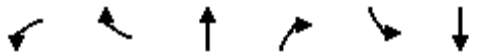
c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	53
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.96
Adj. Flow (vph)	55
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	2
Confl. Bikes (#/hr)	
Heavy Vehicles (%)	4%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

HCM Unsignalized Intersection Capacity Analysis
5: Springbrook Road & FM Main Drive Aisle

11/21/2014



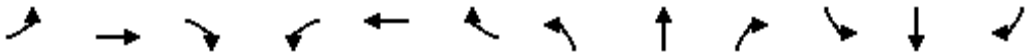
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	351	335	113	0	353
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	373	356	120	0	376
Pedestrians			1			1
Lane Width (ft)			12.0			12.0
Walking Speed (ft/s)			4.0			4.0
Percent Blockage			0			0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			717			401
pX, platoon unblocked	0.96	0.93			0.93	
vC, conflicting volume	793	417			356	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	591	331			265	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	43			100	
cM capacity (veh/h)	454	660			1214	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	373	477	376
Volume Left	0	0	0
Volume Right	373	120	0
cSH	660	1700	1700
Volume to Capacity	0.57	0.28	0.22
Queue Length 95th (ft)	89	0	0
Control Delay (s)	17.3	0.0	0.0
Lane LOS	C		
Approach Delay (s)	17.3	0.0	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	5.3		
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: FM Fuel/US Bank & FM Main Drive Aisle

11/21/2014



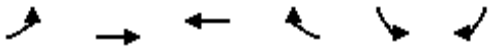
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	20	62	44	151	159	65	137	5	48	15	5	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	22	67	48	164	173	71	149	5	52	16	5	27

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total (vph)	22	115	408	207	49
Volume Left (vph)	22	0	164	149	16
Volume Right (vph)	0	48	71	52	27
Hadj (s)	0.50	-0.27	0.01	0.03	-0.19
Departure Headway (s)	6.2	5.4	4.9	5.4	5.5
Degree Utilization, x	0.04	0.17	0.56	0.31	0.07
Capacity (veh/h)	539	619	702	608	572
Control Delay (s)	8.2	8.3	14.1	10.8	8.9
Approach Delay (s)	8.3		14.1	10.8	8.9
Approach LOS	A		B	B	A

Intersection Summary				
Delay	11.9			
Level of Service	B			
Intersection Capacity Utilization	52.4%	ICU Level of Service	A	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
7: FM Main Drive Aisle & FM Right-In Driveway

11/21/2014



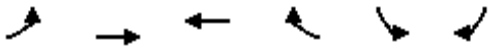
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	0	132	250	0	105	113
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	147	278	0	117	126

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total (vph)	147	278	117	126
Volume Left (vph)	0	0	117	0
Volume Right (vph)	0	0	0	126
Hadj (s)	0.03	0.02	0.50	-0.63
Departure Headway (s)	4.9	4.7	6.0	4.9
Degree Utilization, x	0.20	0.37	0.20	0.17
Capacity (veh/h)	687	725	564	687
Control Delay (s)	9.2	10.5	9.3	7.7
Approach Delay (s)	9.2	10.5	8.5	
Approach LOS	A	B	A	

Intersection Summary			
Delay	9.4		
Level of Service	A		
Intersection Capacity Utilization	30.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
8: FM Main Drive Aisle & FM RIRO Driveway

11/21/2014



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	18	122	148	5	42	96
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	20	139	168	6	48	109

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total (vph)	159	174	157
Volume Left (vph)	20	0	48
Volume Right (vph)	0	6	109
Hadj (s)	0.04	0.01	-0.34
Departure Headway (s)	4.5	4.5	4.3
Degree Utilization, x	0.20	0.22	0.19
Capacity (veh/h)	767	768	778
Control Delay (s)	8.6	8.7	8.3
Approach Delay (s)	8.6	8.7	8.3
Approach LOS	A	A	A

Intersection Summary			
Delay	8.5		
Level of Service	A		
Intersection Capacity Utilization	39.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
9: Brutscher Street & FM Main Drive Aisle/Columbia Bank

11/21/2014

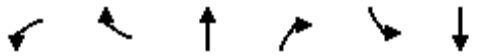
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	187	4	47	8	14	27	14	116	8	38	129	152
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	203	4	51	9	15	29	15	126	9	41	140	165
Pedestrians		1			1							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		4.0			4.0							
Percent Blockage		0			0							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											342	
pX, platoon unblocked												
vC, conflicting volume	500	473	224	521	551	131	306			136		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	500	473	224	521	551	131	306			136		
tC, single (s)	7.1	6.5	6.2	7.3	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.7	4.0	3.3	2.2			2.2		
p0 queue free %	54	99	94	98	96	97	99			97		
cM capacity (veh/h)	438	472	815	389	426	923	1265			1441		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	259	53	15	135	347
Volume Left	203	9	15	0	41
Volume Right	51	29	0	9	165
cSH	483	593	1265	1700	1441
Volume to Capacity	0.54	0.09	0.01	0.08	0.03
Queue Length 95th (ft)	78	7	1	0	2
Control Delay (s)	20.7	11.7	7.9	0.0	1.1
Lane LOS	C	B	A		A
Approach Delay (s)	20.7	11.7	0.8		1.1
Approach LOS	C	B			

Intersection Summary				
Average Delay	8.0			
Intersection Capacity Utilization	56.4%	ICU Level of Service		B
Analysis Period (min)	15			

HCM Signalized Intersection Capacity Analysis
12: Springbrook Road & Hayes Street

11/21/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	88	81	353	38	69	265
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.97	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1679	1557	1770		1703	1759
Flt Permitted	0.95	1.00	1.00		0.42	1.00
Satd. Flow (perm)	1679	1557	1770		761	1759
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	92	84	368	40	72	276
RTOR Reduction (vph)	0	74	5	0	0	0
Lane Group Flow (vph)	92	10	403	0	72	276
Confl. Peds. (#/hr)	3	4				
Confl. Bikes (#/hr)				1		
Heavy Vehicles (%)	7%	1%	6%	3%	6%	8%
Turn Type	Perm	Perm	NA		pm+pt	NA
Protected Phases			2		1	6
Permitted Phases	8	8			6	
Actuated Green, G (s)	6.9	6.9	32.3		40.1	40.1
Effective Green, g (s)	6.4	6.4	31.8		39.6	39.6
Actuated g/C Ratio	0.12	0.12	0.58		0.72	0.72
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	2.5	2.5	2.5		2.5	2.5
Lane Grp Cap (vph)	195	181	1023		604	1266
v/s Ratio Prot			c0.23		0.01	c0.16
v/s Ratio Perm	c0.05	0.01			0.08	
v/c Ratio	0.47	0.05	0.39		0.12	0.22
Uniform Delay, d1	22.7	21.6	6.3		2.7	2.6
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	1.3	0.1	1.1		0.1	0.4
Delay (s)	24.0	21.7	7.5		2.8	3.0
Level of Service	C	C	A		A	A
Approach Delay (s)	22.9		7.5			2.9
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay	8.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	42.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
1: Springbrook Road & Highway 99W

11/21/2014

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (vph)	4	99	1117	66	11	147	1505	278	357	204	146	353
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.5	5.5		5.0	5.5	5.5	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00	0.95	1.00		1.00	0.95	1.00	0.97	1.00	1.00	0.97
Frpb, ped/bikes		1.00	1.00	0.98		1.00	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)		1787	3406	1438		1719	3505	1519	3433	1863	1455	3433
Flt Permitted		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (perm)		1787	3406	1438		1719	3505	1519	3433	1863	1455	3433
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	4	101	1140	67	11	150	1536	284	364	208	149	360
RTOR Reduction (vph)	0	0	0	38	0	0	0	113	0	0	131	0
Lane Group Flow (vph)	0	105	1140	29	0	161	1536	171	364	208	18	360
Confl. Peds. (#/hr)								1				
Confl. Bikes (#/hr)				1								
Heavy Vehicles (%)	1%	1%	6%	10%	5%	5%	3%	4%	2%	2%	11%	2%
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases	5	5	2		1	1	6		3	8		7
Permitted Phases				2				6			8	
Actuated Green, G (s)		11.5	53.0	53.0		18.4	59.9	59.9	16.1	15.1	15.1	15.0
Effective Green, g (s)		11.0	52.5	52.5		17.9	59.4	59.4	15.6	14.6	14.6	14.5
Actuated g/C Ratio		0.09	0.44	0.44		0.15	0.49	0.49	0.13	0.12	0.12	0.12
Clearance Time (s)		4.5	5.0	5.0		4.5	5.0	5.0	4.5	4.5	4.5	4.5
Vehicle Extension (s)		2.3	4.2	4.2		2.5	4.2	4.2	2.3	2.3	2.3	2.3
Lane Grp Cap (vph)		163	1490	629		256	1734	751	446	226	177	414
v/s Ratio Prot		0.06	c0.33			0.09	c0.44		c0.11	c0.11		0.10
v/s Ratio Perm				0.02				0.11			0.01	
v/c Ratio		0.64	0.77	0.05		0.63	0.89	0.23	0.82	0.92	0.10	0.87
Uniform Delay, d1		52.6	28.5	19.4		47.9	27.3	17.2	50.8	52.1	46.9	51.8
Progression Factor		1.00	1.00	1.00		0.87	0.79	0.51	1.00	1.00	1.00	1.00
Incremental Delay, d2		7.0	3.8	0.1		2.8	4.9	0.5	10.6	38.4	0.1	17.1
Delay (s)		59.7	32.3	19.5		44.6	26.3	9.3	61.4	90.6	47.0	68.9
Level of Service		E	C	B		D	C	A	E	F	D	E
Approach Delay (s)			33.9				25.4			66.9		
Approach LOS			C				C			E		

Intersection Summary			
HCM 2000 Control Delay	39.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	87.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
1: Springbrook Road & Highway 99W

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	156	116
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.0	5.0
Lane Util. Factor	1.00	1.00
Frpb, ped/bikes	1.00	0.98
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1727	1515
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1727	1515
Peak-hour factor, PHF	0.98	0.98
Adj. Flow (vph)	159	118
RTOR Reduction (vph)	0	105
Lane Group Flow (vph)	159	13
Confl. Peds. (#/hr)		9
Confl. Bikes (#/hr)		1
Heavy Vehicles (%)	10%	4%
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Actuated Green, G (s)	14.0	14.0
Effective Green, g (s)	13.5	13.5
Actuated g/C Ratio	0.11	0.11
Clearance Time (s)	4.5	4.5
Vehicle Extension (s)	2.3	2.3
Lane Grp Cap (vph)	194	170
v/s Ratio Prot	0.09	
v/s Ratio Perm		0.01
v/c Ratio	0.82	0.08
Uniform Delay, d1	52.1	47.7
Progression Factor	1.00	1.00
Incremental Delay, d2	22.2	0.1
Delay (s)	74.2	47.8
Level of Service	E	D
Approach Delay (s)	66.3	
Approach LOS	E	

Intersection Summary

HCM Unsignalized Intersection Capacity Analysis
2: FM Right-In Driveway & Highway 99W

11/21/2014

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1422	218	0	1969	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	1466	225	0	2030	0	0
Pedestrians					1	
Lane Width (ft)					0.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	478			898		
pX, platoon unblocked			0.73		0.86	0.73
vC, conflicting volume			1467		2144	734
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			895		122	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			558		748	790

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3
Volume Total	733	733	225	677	677	677
Volume Left	0	0	0	0	0	0
Volume Right	0	0	225	0	0	0
cSH	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.43	0.43	0.13	0.40	0.40	0.40
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS						
Approach Delay (s)	0.0			0.0		
Approach LOS						

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: FM RIRO Driveway & Highway 99W

11/21/2014

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1272	138	0	1957	0	23
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	1311	142	0	2018	0	24
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	885			491		
pX, platoon unblocked			0.76		0.76	0.76
vC, conflicting volume			1312		2321	657
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			770		652	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	97
cM capacity (veh/h)			645		306	825

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	656	656	142	1009	1009	24
Volume Left	0	0	0	0	0	0
Volume Right	0	0	142	0	0	24
cSH	1700	1700	1700	1700	1700	825
Volume to Capacity	0.39	0.39	0.08	0.59	0.59	0.03
Queue Length 95th (ft)	0	0	0	0	0	2
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.5
Lane LOS						A
Approach Delay (s)	0.0			0.0		9.5
Approach LOS						A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	57.8%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
4: Brutscher Street & Highway 99W

11/21/2014

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	6	20	1201	75	248	1653	42	215	13	116	14	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.5	5.5	5.0	5.5	5.5	5.0	5.0		5.0	5.0
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes		1.00	1.00	0.98	1.00	1.00	0.98	1.00	0.99		1.00	0.99
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.87		1.00	0.88
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00
Satd. Flow (prot)		1805	3406	1462	1752	3471	1582	1752	1542		1805	1588
Flt Permitted		0.95	1.00	1.00	0.95	1.00	1.00	0.71	1.00		0.58	1.00
Satd. Flow (perm)		1805	3406	1462	1752	3471	1582	1309	1542		1105	1588
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	6	21	1251	78	258	1722	44	224	14	121	15	17
RTOR Reduction (vph)	0	0	0	31	0	0	15	0	99	0	0	46
Lane Group Flow (vph)	0	27	1251	47	258	1722	29	224	36	0	15	27
Confl. Peds. (#/hr)				1						1		
Confl. Bikes (#/hr)							1			1		
Heavy Vehicles (%)	0%	0%	6%	8%	3%	4%	0%	3%	8%	5%	0%	7%
Turn Type	Prot	Prot	NA	Perm	Prot	NA	Perm	Perm	NA		Perm	NA
Protected Phases	5	5	2		1	6			8			4
Permitted Phases				2			6	8			4	
Actuated Green, G (s)		4.6	64.6	64.6	18.8	78.8	78.8	22.6	22.6		22.6	22.6
Effective Green, g (s)		4.1	64.1	64.1	18.3	78.3	78.3	22.1	22.1		22.1	22.1
Actuated g/C Ratio		0.03	0.53	0.53	0.15	0.65	0.65	0.18	0.18		0.18	0.18
Clearance Time (s)		4.5	5.0	5.0	4.5	5.0	5.0	4.5	4.5		4.5	4.5
Vehicle Extension (s)		2.3	4.8	4.8	2.3	4.8	4.8	2.5	2.5		2.5	2.5
Lane Grp Cap (vph)		61	1819	780	267	2264	1032	241	283		203	292
v/s Ratio Prot		0.01	0.37		c0.15	c0.50			0.02			0.02
v/s Ratio Perm				0.03			0.02	c0.17			0.01	
v/c Ratio		0.44	0.69	0.06	0.97	0.76	0.03	0.93	0.13		0.07	0.09
Uniform Delay, d1		56.8	20.6	13.5	50.5	14.4	7.4	48.2	40.9		40.5	40.6
Progression Factor		0.80	1.04	1.89	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2		2.2	1.6	0.1	45.3	2.5	0.0	38.7	0.1		0.1	0.1
Delay (s)		47.6	22.9	25.6	95.8	16.9	7.4	86.9	41.1		40.6	40.7
Level of Service		D	C	C	F	B	A	F	D		D	D
Approach Delay (s)			23.5			26.7			69.6			40.7
Approach LOS			C			C			E			D

Intersection Summary			
HCM 2000 Control Delay	29.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	80.8%	ICU Level of Service	D
Analysis Period (min)	15		

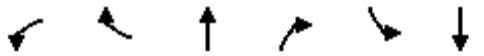
c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	54
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.96
Adj. Flow (vph)	56
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	2
Confl. Bikes (#/hr)	
Heavy Vehicles (%)	4%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

HCM Unsignalized Intersection Capacity Analysis
5: Springbrook Road & FM Main Drive Aisle

11/21/2014



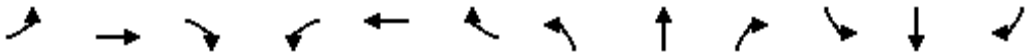
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	351	348	114	0	374
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	373	370	121	0	398
Pedestrians			1			1
Lane Width (ft)			12.0			12.0
Walking Speed (ft/s)			4.0			4.0
Percent Blockage			0			0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			717			401
pX, platoon unblocked	0.96	0.92			0.92	
vC, conflicting volume	830	432			370	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	603	334			267	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	43			100	
cM capacity (veh/h)	445	650			1199	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	373	491	398
Volume Left	0	0	0
Volume Right	373	121	0
cSH	650	1700	1700
Volume to Capacity	0.57	0.29	0.23
Queue Length 95th (ft)	92	0	0
Control Delay (s)	17.7	0.0	0.0
Lane LOS	C		
Approach Delay (s)	17.7	0.0	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	5.2		
Intersection Capacity Utilization	54.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: FM Fuel/US Bank & FM Main Drive Aisle

11/21/2014



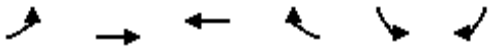
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	20	62	44	151	159	65	137	5	48	15	5	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	22	67	48	164	173	71	149	5	52	16	5	27

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total (vph)	22	115	408	207	49
Volume Left (vph)	22	0	164	149	16
Volume Right (vph)	0	48	71	52	27
Hadj (s)	0.50	-0.27	0.01	0.03	-0.19
Departure Headway (s)	6.2	5.4	4.9	5.4	5.5
Degree Utilization, x	0.04	0.17	0.56	0.31	0.07
Capacity (veh/h)	539	619	702	608	572
Control Delay (s)	8.2	8.3	14.1	10.8	8.9
Approach Delay (s)	8.3		14.1	10.8	8.9
Approach LOS	A		B	B	A

Intersection Summary				
Delay	11.9			
Level of Service	B			
Intersection Capacity Utilization	52.4%	ICU Level of Service	A	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
7: FM Main Drive Aisle & FM Right-In Driveway

11/21/2014



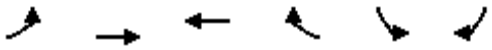
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	0	133	250	0	105	113
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	148	278	0	117	126

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total (vph)	148	278	117	126
Volume Left (vph)	0	0	117	0
Volume Right (vph)	0	0	0	126
Hadj (s)	0.03	0.02	0.50	-0.63
Departure Headway (s)	4.9	4.7	6.0	4.9
Degree Utilization, x	0.20	0.37	0.20	0.17
Capacity (veh/h)	687	725	564	687
Control Delay (s)	9.2	10.5	9.3	7.7
Approach Delay (s)	9.2	10.5	8.5	
Approach LOS	A	B	A	

Intersection Summary			
Delay	9.5		
Level of Service	A		
Intersection Capacity Utilization	30.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
8: FM Main Drive Aisle & FM RIRO Driveway

11/21/2014



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	18	122	148	5	42	96
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	20	139	168	6	48	109

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total (vph)	159	174	157
Volume Left (vph)	20	0	48
Volume Right (vph)	0	6	109
Hadj (s)	0.04	0.01	-0.34
Departure Headway (s)	4.5	4.5	4.3
Degree Utilization, x	0.20	0.22	0.19
Capacity (veh/h)	767	768	778
Control Delay (s)	8.6	8.7	8.3
Approach Delay (s)	8.6	8.7	8.3
Approach LOS	A	A	A

Intersection Summary			
Delay	8.5		
Level of Service	A		
Intersection Capacity Utilization	39.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
9: Brutscher Street & FM Main Drive Aisle/Columbia Bank

11/21/2014

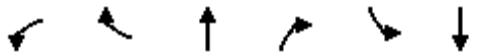
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	187	4	51	8	14	27	16	121	8	38	144	152
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	203	4	55	9	15	29	17	132	9	41	157	165
Pedestrians		1			1							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		4.0			4.0							
Percent Blockage		0			0							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											342	
pX, platoon unblocked												
vC, conflicting volume	526	499	240	551	577	137	323			141		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	526	499	240	551	577	137	323			141		
tC, single (s)	7.1	6.5	6.2	7.3	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.7	4.0	3.3	2.2			2.2		
p0 queue free %	52	99	93	98	96	97	99			97		
cM capacity (veh/h)	420	455	798	367	411	916	1247			1434		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	263	53	17	140	363
Volume Left	203	9	17	0	41
Volume Right	55	29	0	9	165
cSH	467	574	1247	1700	1434
Volume to Capacity	0.56	0.09	0.01	0.08	0.03
Queue Length 95th (ft)	85	8	1	0	2
Control Delay (s)	22.2	11.9	7.9	0.0	1.1
Lane LOS	C	B	A		A
Approach Delay (s)	22.2	11.9	0.9		1.1
Approach LOS	C	B			

Intersection Summary				
Average Delay	8.4			
Intersection Capacity Utilization	57.7%	ICU Level of Service		B
Analysis Period (min)	15			

HCM Signalized Intersection Capacity Analysis
12: Springbrook Road & Hayes Street

11/21/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	90	83	367	39	70	284
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.97	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1679	1557	1770		1703	1759
Flt Permitted	0.95	1.00	1.00		0.41	1.00
Satd. Flow (perm)	1679	1557	1770		741	1759
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	94	86	382	41	73	296
RTOR Reduction (vph)	0	76	5	0	0	0
Lane Group Flow (vph)	94	10	418	0	73	296
Confl. Peds. (#/hr)	3	4				
Confl. Bikes (#/hr)				1		
Heavy Vehicles (%)	7%	1%	6%	3%	6%	8%
Turn Type	Perm	Perm	NA		pm+pt	NA
Protected Phases			2		1	6
Permitted Phases	8	8			6	
Actuated Green, G (s)	7.0	7.0	32.2		40.0	40.0
Effective Green, g (s)	6.5	6.5	31.7		39.5	39.5
Actuated g/C Ratio	0.12	0.12	0.58		0.72	0.72
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	2.5	2.5	2.5		2.5	2.5
Lane Grp Cap (vph)	198	184	1020		589	1263
v/s Ratio Prot			c0.24		0.01	c0.17
v/s Ratio Perm	c0.06	0.01			0.08	
v/c Ratio	0.47	0.06	0.41		0.12	0.23
Uniform Delay, d1	22.7	21.5	6.5		2.8	2.6
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	1.3	0.1	1.2		0.1	0.4
Delay (s)	24.0	21.6	7.7		2.9	3.1
Level of Service	C	C	A		A	A
Approach Delay (s)	22.8		7.7			3.0
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay	8.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	43.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
1: Springbrook Road & Highway 99W

11/21/2014

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (vph)	4	99	1121	66	11	147	1502	277	364	207	147	357
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.5	5.5		5.0	5.5	5.5	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00	0.95	1.00		1.00	0.95	1.00	0.97	1.00	1.00	0.97
Frpb, ped/bikes		1.00	1.00	0.98		1.00	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)		1787	3406	1438		1719	3505	1519	3433	1863	1455	3433
Flt Permitted		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (perm)		1787	3406	1438		1719	3505	1519	3433	1863	1455	3433
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	4	101	1144	67	11	150	1533	283	371	211	150	364
RTOR Reduction (vph)	0	0	0	38	0	0	0	113	0	0	132	0
Lane Group Flow (vph)	0	105	1144	29	0	161	1533	170	371	211	18	364
Confl. Peds. (#/hr)								1				
Confl. Bikes (#/hr)				1								
Heavy Vehicles (%)	1%	1%	6%	10%	5%	5%	3%	4%	2%	2%	11%	2%
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases	5	5	2		1	1	6		3	8		7
Permitted Phases				2				6			8	
Actuated Green, G (s)		11.5	52.9	52.9		18.3	59.7	59.7	16.3	15.2	15.2	15.1
Effective Green, g (s)		11.0	52.4	52.4		17.8	59.2	59.2	15.8	14.7	14.7	14.6
Actuated g/C Ratio		0.09	0.44	0.44		0.15	0.49	0.49	0.13	0.12	0.12	0.12
Clearance Time (s)		4.5	5.0	5.0		4.5	5.0	5.0	4.5	4.5	4.5	4.5
Vehicle Extension (s)		2.3	4.2	4.2		2.5	4.2	4.2	2.3	2.3	2.3	2.3
Lane Grp Cap (vph)		163	1487	627		254	1729	749	452	228	178	417
v/s Ratio Prot		0.06	c0.34			0.09	c0.44		c0.11	c0.11		0.11
v/s Ratio Perm				0.02				0.11			0.01	
v/c Ratio		0.64	0.77	0.05		0.63	0.89	0.23	0.82	0.93	0.10	0.87
Uniform Delay, d1		52.6	28.7	19.4		48.0	27.4	17.3	50.7	52.1	46.8	51.8
Progression Factor		1.00	1.00	1.00		0.87	0.79	0.52	1.00	1.00	1.00	1.00
Incremental Delay, d2		7.0	3.9	0.1		3.0	4.9	0.5	11.0	39.1	0.1	17.6
Delay (s)		59.7	32.6	19.6		45.0	26.5	9.4	61.8	91.3	46.9	69.4
Level of Service		E	C	B		D	C	A	E	F	D	E
Approach Delay (s)			34.1				25.6			67.2		
Approach LOS			C				C			E		

Intersection Summary			
HCM 2000 Control Delay	40.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	87.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
1: Springbrook Road & Highway 99W

11/21/2014

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	155	116
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.0	5.0
Lane Util. Factor	1.00	1.00
Frpb, ped/bikes	1.00	0.98
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1727	1515
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1727	1515
Peak-hour factor, PHF	0.98	0.98
Adj. Flow (vph)	158	118
RTOR Reduction (vph)	0	105
Lane Group Flow (vph)	158	13
Confl. Peds. (#/hr)		9
Confl. Bikes (#/hr)		1
Heavy Vehicles (%)	10%	4%
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Actuated Green, G (s)	14.0	14.0
Effective Green, g (s)	13.5	13.5
Actuated g/C Ratio	0.11	0.11
Clearance Time (s)	4.5	4.5
Vehicle Extension (s)	2.3	2.3
Lane Grp Cap (vph)	194	170
v/s Ratio Prot	0.09	
v/s Ratio Perm		0.01
v/c Ratio	0.81	0.08
Uniform Delay, d1	52.0	47.7
Progression Factor	1.00	1.00
Incremental Delay, d2	21.7	0.1
Delay (s)	73.7	47.8
Level of Service	E	D
Approach Delay (s)	66.5	
Approach LOS	E	

Intersection Summary

HCM Unsignalized Intersection Capacity Analysis
2: FM Right-In Driveway & Highway 99W

11/21/2014

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1419	230	0	1965	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	1463	237	0	2026	0	0
Pedestrians					1	
Lane Width (ft)					0.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	478			898		
pX, platoon unblocked			0.73		0.86	0.73
vC, conflicting volume			1464		2139	732
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			887		122	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			561		747	788

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3
Volume Total	731	731	237	675	675	675
Volume Left	0	0	0	0	0	0
Volume Right	0	0	237	0	0	0
cSH	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.43	0.43	0.14	0.40	0.40	0.40
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS						
Approach Delay (s)	0.0			0.0		
Approach LOS						

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	43.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: FM RIRO Driveway & Highway 99W

11/21/2014

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1269	138	0	1953	0	28
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	1308	142	0	2013	0	29
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	885			491		
pX, platoon unblocked			0.76		0.76	0.76
vC, conflicting volume			1309		2316	655
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			764		649	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	96
cM capacity (veh/h)			648		308	824

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	654	654	142	1007	1007	29
Volume Left	0	0	0	0	0	0
Volume Right	0	0	142	0	0	29
cSH	1700	1700	1700	1700	1700	824
Volume to Capacity	0.38	0.38	0.08	0.59	0.59	0.04
Queue Length 95th (ft)	0	0	0	0	0	3
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.5
Lane LOS						A
Approach Delay (s)	0.0			0.0		9.5
Approach LOS						A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	57.7%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
4: Brutscher Street & Highway 99W

11/21/2014

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	6	20	1202	75	254	1649	42	215	13	116	14	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.5	5.5	5.0	5.5	5.5	5.0	5.0		5.0	5.0
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes		1.00	1.00	0.98	1.00	1.00	0.98	1.00	0.99		1.00	0.99
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.87		1.00	0.88
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00
Satd. Flow (prot)		1805	3406	1462	1752	3471	1582	1752	1542		1805	1588
Flt Permitted		0.95	1.00	1.00	0.95	1.00	1.00	0.71	1.00		0.58	1.00
Satd. Flow (perm)		1805	3406	1462	1752	3471	1582	1309	1542		1105	1588
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	6	21	1252	78	265	1718	44	224	14	121	15	17
RTOR Reduction (vph)	0	0	0	31	0	0	15	0	99	0	0	46
Lane Group Flow (vph)	0	27	1252	47	265	1718	29	224	36	0	15	27
Confl. Peds. (#/hr)				1						1		
Confl. Bikes (#/hr)							1			1		
Heavy Vehicles (%)	0%	0%	6%	8%	3%	4%	0%	3%	8%	5%	0%	7%
Turn Type	Prot	Prot	NA	Perm	Prot	NA	Perm	Perm	NA		Perm	NA
Protected Phases	5	5	2		1	6			8			4
Permitted Phases				2			6	8			4	
Actuated Green, G (s)		4.6	64.5	64.5	18.9	78.8	78.8	22.6	22.6		22.6	22.6
Effective Green, g (s)		4.1	64.0	64.0	18.4	78.3	78.3	22.1	22.1		22.1	22.1
Actuated g/C Ratio		0.03	0.53	0.53	0.15	0.65	0.65	0.18	0.18		0.18	0.18
Clearance Time (s)		4.5	5.0	5.0	4.5	5.0	5.0	4.5	4.5		4.5	4.5
Vehicle Extension (s)		2.3	4.8	4.8	2.3	4.8	4.8	2.5	2.5		2.5	2.5
Lane Grp Cap (vph)		61	1816	779	268	2264	1032	241	283		203	292
v/s Ratio Prot		0.01	0.37		c0.15	c0.49			0.02			0.02
v/s Ratio Perm				0.03			0.02	c0.17			0.01	
v/c Ratio		0.44	0.69	0.06	0.99	0.76	0.03	0.93	0.13		0.07	0.09
Uniform Delay, d1		56.8	20.7	13.5	50.7	14.4	7.4	48.2	40.9		40.5	40.6
Progression Factor		0.81	1.04	1.90	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2		2.2	1.6	0.1	51.3	2.4	0.0	38.7	0.1		0.1	0.1
Delay (s)		47.9	23.1	25.7	102.0	16.8	7.4	86.9	41.1		40.6	40.7
Level of Service		D	C	C	F	B	A	F	D		D	D
Approach Delay (s)			23.8			27.7			69.6			40.7
Approach LOS			C			C			E			D

Intersection Summary			
HCM 2000 Control Delay	30.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	80.6%	ICU Level of Service	D
Analysis Period (min)	15		

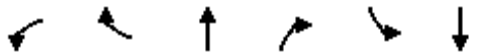
c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	54
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.96
Adj. Flow (vph)	56
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	2
Confl. Bikes (#/hr)	
Heavy Vehicles (%)	4%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

HCM Unsignalized Intersection Capacity Analysis
5: Springbrook Road & FM Main Drive Aisle

11/21/2014



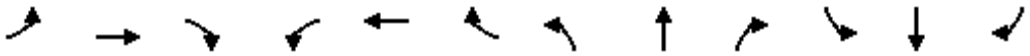
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	363	347	117	0	373
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	386	369	124	0	397
Pedestrians			1			1
Lane Width (ft)			12.0			12.0
Walking Speed (ft/s)			4.0			4.0
Percent Blockage			0			0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			717			401
pX, platoon unblocked	0.96	0.91			0.91	
vC, conflicting volume	829	432			369	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	602	333			264	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	41			100	
cM capacity (veh/h)	445	650			1200	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	386	494	397
Volume Left	0	0	0
Volume Right	386	124	0
cSH	650	1700	1700
Volume to Capacity	0.59	0.29	0.23
Queue Length 95th (ft)	98	0	0
Control Delay (s)	18.3	0.0	0.0
Lane LOS	C		
Approach Delay (s)	18.3	0.0	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	5.5		
Intersection Capacity Utilization	55.5%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: FM Fuel/US Bank & FM Main Drive Aisle

11/21/2014



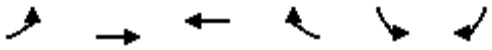
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	20	62	47	175	159	65	149	5	64	15	5	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	22	67	51	190	173	71	162	5	70	16	5	27

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total (vph)	22	118	434	237	49
Volume Left (vph)	22	0	190	162	16
Volume Right (vph)	0	51	71	70	27
Hadj (s)	0.50	-0.28	0.02	-0.01	-0.19
Departure Headway (s)	6.4	5.6	5.1	5.5	5.7
Degree Utilization, x	0.04	0.18	0.61	0.36	0.08
Capacity (veh/h)	522	598	685	602	547
Control Delay (s)	8.4	8.6	15.7	11.5	9.1
Approach Delay (s)	8.6		15.7	11.5	9.1
Approach LOS	A		C	B	A

Intersection Summary				
Delay	13.0			
Level of Service	B			
Intersection Capacity Utilization	55.4%	ICU Level of Service		B
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
7: FM Main Drive Aisle & FM Right-In Driveway

11/21/2014



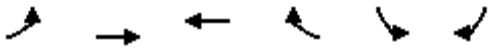
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	0	149	262	0	105	125
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	166	291	0	117	139

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total (vph)	166	291	117	139
Volume Left (vph)	0	0	117	0
Volume Right (vph)	0	0	0	139
Hadj (s)	0.03	0.02	0.50	-0.63
Departure Headway (s)	5.0	4.8	6.1	5.0
Degree Utilization, x	0.23	0.39	0.20	0.19
Capacity (veh/h)	679	715	555	674
Control Delay (s)	9.5	10.8	9.4	8.0
Approach Delay (s)	9.5	10.8	8.6	
Approach LOS	A	B	A	

Intersection Summary			
Delay	9.7		
Level of Service	A		
Intersection Capacity Utilization	31.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
8: FM Main Drive Aisle & FM RIRO Driveway

11/21/2014



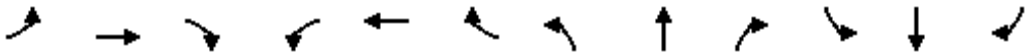
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	23	127	155	5	42	96
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	26	144	176	6	48	109

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total (vph)	170	182	157
Volume Left (vph)	26	0	48
Volume Right (vph)	0	6	109
Hadj (s)	0.05	0.01	-0.34
Departure Headway (s)	4.5	4.5	4.4
Degree Utilization, x	0.21	0.23	0.19
Capacity (veh/h)	764	765	768
Control Delay (s)	8.7	8.8	8.4
Approach Delay (s)	8.7	8.8	8.4
Approach LOS	A	A	A

Intersection Summary			
Delay	8.6		
Level of Service	A		
Intersection Capacity Utilization	40.1%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
9: Brutscher Street & FM Main Drive Aisle/Columbia Bank

11/21/2014



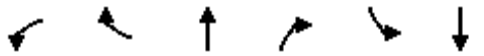
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	187	4	56	8	14	27	16	121	8	38	143	159
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	203	4	61	9	15	29	17	132	9	41	155	173
Pedestrians		1			1							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		4.0			4.0							
Percent Blockage		0			0							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											342	
pX, platoon unblocked												
vC, conflicting volume	529	501	243	559	584	137	329			141		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	529	501	243	559	584	137	329			141		
tC, single (s)	7.1	6.5	6.2	7.3	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.7	4.0	3.3	2.2			2.2		
p0 queue free %	51	99	92	98	96	97	99			97		
cM capacity (veh/h)	418	454	795	360	408	916	1241			1434		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	268	53	17	140	370
Volume Left	203	9	17	0	41
Volume Right	61	29	0	9	173
cSH	469	569	1241	1700	1434
Volume to Capacity	0.57	0.09	0.01	0.08	0.03
Queue Length 95th (ft)	88	8	1	0	2
Control Delay (s)	22.4	12.0	7.9	0.0	1.1
Lane LOS	C	B	A		A
Approach Delay (s)	22.4	12.0	0.9		1.1
Approach LOS	C	B			

Intersection Summary				
Average Delay	8.5			
Intersection Capacity Utilization	58.4%	ICU Level of Service		B
Analysis Period (min)	15			

HCM Signalized Intersection Capacity Analysis
12: Springbrook Road & Hayes Street

11/21/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	93	84	368	39	70	283
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.97	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1679	1557	1770		1703	1759
Flt Permitted	0.95	1.00	1.00		0.41	1.00
Satd. Flow (perm)	1679	1557	1770		739	1759
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	97	88	383	41	73	295
RTOR Reduction (vph)	0	77	5	0	0	0
Lane Group Flow (vph)	97	11	419	0	73	295
Confl. Peds. (#/hr)	3	4				
Confl. Bikes (#/hr)				1		
Heavy Vehicles (%)	7%	1%	6%	3%	6%	8%
Turn Type	Perm	Perm	NA		pm+pt	NA
Protected Phases			2		1	6
Permitted Phases	8	8			6	
Actuated Green, G (s)	7.1	7.1	32.1		39.9	39.9
Effective Green, g (s)	6.6	6.6	31.6		39.4	39.4
Actuated g/C Ratio	0.12	0.12	0.57		0.72	0.72
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	2.5	2.5	2.5		2.5	2.5
Lane Grp Cap (vph)	201	186	1016		587	1260
v/s Ratio Prot			c0.24		0.01	c0.17
v/s Ratio Perm	c0.06	0.01			0.08	
v/c Ratio	0.48	0.06	0.41		0.12	0.23
Uniform Delay, d1	22.6	21.4	6.5		2.8	2.7
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	1.3	0.1	1.2		0.1	0.4
Delay (s)	23.9	21.5	7.8		2.9	3.1
Level of Service	C	C	A		A	A
Approach Delay (s)	22.8		7.8			3.1
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay	8.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	43.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
1: Springbrook Road & Highway 99W

11/21/2014

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (vph)	2	106	1265	60	20	154	1318	117	280	134	123	285
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.5	5.5		5.0	5.5	5.5	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00	0.95	1.00		1.00	0.95	1.00	0.97	1.00	1.00	0.97
Frpb, ped/bikes		1.00	1.00	0.98		1.00	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)		1787	3406	1438		1719	3505	1520	3433	1863	1455	3433
Flt Permitted		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (perm)		1787	3406	1438		1719	3505	1520	3433	1863	1455	3433
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	2	108	1291	61	20	157	1345	119	286	137	126	291
RTOR Reduction (vph)	0	0	0	35	0	0	0	62	0	0	112	0
Lane Group Flow (vph)	0	110	1291	26	0	177	1345	57	286	137	14	291
Confl. Peds. (#/hr)								1				
Confl. Bikes (#/hr)				1								
Heavy Vehicles (%)	1%	1%	6%	10%	5%	5%	3%	4%	2%	2%	11%	2%
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases	5	5	2		1	1	6		3	8		7
Permitted Phases				2				6			8	
Actuated Green, G (s)		10.4	43.6	43.6		13.5	46.7	46.7	13.3	11.6	11.6	12.8
Effective Green, g (s)		9.9	43.1	43.1		13.0	46.2	46.2	12.8	11.1	11.1	12.3
Actuated g/C Ratio		0.10	0.43	0.43		0.13	0.46	0.46	0.13	0.11	0.11	0.12
Clearance Time (s)		4.5	5.0	5.0		4.5	5.0	5.0	4.5	4.5	4.5	4.5
Vehicle Extension (s)		2.3	4.2	4.2		2.5	4.2	4.2	2.3	2.3	2.3	2.3
Lane Grp Cap (vph)		176	1467	619		223	1619	702	439	206	161	422
v/s Ratio Prot		0.06	c0.38			0.10	c0.38		0.08	c0.07		c0.08
v/s Ratio Perm				0.02				0.04			0.01	
v/c Ratio		0.62	0.88	0.04		0.79	0.83	0.08	0.65	0.67	0.09	0.69
Uniform Delay, d1		43.3	26.1	16.5		42.2	23.5	15.0	41.5	42.7	39.9	42.0
Progression Factor		1.00	1.00	1.00		0.75	0.59	0.27	1.00	1.00	1.00	1.00
Incremental Delay, d2		5.5	7.9	0.1		12.5	3.7	0.2	2.9	6.7	0.1	4.1
Delay (s)		48.7	33.9	16.6		44.1	17.6	4.2	44.4	49.4	40.0	46.1
Level of Service		D	C	B		D	B	A	D	D	D	D
Approach Delay (s)			34.3				19.5			44.6		
Approach LOS			C				B			D		

Intersection Summary			
HCM 2000 Control Delay	31.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	80.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
1: Springbrook Road & Highway 99W

11/21/2014

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	113	89
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.0	5.0
Lane Util. Factor	1.00	1.00
Frpb, ped/bikes	1.00	0.98
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1727	1518
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1727	1518
Peak-hour factor, PHF	0.98	0.98
Adj. Flow (vph)	115	91
RTOR Reduction (vph)	0	81
Lane Group Flow (vph)	115	10
Confl. Peds. (#/hr)		9
Confl. Bikes (#/hr)		1
Heavy Vehicles (%)	10%	4%
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Actuated Green, G (s)	11.1	11.1
Effective Green, g (s)	10.6	10.6
Actuated g/C Ratio	0.11	0.11
Clearance Time (s)	4.5	4.5
Vehicle Extension (s)	2.3	2.3
Lane Grp Cap (vph)	183	160
v/s Ratio Prot	0.07	
v/s Ratio Perm		0.01
v/c Ratio	0.63	0.06
Uniform Delay, d1	42.8	40.2
Progression Factor	1.00	1.00
Incremental Delay, d2	5.4	0.1
Delay (s)	48.2	40.3
Level of Service	D	D
Approach Delay (s)	45.5	
Approach LOS	D	

Intersection Summary

HCM Unsignalized Intersection Capacity Analysis
2: FM Right-In Driveway & Highway 99W

11/21/2014

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1453	251	0	1627	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	1498	259	0	1677	0	0
Pedestrians					1	
Lane Width (ft)					0.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	478			898		
pX, platoon unblocked			0.67		0.77	0.67
vC, conflicting volume			1499		2058	750
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			747		209	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			580		586	722

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3
Volume Total	749	749	259	559	559	559
Volume Left	0	0	0	0	0	0
Volume Right	0	0	259	0	0	0
cSH	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.44	0.44	0.15	0.33	0.33	0.33
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS						
Approach Delay (s)	0.0			0.0		
Approach LOS						

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	43.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: FM RIRO Driveway & Highway 99W

11/21/2014

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1287	156	0	1646	0	22
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	1327	161	0	1697	0	23
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	885			491		
pX, platoon unblocked			0.71		0.84	0.71
vC, conflicting volume			1328		2176	664
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			628		437	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	97
cM capacity (veh/h)			679		464	769

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	663	663	161	848	848	23
Volume Left	0	0	0	0	0	0
Volume Right	0	0	161	0	0	23
cSH	1700	1700	1700	1700	1700	769
Volume to Capacity	0.39	0.39	0.09	0.50	0.50	0.03
Queue Length 95th (ft)	0	0	0	0	0	2
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.8
Lane LOS						A
Approach Delay (s)	0.0			0.0		9.8
Approach LOS						A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	49.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
4: Brutscher Street & Highway 99W

11/21/2014

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	7	24	1213	47	154	1395	50	198	8	137	13	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.5	5.5	5.0	5.5	5.5	5.0	5.0		5.0	5.0
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes		1.00	1.00	0.98	1.00	1.00	0.98	1.00	0.99		1.00	0.99
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.86		1.00	0.87
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00
Satd. Flow (prot)		1805	3406	1462	1752	3471	1582	1752	1529		1805	1569
Flt Permitted		0.95	1.00	1.00	0.95	1.00	1.00	0.72	1.00		0.57	1.00
Satd. Flow (perm)		1805	3406	1462	1752	3471	1582	1325	1529		1086	1569
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	7	25	1264	49	160	1453	52	206	8	143	14	9
RTOR Reduction (vph)	0	0	0	22	0	0	21	0	117	0	0	41
Lane Group Flow (vph)	0	32	1264	27	160	1453	31	206	34	0	14	18
Confl. Peds. (#/hr)				1						1		
Confl. Bikes (#/hr)							1			1		
Heavy Vehicles (%)	0%	0%	6%	8%	3%	4%	0%	3%	8%	5%	0%	7%
Turn Type	Prot	Prot	NA	Perm	Prot	NA	Perm	Perm	NA		Perm	NA
Protected Phases	5	5	2		1	6			8			4
Permitted Phases				2			6	8			4	
Actuated Green, G (s)		7.9	55.0	55.0	12.2	59.3	59.3	18.8	18.8		18.8	18.8
Effective Green, g (s)		7.4	54.5	54.5	11.7	58.8	58.8	18.3	18.3		18.3	18.3
Actuated g/C Ratio		0.07	0.54	0.54	0.12	0.59	0.59	0.18	0.18		0.18	0.18
Clearance Time (s)		4.5	5.0	5.0	4.5	5.0	5.0	4.5	4.5		4.5	4.5
Vehicle Extension (s)		2.3	4.8	4.8	2.3	4.8	4.8	2.5	2.5		2.5	2.5
Lane Grp Cap (vph)		133	1856	796	204	2040	930	242	279		198	287
v/s Ratio Prot		0.02	c0.37		0.09	c0.42			0.02			0.01
v/s Ratio Perm				0.02			0.02	c0.16			0.01	
v/c Ratio		0.24	0.68	0.03	0.78	0.71	0.03	0.85	0.12		0.07	0.06
Uniform Delay, d1		43.7	16.5	10.5	42.9	14.6	8.7	39.5	34.1		33.8	33.8
Progression Factor		0.75	0.65	1.26	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2		0.3	1.3	0.0	16.9	2.1	0.1	23.6	0.1		0.1	0.1
Delay (s)		33.0	12.0	13.4	59.8	16.8	8.7	63.1	34.3		33.9	33.8
Level of Service		C	B	B	E	B	A	E	C		C	C
Approach Delay (s)			12.5			20.6			50.9			33.9
Approach LOS			B			C			D			C

Intersection Summary			
HCM 2000 Control Delay	20.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		

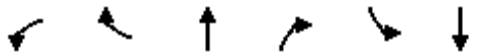
c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	48
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.96
Adj. Flow (vph)	50
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	2
Confl. Bikes (#/hr)	
Heavy Vehicles (%)	4%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

HCM Unsignalized Intersection Capacity Analysis
5: Springbrook Road & FM Main Drive Aisle

11/21/2014



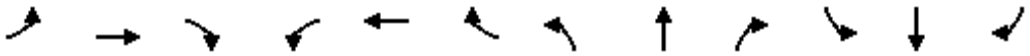
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	312	226	110	0	322
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	332	240	117	0	343
Pedestrians			1			1
Lane Width (ft)			12.0			12.0
Walking Speed (ft/s)			4.0			4.0
Percent Blockage			0			0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			717			401
pX, platoon unblocked	0.95					
vC, conflicting volume	642	300			240	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	594	300			240	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	55			100	
cM capacity (veh/h)	445	741			1338	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	332	357	343
Volume Left	0	0	0
Volume Right	332	117	0
cSH	741	1700	1700
Volume to Capacity	0.45	0.21	0.20
Queue Length 95th (ft)	58	0	0
Control Delay (s)	13.7	0.0	0.0
Lane LOS	B		
Approach Delay (s)	13.7	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	4.4		
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: FM Fuel/US Bank & FM Main Drive Aisle

11/21/2014



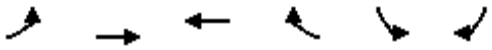
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	3	75	40	127	194	39	99	0	51	0	0	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	82	43	138	211	42	108	0	55	0	0	14

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total (vph)	3	125	391	163	14
Volume Left (vph)	3	0	138	108	0
Volume Right (vph)	0	43	42	55	14
Hadj (s)	0.50	-0.22	0.04	-0.04	-0.53
Departure Headway (s)	5.8	5.1	4.7	5.1	4.9
Degree Utilization, x	0.01	0.18	0.51	0.23	0.02
Capacity (veh/h)	588	665	743	645	638
Control Delay (s)	7.7	8.0	12.4	9.7	8.0
Approach Delay (s)	8.0		12.4	9.7	8.0
Approach LOS	A		B	A	A

Intersection Summary				
Delay	10.9			
Level of Service	B			
Intersection Capacity Utilization	49.2%	ICU Level of Service	A	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
7: FM Main Drive Aisle & FM Right-In Driveway

11/21/2014



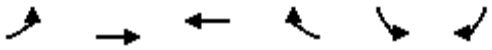
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	0	122	240	0	139	112
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	136	267	0	154	124

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total (vph)	136	267	154	124
Volume Left (vph)	0	0	154	0
Volume Right (vph)	0	0	0	124
Hadj (s)	0.03	0.02	0.50	-0.63
Departure Headway (s)	5.0	4.8	6.0	4.9
Degree Utilization, x	0.19	0.36	0.26	0.17
Capacity (veh/h)	673	711	571	696
Control Delay (s)	9.2	10.5	9.9	7.6
Approach Delay (s)	9.2	10.5	8.9	
Approach LOS	A	B	A	

Intersection Summary			
Delay	9.6		
Level of Service	A		
Intersection Capacity Utilization	30.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
8: FM Main Drive Aisle & FM RIRO Driveway

11/21/2014



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	17	119	109	5	58	98
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	19	135	124	6	66	111

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total (vph)	155	130	177
Volume Left (vph)	19	0	66
Volume Right (vph)	0	6	111
Hadj (s)	0.04	0.01	-0.29
Departure Headway (s)	4.5	4.5	4.3
Degree Utilization, x	0.19	0.16	0.21
Capacity (veh/h)	767	758	795
Control Delay (s)	8.6	8.4	8.4
Approach Delay (s)	8.6	8.4	8.4
Approach LOS	A	A	A

Intersection Summary			
Delay	8.4		
Level of Service	A		
Intersection Capacity Utilization	33.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
9: Brutscher Street & FM Main Drive Aisle/Columbia Bank

11/21/2014

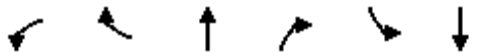
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	225	2	48	4	1	6	13	106	2	5	72	132
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	245	2	52	4	1	7	14	115	2	5	78	143
Pedestrians		1			1							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		4.0			4.0							
Percent Blockage		0			0							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											342	
pX, platoon unblocked												
vC, conflicting volume	312	309	151	360	379	117	223			118		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	312	309	151	360	379	117	223			118		
tC, single (s)	7.1	6.5	6.2	7.3	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.7	4.0	3.3	2.2			2.2		
p0 queue free %	61	100	94	99	100	99	99			100		
cM capacity (veh/h)	627	599	895	515	547	939	1357			1462		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	299	12	14	117	227
Volume Left	245	4	14	0	5
Volume Right	52	7	0	2	143
cSH	661	688	1357	1700	1462
Volume to Capacity	0.45	0.02	0.01	0.07	0.00
Queue Length 95th (ft)	59	1	1	0	0
Control Delay (s)	14.9	10.3	7.7	0.0	0.2
Lane LOS	B	B	A		A
Approach Delay (s)	14.9	10.3	0.8		0.2
Approach LOS	B	B			

Intersection Summary				
Average Delay	7.1			
Intersection Capacity Utilization	46.0%	ICU Level of Service		A
Analysis Period (min)	15			

HCM Signalized Intersection Capacity Analysis
12: Springbrook Road & Hayes Street

11/21/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	54	69	224	23	53	242
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.97	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1679	1557	1771		1703	1759
Flt Permitted	0.95	1.00	1.00		0.53	1.00
Satd. Flow (perm)	1679	1557	1771		947	1759
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	56	72	233	24	55	252
RTOR Reduction (vph)	0	65	4	0	0	0
Lane Group Flow (vph)	56	7	253	0	55	252
Confl. Peds. (#/hr)	3	4				
Confl. Bikes (#/hr)				1		
Heavy Vehicles (%)	7%	1%	6%	3%	6%	8%
Turn Type	Perm	Perm	NA		pm+pt	NA
Protected Phases			2		1	6
Permitted Phases	8	8			6	
Actuated Green, G (s)	5.9	5.9	33.6		41.1	41.1
Effective Green, g (s)	5.4	5.4	33.1		40.6	40.6
Actuated g/C Ratio	0.10	0.10	0.60		0.74	0.74
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	2.5	2.5	2.5		2.5	2.5
Lane Grp Cap (vph)	164	152	1065		740	1298
v/s Ratio Prot			c0.14		0.00	c0.14
v/s Ratio Perm	c0.03	0.00			0.05	
v/c Ratio	0.34	0.05	0.24		0.07	0.19
Uniform Delay, d1	23.1	22.5	5.1		2.1	2.2
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.9	0.1	0.5		0.0	0.3
Delay (s)	24.0	22.6	5.6		2.2	2.5
Level of Service	C	C	A		A	A
Approach Delay (s)	23.2		5.6			2.5
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay	7.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	32.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
1: Springbrook Road & Highway 99W

11/21/2014

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (vph)	2	108	1290	64	20	157	1344	119	291	140	125	291
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.5	5.5		5.0	5.5	5.5	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00	0.95	1.00		1.00	0.95	1.00	0.97	1.00	1.00	0.97
Frpb, ped/bikes		1.00	1.00	0.98		1.00	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)		1787	3406	1438		1719	3505	1520	3433	1863	1455	3433
Flt Permitted		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (perm)		1787	3406	1438		1719	3505	1520	3433	1863	1455	3433
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	2	110	1316	65	20	160	1371	121	297	143	128	297
RTOR Reduction (vph)	0	0	0	37	0	0	0	62	0	0	113	0
Lane Group Flow (vph)	0	112	1316	28	0	180	1371	59	297	143	15	297
Confl. Peds. (#/hr)								1				
Confl. Bikes (#/hr)				1								
Heavy Vehicles (%)	1%	1%	6%	10%	5%	5%	3%	4%	2%	2%	11%	2%
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases	5	5	2		1	1	6		3	8		7
Permitted Phases				2				6			8	
Actuated Green, G (s)		10.5	43.2	43.2		13.5	46.2	46.2	13.4	11.9	11.9	12.9
Effective Green, g (s)		10.0	42.7	42.7		13.0	45.7	45.7	12.9	11.4	11.4	12.4
Actuated g/C Ratio		0.10	0.43	0.43		0.13	0.46	0.46	0.13	0.11	0.11	0.12
Clearance Time (s)		4.5	5.0	5.0		4.5	5.0	5.0	4.5	4.5	4.5	4.5
Vehicle Extension (s)		2.3	4.2	4.2		2.5	4.2	4.2	2.3	2.3	2.3	2.3
Lane Grp Cap (vph)		178	1454	614		223	1601	694	442	212	165	425
v/s Ratio Prot		0.06	c0.39			0.10	c0.39		c0.09	c0.08		0.09
v/s Ratio Perm				0.02				0.04			0.01	
v/c Ratio		0.63	0.91	0.05		0.81	0.86	0.08	0.67	0.67	0.09	0.70
Uniform Delay, d1		43.2	26.8	16.7		42.3	24.2	15.3	41.5	42.5	39.6	42.0
Progression Factor		1.00	1.00	1.00		0.75	0.59	0.26	1.00	1.00	1.00	1.00
Incremental Delay, d2		5.5	9.6	0.1		13.4	4.4	0.2	3.4	7.1	0.1	4.4
Delay (s)		48.7	36.4	16.9		44.9	18.6	4.2	45.0	49.6	39.8	46.4
Level of Service		D	D	B		D	B	A	D	D	D	D
Approach Delay (s)			36.5				20.4			45.0		
Approach LOS			D				C			D		

Intersection Summary			
HCM 2000 Control Delay	32.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	82.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
1: Springbrook Road & Highway 99W

11/21/2014

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	120	91
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.0	5.0
Lane Util. Factor	1.00	1.00
Frpb, ped/bikes	1.00	0.98
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1727	1518
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1727	1518
Peak-hour factor, PHF	0.98	0.98
Adj. Flow (vph)	122	93
RTOR Reduction (vph)	0	83
Lane Group Flow (vph)	122	10
Confl. Peds. (#/hr)		9
Confl. Bikes (#/hr)		1
Heavy Vehicles (%)	10%	4%
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Actuated Green, G (s)	11.4	11.4
Effective Green, g (s)	10.9	10.9
Actuated g/C Ratio	0.11	0.11
Clearance Time (s)	4.5	4.5
Vehicle Extension (s)	2.3	2.3
Lane Grp Cap (vph)	188	165
v/s Ratio Prot	0.07	
v/s Ratio Perm		0.01
v/c Ratio	0.65	0.06
Uniform Delay, d1	42.7	40.0
Progression Factor	1.00	1.00
Incremental Delay, d2	6.3	0.1
Delay (s)	49.0	40.1
Level of Service	D	D
Approach Delay (s)	45.8	
Approach LOS	D	

Intersection Summary

HCM Unsignalized Intersection Capacity Analysis
2: FM Right-In Driveway & Highway 99W

11/21/2014

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1482	251	0	1660	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	1528	259	0	1711	0	0
Pedestrians					1	
Lane Width (ft)					0.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	478			898		
pX, platoon unblocked			0.65		0.76	0.65
vC, conflicting volume			1529		2099	765
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			744		155	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			569		625	707

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3
Volume Total	764	764	259	570	570	570
Volume Left	0	0	0	0	0	0
Volume Right	0	0	259	0	0	0
cSH	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.45	0.45	0.15	0.34	0.34	0.34
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS						
Approach Delay (s)	0.0			0.0		
Approach LOS						

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	44.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: FM RIRO Driveway & Highway 99W

11/21/2014

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1313	156	0	1679	0	22
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	1354	161	0	1731	0	23
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	885			491		
pX, platoon unblocked			0.69		0.84	0.69
vC, conflicting volume			1355		2220	678
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			617		402	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	97
cM capacity (veh/h)			671		486	753

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	677	677	161	865	865	23
Volume Left	0	0	0	0	0	0
Volume Right	0	0	161	0	0	23
cSH	1700	1700	1700	1700	1700	753
Volume to Capacity	0.40	0.40	0.09	0.51	0.51	0.03
Queue Length 95th (ft)	0	0	0	0	0	2
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.9
Lane LOS						A
Approach Delay (s)	0.0			0.0		9.9
Approach LOS						A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	50.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
4: Brutscher Street & Highway 99W

11/21/2014

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	7	24	1237	48	162	1423	51	202	8	146	13	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.5	5.5	5.0	5.5	5.5	5.0	5.0		5.0	5.0
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes		1.00	1.00	0.98	1.00	1.00	0.98	1.00	0.99		1.00	0.99
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.86		1.00	0.87
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00
Satd. Flow (prot)		1805	3406	1462	1752	3471	1582	1752	1529		1805	1568
Flt Permitted		0.95	1.00	1.00	0.95	1.00	1.00	0.72	1.00		0.55	1.00
Satd. Flow (perm)		1805	3406	1462	1752	3471	1582	1324	1529		1038	1568
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	7	25	1289	50	169	1482	53	210	8	152	14	9
RTOR Reduction (vph)	0	0	0	23	0	0	22	0	125	0	0	42
Lane Group Flow (vph)	0	32	1289	27	169	1482	31	210	35	0	14	18
Confl. Peds. (#/hr)				1						1		
Confl. Bikes (#/hr)							1			1		
Heavy Vehicles (%)	0%	0%	6%	8%	3%	4%	0%	3%	8%	5%	0%	7%
Turn Type	Prot	Prot	NA	Perm	Prot	NA	Perm	Perm	NA		Perm	NA
Protected Phases	5	5	2		1	6			8			4
Permitted Phases				2			6	8			4	
Actuated Green, G (s)		8.0	55.1	55.1	12.4	59.5	59.5	18.5	18.5		18.5	18.5
Effective Green, g (s)		7.5	54.6	54.6	11.9	59.0	59.0	18.0	18.0		18.0	18.0
Actuated g/C Ratio		0.08	0.55	0.55	0.12	0.59	0.59	0.18	0.18		0.18	0.18
Clearance Time (s)		4.5	5.0	5.0	4.5	5.0	5.0	4.5	4.5		4.5	4.5
Vehicle Extension (s)		2.3	4.8	4.8	2.3	4.8	4.8	2.5	2.5		2.5	2.5
Lane Grp Cap (vph)		135	1859	798	208	2047	933	238	275		186	282
v/s Ratio Prot		0.02	c0.38		0.10	c0.43			0.02			0.01
v/s Ratio Perm				0.02			0.02	c0.16			0.01	
v/c Ratio		0.24	0.69	0.03	0.81	0.72	0.03	0.88	0.13		0.08	0.06
Uniform Delay, d1		43.6	16.6	10.5	43.0	14.7	8.6	40.0	34.4		34.1	34.0
Progression Factor		0.74	0.62	1.27	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2		0.3	1.3	0.0	20.3	2.3	0.1	29.3	0.2		0.1	0.1
Delay (s)		32.7	11.5	13.4	63.2	16.9	8.6	69.3	34.6		34.2	34.1
Level of Service		C	B	B	E	B	A	E	C		C	C
Approach Delay (s)			12.1			21.3			54.3			34.1
Approach LOS			B			C			D			C

Intersection Summary			
HCM 2000 Control Delay	21.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		

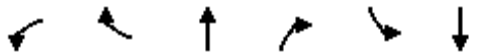
c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	49
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.96
Adj. Flow (vph)	51
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	2
Confl. Bikes (#/hr)	
Heavy Vehicles (%)	4%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

HCM Unsignalized Intersection Capacity Analysis
5: Springbrook Road & FM Main Drive Aisle

11/21/2014



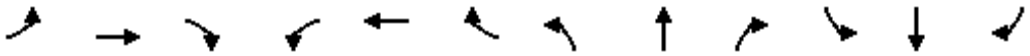
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	312	239	111	0	336
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	332	254	118	0	357
Pedestrians			1			1
Lane Width (ft)			12.0			12.0
Walking Speed (ft/s)			4.0			4.0
Percent Blockage			0			0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			717			401
pX, platoon unblocked	0.94					
vC, conflicting volume	672	314			254	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	621	314			254	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	54			100	
cM capacity (veh/h)	428	728			1323	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	332	372	357
Volume Left	0	0	0
Volume Right	332	118	0
cSH	728	1700	1700
Volume to Capacity	0.46	0.22	0.21
Queue Length 95th (ft)	60	0	0
Control Delay (s)	14.0	0.0	0.0
Lane LOS	B		
Approach Delay (s)	14.0	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	4.4		
Intersection Capacity Utilization	46.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: FM Fuel/US Bank & FM Main Drive Aisle

11/21/2014



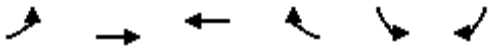
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	3	76	40	127	194	39	99	0	51	0	0	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	83	43	138	211	42	108	0	55	0	0	14

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total (vph)	3	126	391	163	14
Volume Left (vph)	3	0	138	108	0
Volume Right (vph)	0	43	42	55	14
Hadj (s)	0.50	-0.22	0.04	-0.04	-0.53
Departure Headway (s)	5.8	5.1	4.7	5.1	4.9
Degree Utilization, x	0.01	0.18	0.51	0.23	0.02
Capacity (veh/h)	588	665	742	645	637
Control Delay (s)	7.7	8.0	12.5	9.7	8.0
Approach Delay (s)	8.0		12.5	9.7	8.0
Approach LOS	A		B	A	A

Intersection Summary				
Delay	10.9			
Level of Service	B			
Intersection Capacity Utilization	49.2%	ICU Level of Service	A	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
7: FM Main Drive Aisle & FM Right-In Driveway

11/21/2014



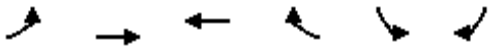
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	0	123	240	0	139	112
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	137	267	0	154	124

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total (vph)	137	267	154	124
Volume Left (vph)	0	0	154	0
Volume Right (vph)	0	0	0	124
Hadj (s)	0.03	0.02	0.50	-0.63
Departure Headway (s)	5.0	4.8	6.0	4.9
Degree Utilization, x	0.19	0.36	0.26	0.17
Capacity (veh/h)	673	710	570	696
Control Delay (s)	9.2	10.5	9.9	7.7
Approach Delay (s)	9.2	10.5	8.9	
Approach LOS	A	B	A	

Intersection Summary			
Delay	9.6		
Level of Service	A		
Intersection Capacity Utilization	30.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
8: FM Main Drive Aisle & FM RIRO Driveway

11/21/2014



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	17	122	111	5	58	98
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	19	139	126	6	66	111

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total (vph)	158	132	177
Volume Left (vph)	19	0	66
Volume Right (vph)	0	6	111
Hadj (s)	0.04	0.01	-0.29
Departure Headway (s)	4.5	4.5	4.3
Degree Utilization, x	0.20	0.16	0.21
Capacity (veh/h)	766	757	792
Control Delay (s)	8.6	8.4	8.4
Approach Delay (s)	8.6	8.4	8.4
Approach LOS	A	A	A

Intersection Summary			
Delay	8.5		
Level of Service	A		
Intersection Capacity Utilization	34.1%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
9: Brutscher Street & FM Main Drive Aisle/Columbia Bank

11/21/2014

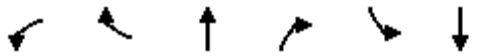
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	225	2	51	4	1	6	15	114	2	5	78	132
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	245	2	55	4	1	7	16	124	2	5	85	143
Pedestrians		1			1							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		4.0			4.0							
Percent Blockage		0			0							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											342	
pX, platoon unblocked												
vC, conflicting volume	332	328	158	383	399	126	229			127		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	332	328	158	383	399	126	229			127		
tC, single (s)	7.1	6.5	6.2	7.3	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.7	4.0	3.3	2.2			2.2		
p0 queue free %	60	100	94	99	100	99	99			100		
cM capacity (veh/h)	607	584	887	494	533	929	1350			1452		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	302	12	16	126	234
Volume Left	245	4	16	0	5
Volume Right	55	7	0	2	143
cSH	645	669	1350	1700	1452
Volume to Capacity	0.47	0.02	0.01	0.07	0.00
Queue Length 95th (ft)	63	1	1	0	0
Control Delay (s)	15.4	10.5	7.7	0.0	0.2
Lane LOS	C	B	A		A
Approach Delay (s)	15.4	10.5	0.9		0.2
Approach LOS	C	B			

Intersection Summary				
Average Delay	7.2			
Intersection Capacity Utilization	46.5%	ICU Level of Service		A
Analysis Period (min)	15			

HCM Signalized Intersection Capacity Analysis
12: Springbrook Road & Hayes Street

11/21/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	55	70	237	23	54	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.97	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1679	1557	1772		1703	1759
Flt Permitted	0.95	1.00	1.00		0.52	1.00
Satd. Flow (perm)	1679	1557	1772		935	1759
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	57	73	247	24	56	266
RTOR Reduction (vph)	0	66	4	0	0	0
Lane Group Flow (vph)	57	7	267	0	56	266
Confl. Peds. (#/hr)	3	4				
Confl. Bikes (#/hr)				1		
Heavy Vehicles (%)	7%	1%	6%	3%	6%	8%
Turn Type	Perm	Perm	NA		pm+pt	NA
Protected Phases			2		1	6
Permitted Phases	8	8			6	
Actuated Green, G (s)	5.9	5.9	33.5		41.1	41.1
Effective Green, g (s)	5.4	5.4	33.0		40.6	40.6
Actuated g/C Ratio	0.10	0.10	0.60		0.74	0.74
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	2.5	2.5	2.5		2.5	2.5
Lane Grp Cap (vph)	164	152	1063		733	1298
v/s Ratio Prot			c0.15		0.00	c0.15
v/s Ratio Perm	c0.03	0.00			0.05	
v/c Ratio	0.35	0.05	0.25		0.08	0.20
Uniform Delay, d1	23.2	22.5	5.2		2.1	2.2
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.9	0.1	0.6		0.0	0.4
Delay (s)	24.1	22.6	5.7		2.2	2.6
Level of Service	C	C	A		A	A
Approach Delay (s)	23.2		5.7			2.5
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay	7.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	33.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
1: Springbrook Road & Highway 99W

11/21/2014

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (vph)	2	108	1294	64	20	156	1340	119	299	143	126	295
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.5	5.5		5.0	5.5	5.5	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00	0.95	1.00		1.00	0.95	1.00	0.97	1.00	1.00	0.97
Frpb, ped/bikes		1.00	1.00	0.98		1.00	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)		1787	3406	1438		1719	3505	1520	3433	1863	1455	3433
Flt Permitted		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (perm)		1787	3406	1438		1719	3505	1520	3433	1863	1455	3433
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	2	110	1320	65	20	159	1367	121	305	146	129	301
RTOR Reduction (vph)	0	0	0	37	0	0	0	63	0	0	114	0
Lane Group Flow (vph)	0	112	1320	28	0	179	1367	58	305	146	15	301
Confl. Peds. (#/hr)								1				
Confl. Bikes (#/hr)				1								
Heavy Vehicles (%)	1%	1%	6%	10%	5%	5%	3%	4%	2%	2%	11%	2%
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases	5	5	2		1	1	6		3	8		7
Permitted Phases				2				6			8	
Actuated Green, G (s)		10.5	43.0	43.0		13.5	46.0	46.0	13.7	12.0	12.0	13.0
Effective Green, g (s)		10.0	42.5	42.5		13.0	45.5	45.5	13.2	11.5	11.5	12.5
Actuated g/C Ratio		0.10	0.42	0.42		0.13	0.46	0.46	0.13	0.12	0.12	0.12
Clearance Time (s)		4.5	5.0	5.0		4.5	5.0	5.0	4.5	4.5	4.5	4.5
Vehicle Extension (s)		2.3	4.2	4.2		2.5	4.2	4.2	2.3	2.3	2.3	2.3
Lane Grp Cap (vph)		178	1447	611		223	1594	691	453	214	167	429
v/s Ratio Prot		0.06	c0.39			0.10	c0.39		c0.09	c0.08		0.09
v/s Ratio Perm				0.02				0.04			0.01	
v/c Ratio		0.63	0.91	0.05		0.80	0.86	0.08	0.67	0.68	0.09	0.70
Uniform Delay, d1		43.2	27.0	16.9		42.3	24.4	15.4	41.3	42.5	39.6	42.0
Progression Factor		1.00	1.00	1.00		0.75	0.59	0.27	1.00	1.00	1.00	1.00
Incremental Delay, d2		5.5	10.3	0.1		13.2	4.4	0.2	3.4	7.5	0.1	4.5
Delay (s)		48.7	37.3	17.0		44.7	18.9	4.3	44.7	50.0	39.7	46.5
Level of Service		D	D	B		D	B	A	D	D	D	D
Approach Delay (s)			37.2				20.6			44.9		
Approach LOS			D				C			D		

Intersection Summary			
HCM 2000 Control Delay	32.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	82.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
1: Springbrook Road & Highway 99W

11/21/2014

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	119	91
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.0	5.0
Lane Util. Factor	1.00	1.00
Frpb, ped/bikes	1.00	0.98
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1727	1518
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1727	1518
Peak-hour factor, PHF	0.98	0.98
Adj. Flow (vph)	121	93
RTOR Reduction (vph)	0	83
Lane Group Flow (vph)	121	10
Confl. Peds. (#/hr)		9
Confl. Bikes (#/hr)		1
Heavy Vehicles (%)	10%	4%
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Actuated Green, G (s)	11.3	11.3
Effective Green, g (s)	10.8	10.8
Actuated g/C Ratio	0.11	0.11
Clearance Time (s)	4.5	4.5
Vehicle Extension (s)	2.3	2.3
Lane Grp Cap (vph)	186	163
v/s Ratio Prot	0.07	
v/s Ratio Perm		0.01
v/c Ratio	0.65	0.06
Uniform Delay, d1	42.8	40.0
Progression Factor	1.00	1.00
Incremental Delay, d2	6.7	0.1
Delay (s)	49.5	40.1
Level of Service	D	D
Approach Delay (s)	46.0	
Approach LOS	D	

Intersection Summary

HCM Unsignalized Intersection Capacity Analysis
2: FM Right-In Driveway & Highway 99W

11/21/2014

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1478	264	0	1655	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	1524	272	0	1706	0	0
Pedestrians					1	
Lane Width (ft)					0.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	478			898		
pX, platoon unblocked			0.65		0.75	0.65
vC, conflicting volume			1525		2093	763
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			730		155	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			574		622	705

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3
Volume Total	762	762	272	569	569	569
Volume Left	0	0	0	0	0	0
Volume Right	0	0	272	0	0	0
cSH	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.45	0.45	0.16	0.33	0.33	0.33
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS						
Approach Delay (s)	0.0			0.0		
Approach LOS						

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	44.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: FM RIRO Driveway & Highway 99W

11/21/2014

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1309	156	0	1674	0	28
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	1349	161	0	1726	0	29
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	885			491		
pX, platoon unblocked			0.69		0.84	0.69
vC, conflicting volume			1350		2213	676
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			608		400	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	96
cM capacity (veh/h)			675		489	752

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	675	675	161	863	863	29
Volume Left	0	0	0	0	0	0
Volume Right	0	0	161	0	0	29
cSH	1700	1700	1700	1700	1700	752
Volume to Capacity	0.40	0.40	0.09	0.51	0.51	0.04
Queue Length 95th (ft)	0	0	0	0	0	3
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	10.0
Lane LOS						A
Approach Delay (s)	0.0			0.0		10.0
Approach LOS						A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	50.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
4: Brutscher Street & Highway 99W

11/21/2014

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	7	24	1239	48	169	1418	51	202	8	146	13	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.5	5.5	5.0	5.5	5.5	5.0	5.0		5.0	5.0
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes		1.00	1.00	0.98	1.00	1.00	0.98	1.00	0.99		1.00	0.99
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.86		1.00	0.87
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00
Satd. Flow (prot)		1805	3406	1462	1752	3471	1582	1752	1529		1805	1568
Flt Permitted		0.95	1.00	1.00	0.95	1.00	1.00	0.72	1.00		0.55	1.00
Satd. Flow (perm)		1805	3406	1462	1752	3471	1582	1324	1529		1036	1568
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	7	25	1291	50	176	1477	53	210	8	152	14	9
RTOR Reduction (vph)	0	0	0	23	0	0	22	0	125	0	0	42
Lane Group Flow (vph)	0	32	1291	27	176	1477	31	210	35	0	14	18
Confl. Peds. (#/hr)				1						1		
Confl. Bikes (#/hr)							1			1		
Heavy Vehicles (%)	0%	0%	6%	8%	3%	4%	0%	3%	8%	5%	0%	7%
Turn Type	Prot	Prot	NA	Perm	Prot	NA	Perm	Perm	NA		Perm	NA
Protected Phases	5	5	2		1	6			8			4
Permitted Phases				2			6	8			4	
Actuated Green, G (s)		8.0	55.0	55.0	12.6	59.6	59.6	18.4	18.4		18.4	18.4
Effective Green, g (s)		7.5	54.5	54.5	12.1	59.1	59.1	17.9	17.9		17.9	17.9
Actuated g/C Ratio		0.08	0.54	0.54	0.12	0.59	0.59	0.18	0.18		0.18	0.18
Clearance Time (s)		4.5	5.0	5.0	4.5	5.0	5.0	4.5	4.5		4.5	4.5
Vehicle Extension (s)		2.3	4.8	4.8	2.3	4.8	4.8	2.5	2.5		2.5	2.5
Lane Grp Cap (vph)		135	1856	796	211	2051	934	236	273		185	280
v/s Ratio Prot		0.02	c0.38		0.10	c0.43			0.02			0.01
v/s Ratio Perm				0.02			0.02	c0.16			0.01	
v/c Ratio		0.24	0.70	0.03	0.83	0.72	0.03	0.89	0.13		0.08	0.06
Uniform Delay, d1		43.6	16.7	10.5	43.0	14.6	8.5	40.1	34.5		34.2	34.1
Progression Factor		0.75	0.62	1.28	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2		0.3	1.3	0.0	23.1	2.2	0.1	30.6	0.2		0.1	0.1
Delay (s)		33.0	11.6	13.5	66.1	16.8	8.6	70.7	34.7		34.3	34.2
Level of Service		C	B	B	E	B	A	E	C		C	C
Approach Delay (s)			12.2			21.6			55.1			34.2
Approach LOS			B			C			E			C

Intersection Summary			
HCM 2000 Control Delay	21.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	74.6%	ICU Level of Service	D
Analysis Period (min)	15		

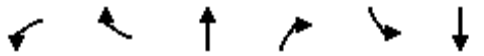
c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	49
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.96
Adj. Flow (vph)	51
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	2
Confl. Bikes (#/hr)	
Heavy Vehicles (%)	4%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

HCM Unsignalized Intersection Capacity Analysis
5: Springbrook Road & FM Main Drive Aisle

11/21/2014



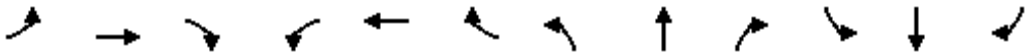
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	326	238	115	0	334
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	347	253	122	0	355
Pedestrians			1			1
Lane Width (ft)			12.0			12.0
Walking Speed (ft/s)			4.0			4.0
Percent Blockage			0			0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			717			401
pX, platoon unblocked	0.94					
vC, conflicting volume	671	315			253	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	620	315			253	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	52			100	
cM capacity (veh/h)	428	727			1324	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	347	376	355
Volume Left	0	0	0
Volume Right	347	122	0
cSH	727	1700	1700
Volume to Capacity	0.48	0.22	0.21
Queue Length 95th (ft)	65	0	0
Control Delay (s)	14.4	0.0	0.0
Lane LOS	B		
Approach Delay (s)	14.4	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	4.6		
Intersection Capacity Utilization	47.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: FM Fuel/US Bank & FM Main Drive Aisle

11/21/2014



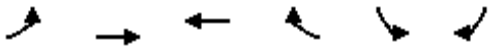
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	3	76	44	155	194	39	113	0	69	0	0	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	83	48	168	211	42	123	0	75	0	0	14

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total (vph)	3	130	422	198	14
Volume Left (vph)	3	0	168	123	0
Volume Right (vph)	0	48	42	75	14
Hadj (s)	0.50	-0.24	0.05	-0.07	-0.53
Departure Headway (s)	6.0	5.3	4.8	5.2	5.1
Degree Utilization, x	0.01	0.19	0.57	0.29	0.02
Capacity (veh/h)	559	641	722	626	603
Control Delay (s)	7.9	8.3	14.0	10.3	8.2
Approach Delay (s)	8.3		14.0	10.3	8.2
Approach LOS	A		B	B	A

Intersection Summary			
Delay	11.9		
Level of Service	B		
Intersection Capacity Utilization	52.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
7: FM Main Drive Aisle & FM Right-In Driveway

11/21/2014



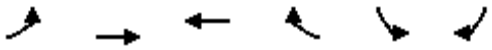
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	0	141	255	0	139	125
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	157	283	0	154	139

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total (vph)	157	283	154	139
Volume Left (vph)	0	0	154	0
Volume Right (vph)	0	0	0	139
Hadj (s)	0.03	0.02	0.50	-0.63
Departure Headway (s)	5.1	4.9	6.1	5.0
Degree Utilization, x	0.22	0.39	0.26	0.19
Capacity (veh/h)	664	700	560	681
Control Delay (s)	9.5	10.9	10.1	7.9
Approach Delay (s)	9.5	10.9	9.1	
Approach LOS	A	B	A	

Intersection Summary			
Delay	9.9		
Level of Service	A		
Intersection Capacity Utilization	31.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
8: FM Main Drive Aisle & FM RIRO Driveway

11/21/2014



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	23	128	119	5	58	98
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	26	145	135	6	66	111

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total (vph)	172	141	177
Volume Left (vph)	26	0	66
Volume Right (vph)	0	6	111
Hadj (s)	0.04	0.01	-0.29
Departure Headway (s)	4.5	4.5	4.3
Degree Utilization, x	0.22	0.18	0.21
Capacity (veh/h)	763	753	780
Control Delay (s)	8.8	8.5	8.5
Approach Delay (s)	8.8	8.5	8.5
Approach LOS	A	A	A

Intersection Summary			
Delay	8.6		
Level of Service	A		
Intersection Capacity Utilization	38.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
9: Brutscher Street & FM Main Drive Aisle/Columbia Bank

11/21/2014

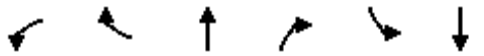
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	225	2	57	4	1	6	15	114	2	5	77	140
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	245	2	62	4	1	7	16	124	2	5	84	152
Pedestrians		1			1							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		4.0			4.0							
Percent Blockage		0			0							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											342	
pX, platoon unblocked												
vC, conflicting volume	335	331	161	392	406	126	237			127		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	335	331	161	392	406	126	237			127		
tC, single (s)	7.1	6.5	6.2	7.3	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.7	4.0	3.3	2.2			2.2		
p0 queue free %	60	100	93	99	100	99	99			100		
cM capacity (veh/h)	604	581	883	482	528	929	1341			1452		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	309	12	16	126	241
Volume Left	245	4	16	0	5
Volume Right	62	7	0	2	152
cSH	645	661	1341	1700	1452
Volume to Capacity	0.48	0.02	0.01	0.07	0.00
Queue Length 95th (ft)	65	1	1	0	0
Control Delay (s)	15.6	10.5	7.7	0.0	0.2
Lane LOS	C	B	A		A
Approach Delay (s)	15.6	10.5	0.9		0.2
Approach LOS	C	B			

Intersection Summary				
Average Delay	7.3			
Intersection Capacity Utilization	47.3%	ICU Level of Service		A
Analysis Period (min)	15			

HCM Signalized Intersection Capacity Analysis
12: Springbrook Road & Hayes Street

11/21/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	59	71	239	23	54	253
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.97	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1679	1557	1772		1703	1759
Flt Permitted	0.95	1.00	1.00		0.52	1.00
Satd. Flow (perm)	1679	1557	1772		933	1759
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	61	74	249	24	56	264
RTOR Reduction (vph)	0	67	4	0	0	0
Lane Group Flow (vph)	61	7	269	0	56	264
Confl. Peds. (#/hr)	3	4				
Confl. Bikes (#/hr)				1		
Heavy Vehicles (%)	7%	1%	6%	3%	6%	8%
Turn Type	Perm	Perm	NA		pm+pt	NA
Protected Phases			2		1	6
Permitted Phases	8	8			6	
Actuated Green, G (s)	6.0	6.0	33.4		41.0	41.0
Effective Green, g (s)	5.5	5.5	32.9		40.5	40.5
Actuated g/C Ratio	0.10	0.10	0.60		0.74	0.74
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	2.5	2.5	2.5		2.5	2.5
Lane Grp Cap (vph)	167	155	1059		730	1295
v/s Ratio Prot			c0.15		0.00	c0.15
v/s Ratio Perm	c0.04	0.00			0.05	
v/c Ratio	0.37	0.05	0.25		0.08	0.20
Uniform Delay, d1	23.1	22.4	5.2		2.2	2.2
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	1.0	0.1	0.6		0.0	0.4
Delay (s)	24.1	22.5	5.8		2.2	2.6
Level of Service	C	C	A		A	A
Approach Delay (s)	23.2		5.8			2.5
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay	7.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	33.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
1: Springbrook Road & Highway 99W

11/24/2014

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (vph)	4	124	1071	121	11	462	1227	297	439	252	252	367
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.5	5.5		5.0	5.5	5.5	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00	0.95	1.00		0.97	0.95	1.00	0.97	1.00	1.00	0.97
Frpb, ped/bikes		1.00	1.00	0.99		1.00	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)		1787	3406	1450		3335	3505	1519	3433	1863	1455	3433
Flt Permitted		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (perm)		1787	3406	1450		3335	3505	1519	3433	1863	1455	3433
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	4	127	1093	123	11	471	1252	303	448	257	257	374
RTOR Reduction (vph)	0	0	0	66	0	0	0	155	0	0	213	0
Lane Group Flow (vph)	0	131	1093	57	0	482	1252	148	448	257	44	374
Confl. Peds. (#/hr)								1				
Confl. Bikes (#/hr)				1								
Heavy Vehicles (%)	1%	1%	6%	10%	5%	5%	3%	4%	2%	2%	11%	2%
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases	5	5	2		1	1	6		3	8		7
Permitted Phases				2				6			8	
Actuated Green, G (s)		12.7	41.7	41.7		19.0	48.0	48.0	22.7	21.1	21.1	19.7
Effective Green, g (s)		12.2	41.2	41.2		18.5	47.5	47.5	22.2	20.6	20.6	19.2
Actuated g/C Ratio		0.10	0.34	0.34		0.15	0.40	0.40	0.18	0.17	0.17	0.16
Clearance Time (s)		4.5	5.0	5.0		4.5	5.0	5.0	4.5	4.5	4.5	4.5
Vehicle Extension (s)		2.3	4.2	4.2		2.5	4.2	4.2	2.3	2.3	2.3	2.3
Lane Grp Cap (vph)		181	1169	497		514	1387	601	635	319	249	549
v/s Ratio Prot		0.07	c0.32			0.14	c0.36		c0.13	c0.14		0.11
v/s Ratio Perm				0.04				0.10			0.03	
v/c Ratio		0.72	0.93	0.12		0.94	0.90	0.25	0.71	0.81	0.18	0.68
Uniform Delay, d1		52.3	38.1	26.9		50.2	34.1	24.3	45.8	47.8	42.5	47.5
Progression Factor		1.00	1.00	1.00		0.91	0.87	0.91	1.00	1.00	1.00	1.00
Incremental Delay, d2		12.1	14.7	0.5		18.5	6.8	0.6	3.2	13.2	0.2	3.0
Delay (s)		64.4	52.8	27.4		64.2	36.5	22.8	49.0	61.0	42.7	50.5
Level of Service		E	D	C		E	D	C	D	E	D	D
Approach Delay (s)			51.6				41.0			50.5		
Approach LOS			D				D			D		

Intersection Summary			
HCM 2000 Control Delay	47.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	86.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
1: Springbrook Road & Highway 99W

11/24/2014

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	190	126
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.0	5.0
Lane Util. Factor	1.00	1.00
Frpb, ped/bikes	1.00	0.98
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1727	1516
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1727	1516
Peak-hour factor, PHF	0.98	0.98
Adj. Flow (vph)	194	129
RTOR Reduction (vph)	0	110
Lane Group Flow (vph)	194	19
Confl. Peds. (#/hr)		9
Confl. Bikes (#/hr)		1
Heavy Vehicles (%)	10%	4%
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Actuated Green, G (s)	18.1	18.1
Effective Green, g (s)	17.6	17.6
Actuated g/C Ratio	0.15	0.15
Clearance Time (s)	4.5	4.5
Vehicle Extension (s)	2.3	2.3
Lane Grp Cap (vph)	253	222
v/s Ratio Prot	0.11	
v/s Ratio Perm		0.01
v/c Ratio	0.77	0.09
Uniform Delay, d1	49.2	44.2
Progression Factor	1.00	1.00
Incremental Delay, d2	12.2	0.1
Delay (s)	61.4	44.3
Level of Service	E	D
Approach Delay (s)	52.4	
Approach LOS	D	

Intersection Summary

HCM Unsignalized Intersection Capacity Analysis
2: FM Right-In Driveway & Highway 99W

11/24/2014

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1484	230	0	2025	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	1530	237	0	2088	0	0
Pedestrians					1	
Lane Width (ft)					0.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	478			898		
pX, platoon unblocked			0.70		0.70	0.70
vC, conflicting volume			1531		2053	766
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			906		1650	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			533		64	761

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	WB 4
Volume Total	765	765	237	522	522	522	522
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	237	0	0	0	0
cSH	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.45	0.45	0.14	0.31	0.31	0.31	0.31
Queue Length 95th (ft)	0	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS							
Approach Delay (s)	0.0			0.0			
Approach LOS							

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	44.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: FM RIRO Driveway & Highway 99W

11/24/2014

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1334	138	0	2013	0	28
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	1375	142	0	2075	0	29
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	885			491		
pX, platoon unblocked			0.73		0.73	0.73
vC, conflicting volume			1376		2414	689
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			773		524	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	96
cM capacity (veh/h)			620		355	795

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	688	688	142	1038	1038	29
Volume Left	0	0	0	0	0	0
Volume Right	0	0	142	0	0	29
cSH	1700	1700	1700	1700	1700	795
Volume to Capacity	0.40	0.40	0.08	0.61	0.61	0.04
Queue Length 95th (ft)	0	0	0	0	0	3
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.7
Lane LOS						A
Approach Delay (s)	0.0			0.0		9.7
Approach LOS						A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	59.4%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
4: Brutscher Street & Highway 99W

11/24/2014

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	6	20	1267	75	254	1709	42	215	13	116	14	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.5	5.5	5.0	5.5	5.5	5.0	5.0		5.0	5.0
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes		1.00	1.00	0.98	1.00	1.00	0.98	1.00	0.99		1.00	0.99
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Frt		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.87		1.00	0.88
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00
Satd. Flow (prot)		1805	3406	1462	1752	3471	1582	1752	1542		1805	1588
Flt Permitted		0.95	1.00	1.00	0.95	1.00	1.00	0.71	1.00		0.59	1.00
Satd. Flow (perm)		1805	3406	1462	1752	3471	1582	1309	1542		1130	1588
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	6	21	1320	78	265	1780	44	224	14	121	15	17
RTOR Reduction (vph)	0	0	0	40	0	0	16	0	96	0	0	45
Lane Group Flow (vph)	0	27	1320	38	265	1780	28	224	39	0	15	28
Confl. Peds. (#/hr)				1						1		
Confl. Bikes (#/hr)							1			1		
Heavy Vehicles (%)	0%	0%	6%	8%	3%	4%	0%	3%	8%	5%	0%	7%
Turn Type	Prot	Prot	NA	Perm	Prot	NA	Perm	Perm	NA		Perm	NA
Protected Phases	5	5	2		1	6			8			4
Permitted Phases				2			6	8			4	
Actuated Green, G (s)		3.7	59.6	59.6	21.6	77.5	77.5	24.8	24.8		24.8	24.8
Effective Green, g (s)		3.2	59.1	59.1	21.1	77.0	77.0	24.3	24.3		24.3	24.3
Actuated g/C Ratio		0.03	0.49	0.49	0.18	0.64	0.64	0.20	0.20		0.20	0.20
Clearance Time (s)		4.5	5.0	5.0	4.5	5.0	5.0	4.5	4.5		4.5	4.5
Vehicle Extension (s)		2.3	4.8	4.8	2.3	4.8	4.8	2.5	2.5		2.5	2.5
Lane Grp Cap (vph)		48	1677	720	308	2227	1015	265	312		228	321
v/s Ratio Prot		0.01	0.39		c0.15	c0.51			0.02			0.02
v/s Ratio Perm				0.03			0.02	c0.17			0.01	
v/c Ratio		0.56	0.79	0.05	0.86	0.80	0.03	0.85	0.12		0.07	0.09
Uniform Delay, d1		57.7	25.2	15.9	48.0	15.8	7.8	46.0	39.1		38.7	38.9
Progression Factor		0.68	1.48	4.72	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2		6.7	2.4	0.1	20.6	3.1	0.1	20.9	0.1		0.1	0.1
Delay (s)		46.0	39.7	75.0	68.6	18.9	7.9	66.9	39.3		38.8	38.9
Level of Service		D	D	E	E	B	A	E	D		D	D
Approach Delay (s)			41.7			25.0			56.5			38.9
Approach LOS			D			C			E			D

Intersection Summary			
HCM 2000 Control Delay	34.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	54
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.96
Adj. Flow (vph)	56
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	2
Confl. Bikes (#/hr)	
Heavy Vehicles (%)	4%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

HCM Unsignalized Intersection Capacity Analysis
5: Springbrook Road & FM Main Drive Aisle

11/24/2014

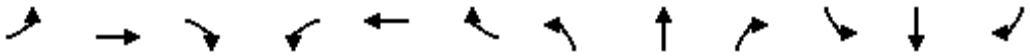
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	363	572	117	0	778
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	386	609	124	0	828
Pedestrians			1			1
Lane Width (ft)			12.0			12.0
Walking Speed (ft/s)			4.0			4.0
Percent Blockage			0			0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			717			401
pX, platoon unblocked	0.75	0.75			0.75	
vC, conflicting volume	1086	672			609	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	945	391			306	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	15			100	
cM capacity (veh/h)	197	456			945	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	386	733	414	414
Volume Left	0	0	0	0
Volume Right	386	124	0	0
cSH	456	1700	1700	1700
Volume to Capacity	0.85	0.43	0.24	0.24
Queue Length 95th (ft)	211	0	0	0
Control Delay (s)	43.3	0.0	0.0	0.0
Lane LOS	E			
Approach Delay (s)	43.3	0.0	0.0	
Approach LOS	E			

Intersection Summary			
Average Delay	8.6		
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: FM Fuel/US Bank & FM Main Drive Aisle

11/24/2014



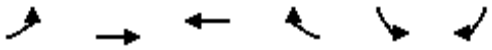
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	20	62	47	175	159	65	149	5	64	15	5	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	22	67	51	190	173	71	162	5	70	16	5	27

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total (vph)	22	118	434	237	49
Volume Left (vph)	22	0	190	162	16
Volume Right (vph)	0	51	71	70	27
Hadj (s)	0.50	-0.28	0.02	-0.01	-0.19
Departure Headway (s)	6.4	5.6	5.1	5.5	5.7
Degree Utilization, x	0.04	0.18	0.61	0.36	0.08
Capacity (veh/h)	522	598	685	602	547
Control Delay (s)	8.4	8.6	15.7	11.5	9.1
Approach Delay (s)	8.6		15.7	11.5	9.1
Approach LOS	A		C	B	A

Intersection Summary				
Delay	13.0			
Level of Service	B			
Intersection Capacity Utilization	55.4%	ICU Level of Service		B
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
7: FM Main Drive Aisle & FM Right-In Driveway

11/24/2014



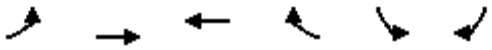
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	0	149	262	0	105	125
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	166	291	0	117	139

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total (vph)	166	291	117	139
Volume Left (vph)	0	0	117	0
Volume Right (vph)	0	0	0	139
Hadj (s)	0.03	0.02	0.50	-0.63
Departure Headway (s)	5.0	4.8	6.1	5.0
Degree Utilization, x	0.23	0.39	0.20	0.19
Capacity (veh/h)	679	715	555	674
Control Delay (s)	9.5	10.8	9.4	8.0
Approach Delay (s)	9.5	10.8	8.6	
Approach LOS	A	B	A	

Intersection Summary			
Delay	9.7		
Level of Service	A		
Intersection Capacity Utilization	31.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
8: FM Main Drive Aisle & FM RIRO Driveway

11/24/2014



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	23	127	155	5	42	96
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	26	144	176	6	48	109

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total (vph)	170	182	157
Volume Left (vph)	26	0	48
Volume Right (vph)	0	6	109
Hadj (s)	0.05	0.01	-0.34
Departure Headway (s)	4.5	4.5	4.4
Degree Utilization, x	0.21	0.23	0.19
Capacity (veh/h)	764	765	768
Control Delay (s)	8.7	8.8	8.4
Approach Delay (s)	8.7	8.8	8.4
Approach LOS	A	A	A

Intersection Summary			
Delay	8.6		
Level of Service	A		
Intersection Capacity Utilization	40.1%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
9: Brutscher Street & FM Main Drive Aisle/Columbia Bank

11/24/2014

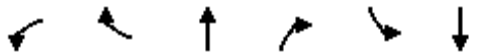
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	187	4	56	8	14	27	16	121	8	38	143	159
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	203	4	61	9	15	29	17	132	9	41	155	173
Pedestrians		1			1							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		4.0			4.0							
Percent Blockage		0			0							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											342	
pX, platoon unblocked												
vC, conflicting volume	529	501	243	559	584	137	329			141		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	529	501	243	559	584	137	329			141		
tC, single (s)	7.1	6.5	6.2	7.3	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.7	4.0	3.3	2.2			2.2		
p0 queue free %	51	99	92	98	96	97	99			97		
cM capacity (veh/h)	418	454	795	360	408	916	1241			1434		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	268	53	17	140	370
Volume Left	203	9	17	0	41
Volume Right	61	29	0	9	173
cSH	469	569	1241	1700	1434
Volume to Capacity	0.57	0.09	0.01	0.08	0.03
Queue Length 95th (ft)	88	8	1	0	2
Control Delay (s)	22.4	12.0	7.9	0.0	1.1
Lane LOS	C	B	A		A
Approach Delay (s)	22.4	12.0	0.9		1.1
Approach LOS	C	B			

Intersection Summary				
Average Delay	8.5			
Intersection Capacity Utilization	58.4%	ICU Level of Service		B
Analysis Period (min)	15			

HCM Signalized Intersection Capacity Analysis
12: Springbrook Road & Hayes Street

11/24/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	93	84	593	39	70	688
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.97	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1679	1557	1778		1703	1759
Flt Permitted	0.95	1.00	1.00		0.26	1.00
Satd. Flow (perm)	1679	1557	1778		465	1759
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	97	88	618	41	73	717
RTOR Reduction (vph)	0	77	3	0	0	0
Lane Group Flow (vph)	97	11	656	0	73	717
Confl. Peds. (#/hr)	3	4				
Confl. Bikes (#/hr)				1		
Heavy Vehicles (%)	7%	1%	6%	3%	6%	8%
Turn Type	Perm	Perm	NA		pm+pt	NA
Protected Phases			2		1	6
Permitted Phases	8	8			6	
Actuated Green, G (s)	7.1	7.1	32.1		39.9	39.9
Effective Green, g (s)	6.6	6.6	31.6		39.4	39.4
Actuated g/C Ratio	0.12	0.12	0.57		0.72	0.72
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	2.5	2.5	2.5		2.5	2.5
Lane Grp Cap (vph)	201	186	1021		407	1260
v/s Ratio Prot			c0.37		0.01	c0.41
v/s Ratio Perm	c0.06	0.01			0.12	
v/c Ratio	0.48	0.06	0.64		0.18	0.57
Uniform Delay, d1	22.6	21.4	7.9		4.2	3.7
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	1.3	0.1	3.1		0.2	1.9
Delay (s)	23.9	21.5	11.0		4.3	5.6
Level of Service	C	C	B		A	A
Approach Delay (s)	22.8		11.0			5.5
Approach LOS	C		B			A

Intersection Summary			
HCM 2000 Control Delay	9.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	55.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

APPENDIX I

SIMTRAFFIC QUEUING REPORTS

Queuing and Blocking Report
2015 Pre-Development Conditions - Weekday PM Peak Hour

11/21/2014

Intersection: 1: Springbrook Road & Highway 99W

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	UL	T	T	R	UL	T	T	R	L	L	T	R
Maximum Queue (ft)	217	377	393	78	213	462	468	394	182	262	636	259
Average Queue (ft)	112	287	259	16	141	371	373	205	138	189	523	178
95th Queue (ft)	238	475	482	142	302	572	568	529	229	323	1062	356
Link Distance (ft)		742	742		394	394	394				1026	
Upstream Blk Time (%)					0	12	10	1			5	
Queuing Penalty (veh)					0	79	66	0			22	
Storage Bay Dist (ft)	225			240				265	190	190		190
Storage Blk Time (%)	3	18	14				20		4	6	53	5
Queuing Penalty (veh)	15	19	9				55		13	20	268	28

Intersection: 1: Springbrook Road & Highway 99W

Movement	SB	SB	SB	SB
Directions Served	L	L	T	R
Maximum Queue (ft)	225	285	293	138
Average Queue (ft)	188	245	230	76
95th Queue (ft)	255	350	489	175
Link Distance (ft)			505	
Upstream Blk Time (%)			9	
Queuing Penalty (veh)			0	
Storage Bay Dist (ft)	125	125		125
Storage Blk Time (%)	23	61	24	7
Queuing Penalty (veh)	63	167	110	35

Intersection: 4: Brutscher Street & Highway 99W

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	UL	T	T	R	UL	T	T	R	L	TR	L	TR
Maximum Queue (ft)	44	351	398	214	346	700	663	107	305	132	26	69
Average Queue (ft)	24	201	221	60	303	529	487	24	242	67	11	34
95th Queue (ft)	56	414	447	226	422	1020	994	137	365	181	32	75
Link Distance (ft)		444	444			929	929			621		352
Upstream Blk Time (%)		0	1			19	9					
Queuing Penalty (veh)		0	8			0	0					
Storage Bay Dist (ft)	215			185	250			70	350		75	
Storage Blk Time (%)		10	16		49	8	22		1	0		1
Queuing Penalty (veh)		3	12		403	19	9		1	1		0

Intersection: 7: FM Main Drive Aisle & FM Right-In Driveway

Movement	EB	WB	SB	SB
Directions Served	T	T	L	R
Maximum Queue (ft)	54	105	40	52
Average Queue (ft)	38	59	24	33
95th Queue (ft)	57	118	50	61
Link Distance (ft)	54	370		269
Upstream Blk Time (%)	1			
Queuing Penalty (veh)	1			
Storage Bay Dist (ft)			80	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: FM Main Drive Aisle & FM RIRO Driveway

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	50	94	40
Average Queue (ft)	39	57	24
95th Queue (ft)	56	105	49
Link Distance (ft)	370	197	264
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 1425

Queuing and Blocking Report
2015 Post-Development Conditions - Weekday PM Peak Hour

11/26/2014

Intersection: 1: Springbrook Road & Highway 99W

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	UL	T	T	R	UL	T	T	R	L	L	T	R
Maximum Queue (ft)	302	388	439	78	240	381	384	158	213	290	842	290
Average Queue (ft)	155	306	316	16	172	304	312	78	143	246	689	208
95th Queue (ft)	331	465	527	142	366	528	533	336	278	392	1041	369
Link Distance (ft)		742	742		394	394	394				1026	
Upstream Blk Time (%)					9	7	6	0			6	
Queuing Penalty (veh)					61	43	39	0			27	
Storage Bay Dist (ft)	225			240				265	190	190		190
Storage Blk Time (%)	4	20	17				14		12	17	69	7
Queuing Penalty (veh)	22	21	11				39		42	62	354	41

Intersection: 1: Springbrook Road & Highway 99W

Movement	SB	SB	SB	SB
Directions Served	L	L	T	R
Maximum Queue (ft)	226	328	458	221
Average Queue (ft)	170	275	294	106
95th Queue (ft)	272	381	526	262
Link Distance (ft)			505	
Upstream Blk Time (%)			6	
Queuing Penalty (veh)			0	
Storage Bay Dist (ft)	125	125		125
Storage Blk Time (%)	16	65	41	6
Queuing Penalty (veh)	44	177	193	33

Intersection: 4: Brutscher Street & Highway 99W

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	UL	T	T	R	UL	T	T	R	L	TR	L	TR
Maximum Queue (ft)	112	459	453	210	320	380	315	12	195	105	15	60
Average Queue (ft)	34	277	292	68	223	215	162	3	138	67	5	40
95th Queue (ft)	161	473	473	255	373	453	372	18	222	123	22	75
Link Distance (ft)		444	444			929	929			621		352
Upstream Blk Time (%)		3	3									
Queuing Penalty (veh)		18	19									
Storage Bay Dist (ft)	215			185	250			70	350		75	
Storage Blk Time (%)		16	23		17	1	13					1
Queuing Penalty (veh)		4	17		140	3	6					0

Queuing and Blocking Report
2015 Post-Development Conditions - Weekday PM Peak Hour

11/26/2014

Intersection: 7: FM Main Drive Aisle & FM Right-In Driveway

Movement	EB	WB	SB	SB
Directions Served	T	T	L	R
Maximum Queue (ft)	52	92	49	58
Average Queue (ft)	39	60	32	34
95th Queue (ft)	59	106	57	73
Link Distance (ft)	54	370		269
Upstream Blk Time (%)	1			
Queuing Penalty (veh)	1			
Storage Bay Dist (ft)			80	
Storage Blk Time (%)			0	0
Queuing Penalty (veh)			0	0

Intersection: 8: FM Main Drive Aisle & FM RIRO Driveway

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	59	65	36
Average Queue (ft)	45	47	26
95th Queue (ft)	66	73	47
Link Distance (ft)	370	197	264
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 1419

Queuing and Blocking Report
2015 Pre-Development Conditions - Saturday Mid-day

11/21/2014

Intersection: 1: Springbrook Road & Highway 99W

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	UL	T	T	R	UL	T	T	R	L	L	T	R
Maximum Queue (ft)	298	543	510	156	358	380	404	157	160	195	209	115
Average Queue (ft)	164	377	362	31	286	223	241	31	112	142	142	61
95th Queue (ft)	328	589	567	206	486	429	451	208	191	215	239	143
Link Distance (ft)		742	742		394	394	394				1026	
Upstream Blk Time (%)					13	2	3	0				
Queuing Penalty (veh)					72	14	14	0				
Storage Bay Dist (ft)	225			240				265	190	190		190
Storage Blk Time (%)	2	21	20				8		2	4	5	0
Queuing Penalty (veh)	11	23	13				9		6	11	22	2

Intersection: 1: Springbrook Road & Highway 99W

Movement	SB	SB	SB	SB
Directions Served	L	L	T	R
Maximum Queue (ft)	199	286	233	90
Average Queue (ft)	113	192	147	51
95th Queue (ft)	250	320	268	101
Link Distance (ft)			505	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	125	125		125
Storage Blk Time (%)	6	38	18	0
Queuing Penalty (veh)	12	80	67	1

Intersection: 4: Brutscher Street & Highway 99W

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	UL	T	T	R	UL	T	T	R	L	TR	L	TR
Maximum Queue (ft)	52	356	379	101	244	373	327	107	200	99	19	42
Average Queue (ft)	20	203	225	26	137	215	189	27	152	59	10	21
95th Queue (ft)	63	402	416	131	287	392	363	139	233	106	24	55
Link Distance (ft)		444	444			929	929			621		352
Upstream Blk Time (%)			0									
Queuing Penalty (veh)			0									
Storage Bay Dist (ft)	215			185	250			70	350		75	
Storage Blk Time (%)		6	10		0	7	20					3
Queuing Penalty (veh)		2	5		3	11	10					0

Queuing and Blocking Report
2015 Pre-Development Conditions - Saturday Mid-day

11/21/2014

Intersection: 7: FM Main Drive Aisle & FM Right-In Driveway

Movement	EB	WB	SB	SB
Directions Served	T	T	L	R
Maximum Queue (ft)	49	123	48	59
Average Queue (ft)	37	68	30	34
95th Queue (ft)	52	123	60	67
Link Distance (ft)	54	370		269
Upstream Blk Time (%)	1			
Queuing Penalty (veh)	1			
Storage Bay Dist (ft)			80	
Storage Blk Time (%)				0
Queuing Penalty (veh)				0

Intersection: 8: FM Main Drive Aisle & FM RIRO Driveway

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	50	65	50
Average Queue (ft)	37	43	28
95th Queue (ft)	53	74	56
Link Distance (ft)	370	197	264
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 389

Queuing and Blocking Report
2015 Post-Development Conditions - Saturday Mid-day

11/21/2014

Intersection: 1: Springbrook Road & Highway 99W

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	UL	T	T	R	UL	T	T	R	L	L	T	R
Maximum Queue (ft)	290	564	605	233	328	394	413	158	182	228	225	196
Average Queue (ft)	162	453	456	62	223	265	282	62	108	152	150	102
95th Queue (ft)	360	716	741	297	408	465	477	299	201	269	297	210
Link Distance (ft)		742	742		394	394	394				1026	
Upstream Blk Time (%)		2	1		3	3	4	0				
Queuing Penalty (veh)		0	0		16	17	23	0				
Storage Bay Dist (ft)	225			240				265	190	190		190
Storage Blk Time (%)		35	32				11		1	5	7	
Queuing Penalty (veh)		38	20				13		3	13	30	

Intersection: 1: Springbrook Road & Highway 99W

Movement	SB	SB	SB	SB
Directions Served	L	L	T	R
Maximum Queue (ft)	187	242	162	67
Average Queue (ft)	123	184	97	44
95th Queue (ft)	243	287	220	85
Link Distance (ft)			505	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	125	125		125
Storage Blk Time (%)	7	38	13	
Queuing Penalty (veh)	15	79	49	

Intersection: 4: Brutscher Street & Highway 99W

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	UL	T	T	R	UL	T	T	R	L	TR	L	TR
Maximum Queue (ft)	43	360	371	87	210	340	307	23	238	136	24	52
Average Queue (ft)	15	189	203	29	132	198	168	10	158	84	9	26
95th Queue (ft)	48	386	405	133	253	371	333	33	266	153	29	62
Link Distance (ft)		444	444			929	929			621		352
Upstream Blk Time (%)			1									
Queuing Penalty (veh)			6									
Storage Bay Dist (ft)	215			185	250			70	350		75	
Storage Blk Time (%)		7	13		6	3	18					1
Queuing Penalty (veh)		2	6		40	6	9					0

Queuing and Blocking Report
2015 Post-Development Conditions - Saturday Mid-day

11/21/2014

Intersection: 7: FM Main Drive Aisle & FM Right-In Driveway

Movement	EB	WB	SB	SB
Directions Served	T	T	L	R
Maximum Queue (ft)	62	76	44	49
Average Queue (ft)	42	54	34	31
95th Queue (ft)	66	83	57	59
Link Distance (ft)	54	370		269
Upstream Blk Time (%)	2			
Queuing Penalty (veh)	2			
Storage Bay Dist (ft)			80	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: FM Main Drive Aisle & FM RIRO Driveway

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	58	53	36
Average Queue (ft)	43	38	19
95th Queue (ft)	71	66	45
Link Distance (ft)	370	197	264
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 389

Queuing and Blocking Report
2017 Post-Development Conditions - Weekday PM Peak Hour

11/26/2014

Intersection: 1: Springbrook Road & Highway 99W

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	UL	T	T	R	UL	L	T	T	R	L	L	T
Maximum Queue (ft)	278	472	442	156	261	295	319	360	78	174	171	178
Average Queue (ft)	179	261	240	31	213	237	203	230	16	116	99	170
95th Queue (ft)	340	494	462	205	376	439	391	438	142	231	221	186
Link Distance (ft)		729	729		392	392	392	392				
Upstream Blk Time (%)					5	15	1	1				
Queuing Penalty (veh)					25	78	3	7				
Storage Bay Dist (ft)	225			240					265	190	190	
Storage Blk Time (%)	8	17	11					4		0	0	2
Queuing Penalty (veh)	41	21	14					13		1	0	13

Intersection: 1: Springbrook Road & Highway 99W

Movement	NB	SB	SB	SB	SB
Directions Served	R	L	L	T	R
Maximum Queue (ft)	186	226	319	397	209
Average Queue (ft)	144	179	265	295	117
95th Queue (ft)	221	280	388	517	306
Link Distance (ft)				503	
Upstream Blk Time (%)				6	
Queuing Penalty (veh)				0	
Storage Bay Dist (ft)	190	125	125		125
Storage Blk Time (%)	5	23	66	44	0
Queuing Penalty (veh)	37	72	209	216	0

Intersection: 4: Brutscher Street & Highway 99W

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	UL	T	T	R	UL	T	T	R	L	TR	L	TR
Maximum Queue (ft)	108	451	460	224	364	837	799	69	326	252	15	51
Average Queue (ft)	30	243	260	62	339	602	538	19	242	96	5	29
95th Queue (ft)	154	495	524	227	411	1094	1094	104	389	310	18	65
Link Distance (ft)		444	444			929	929			621		352
Upstream Blk Time (%)		2	6			15	7					
Queuing Penalty (veh)		16	44			0	0					
Storage Bay Dist (ft)	215			185	250			70	350		75	
Storage Blk Time (%)		16	19		55	12	20	0	10	1		1
Queuing Penalty (veh)		4	14		471	31	9	0	13	2		0

Intersection: 7: FM Main Drive Aisle & FM Right-In Driveway

Movement	EB	WB	SB	SB
Directions Served	T	T	L	R
Maximum Queue (ft)	65	101	49	64
Average Queue (ft)	40	69	27	43
95th Queue (ft)	68	118	55	79
Link Distance (ft)	54	370		269
Upstream Blk Time (%)	2			
Queuing Penalty (veh)	3			
Storage Bay Dist (ft)			80	
Storage Blk Time (%)				0
Queuing Penalty (veh)				0

Intersection: 8: FM Main Drive Aisle & FM RIRO Driveway

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	46	70	40
Average Queue (ft)	38	48	21
95th Queue (ft)	55	74	54
Link Distance (ft)	370	197	264
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 1359

APPENDIX J

TRANSIT BUS LINE SCHEDULES

Newberg Weekdays

Yamhill County Transit Area™

Yamhill County Transit Area
535 NE 5th Street
McMinnville, OR 97128
phone: 503.474.4900 or 503.538.7433
web: www.yctransitarea.org
email: saunderst@co.yamhill.or.us

Fixed Routes – Flag Stops are allowed on Rts. 5&7

How to read this schedule:
Find the stop where you will board the bus.
Read top to bottom to find scheduled departure times at the listed stops.
Read from left to right to find how long it takes to travel between stops.

Place correct fare in farebox; exact fare only – drivers do not carry change.
You may flag down a bus along any city fixed route. Schedules are subject to change without notice. For the most current schedule check the YCTA website.

Holiday Schedule:
YCTA buses do not operate on the following holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, and Christmas Day.

Pets:
Service animals are always welcome. Pets may travel in a pet carrier as long as they present no health or safety risk.

Key:
AM schedule in regular print.
PM schedule in **bold** print**.**

Newberg Foothills Drive, Fixed Route 5 – Weekdays

Naps Thriftway	George Fox (Meridian St)	The Oaks	Senior Center	Main and Columbia	Woodview Village	Naps Thriftway
1	2	3	4	5	6	7
7:30	7:33	7:34	7:39	7:42	7:50	7:55
8:30	8:33	8:34	8:39	8:42	8:50	8:55
9:30	9:33	9:34	9:39	9:42	9:50	9:55
10:30	10:33	10:34	10:39	10:42	10:50	10:55
11:30	11:33	11:34	11:39	11:42	11:50	11:55
12:30	**12:33**	**12:34**	**12:39**	**12:42**	**12:50**	**12:55**
1:30	**1:33**	**1:34**	**1:39**	**1:42**	**1:50**	**1:55**
2:30	**2:33**	**2:34**	**2:39**	**2:42**	**2:50**	**2:55**
3:30	**3:33**	**3:34**	**3:39**	**3:42**	**3:50**	**3:55**
4:30	**4:33**	**4:34**	**4:39**	**4:42**	**4:50**	**4:55**
5:30	**5:33**	**5:34**	**5:39**	**5:42**	**5:50**	**5:55**

Newberg Providence, Fixed Route 7 - Weekdays

Naps Thriftway	Colonial Village	CPRD/FISH (Elliott Rd)	Fred Meyer	PCC	Providence Hospital	Safeway	Naps Thriftway
1	2	3	4	5	6	7	8
7:00	7:04	7:09	7:13	7:15	7:19	7:23	7:29
8:00	8:04	8:09	8:13	8:15	8:19	8:23	8:29
9:00	9:04	9:09	9:13	9:15	9:19	9:23	9:29
11:00	11:04	11:09	11:13	11:15	11:19	11:23	11:29
12:00	**12:04**	**12:09**	**12:13**	**12:15**	**12:19**	**12:23**	**12:29**
1:00	**1:04**	**1:09**	**1:13**	**1:15**	**1:19**	**1:23**	**1:29**
2:00	**2:04**	**2:09**	**2:13**	**2:15**	**2:19**	**2:23**	**2:29**
3:00	**3:04**	**3:09**	**3:13**	**3:15**	**3:19**	**3:23**	**3:29**
4:00	**4:04**	**4:09**	**4:13**	**4:15**	**4:19**	**4:23**	**4:29**
5:00	**5:04**	**5:09**	**5:13**	**5:15**	**5:19**	**5:23**	**5:29**
6:00	**6:04**	**6:09**	**6:13**	**6:15**	**6:19**	**6:23**	**6:29**

McMinnville – 99w

Yamhill County Transit Area™

Yamhill County Transit Area
535 NE 5th Street
McMinnville, OR 97128
phone: 503.474.4900 or 503.538.7433
web: www.yctransitarea.org
email: saunderst@co.yamhill.or.us

Key:
AM schedule in regular print
PM schedule in **bold** print
Please call ahead to request stops at the Dayton RV Park and Providence Hospital in Newberg.

How to read schedule:
Find the stop where you will board the bus.
Read top to bottom to find scheduled departure times at the listed stops.
Read from left to right to find travel time between stops.

Exact fare only – drivers do not carry change.
Schedules are subject to change without notice. For the most current schedule check the YCTA website: www.yctransitarea.org
Holiday Schedule: YCTA buses do not operate on the following holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, and Christmas Day.

McMinnville to Tigard Transit Center, Route 46s – Saturday

Transit Center	99w by Safeway	Lafayette (by Post Office	Dayton (by City Hall)	Dundee (by Fire Dept)	Newberg (by Naps Thriftway)	Newberg (by Walgreens)	Newberg (Brutscher St by Today's Vision)	Sherwood (Langer Dr by Shari's)	Tigard Transit Center
8:00	8:04	8:10	8:17	8:29	8:32	8:34	8:37	8:52	9:08
10:40	10:44	10:50	10:57	11:09	11:12	11:14	11:17	11:32	11:48
2:15	**2:19**	**2:25**	**2:32**	**2:44**	**2:47**	**2:49**	**2:52**	**3:07**	**3:23**
4:55	**4:59**	**5:05**	**5:12**	**5:24**	**5:27**	**5:29**	**5:32**	**5:47**	**6:03**

Tigard Transit Center to McMinnville, Route 46s – Saturday

Tigard Transit Center	Sherwood (Langer Dr by Shari's)	Newberg (by Shari's)	Newberg (by J's Restaurant)	Newberg (by Naps Thriftway)	Dundee (by Women's Club)	Dayton (by City Hall)	Lafayette (by City Hall)	McMinnville Town Center	Transit Center
9:23	9:38	9:51	9:54	10:00	10:05	10:14	10:21	10:30	10:35
12:03	**12:18**	**12:31**	**12:34**	**12:40**	**12:45**	**12:54**	**1:01**	**1:10**	**1:15**
3:38	**3:53**	**4:06**	**4:09**	**4:15**	**4:20**	**4:29**	**4:36**	**4:45**	**4:50**
6:18	**6:33**	**6:46**	**6:49**	**6:55**	**7:00**	**7:09**	**7:16**	**7:25**	**7:30**

McMinnville to Tigard Transit Center, Route 44 – Weekdays

Transit Center	Lafayette Ave & Riverside Dr	Lafayette Ave by Orchards	Lafayette Ave by Redwood Commons	Lafayette Ave & 99w by Mazatlan	Lafayette (by Post Office	Dayton (by City Hall)	Dundee (by Fire Dept)	Newberg (by Naps Thriftway)	Newberg (by Walgreens)	Newberg (Brutscher St by Today's Vision)	Sherwood (Langer Dr by Shari's)	99w & 124th	Tigard Transit Center
5:10	5:11	5:12	5:13	5:14	5:22	5:29	5:41	5:44	5:46	5:49	6:04	6:11	6:22
6:25	6:26	6:27	6:28	6:29	6:37	6:44	6:56	6:59	7:01	7:04	7:19	7:26	7:37
7:25	7:26	7:27	7:28	7:29	7:37	7:44	7:56	7:59	8:01	8:04	8:19	8:24	8:37
10:35	10:36	10:37	10:38	10:39	10:47	10:54	11:06	11:09	11:11	11:14	11:29	11:36	11:47
12:15	**12:16**	**12:17**	**12:18**	**12:19**	**12:27**	**12:34**	**12:46**	**12:49**	**12:51**	**12:54**	**1:09**	**1:14**	**1:27**
1:15	**1:16**	**1:17**	**1:18**	**1:19**	**1:27**	**1:34**	**1:46**	**1:49**	**1:51**	**1:54**	**2:09**	**2:14**	**2:25**
3:20	**3:21**	**3:22**	**3:23**	**3:22**	**3:30**	**3:37**	**3:52**	**3:55**	**3:57**	**4:00**	**4:18**	**4:25**	**4:37**
5:40	**5:40**	**5:41**	**5:41**	**5:42**	**5:50**	**5:57**	**6:12**	**6:15**	**6:17**	**6:20**	**6:32**	**6:39**	**6:51**
6:12	**6:11**	**6:12**	**6:13**	**6:14**	**6:22**	**6:29**	**6:44**	**6:47**	**6:49**	**6:52**	**7:10**	**7:17**	**7:29**

Tigard Transit Center to McMinnville, Route 44 – Weekdays

Tigard Transit Center	99w & 124th	Sherwood (Langer Dr by Shari's)	Newberg (by Shari's)	Newberg (by J's Restaurant)	Newberg (by Naps Thriftway)	Dundee (by Women's Club)	Dayton (by City Hall)	Lafayette (by City Hall)	Lafayette Ave by Safeway	Redwood Commons	Lafayette Ave by Orchards	Lafayette Ave & Riverside Dr	Transit Center
–	-	–	–	–	6:45	6:50	6:59	7:06	7:13	7:14	7:15	7:16	7:20
7:48	7:53	8:03	8:16	8:19	8:25	8:30	8:39	8:46	8:53	8:54	8:55	8:56	9:00
8:48	8:58	9:03	9:16	9:19	9:25	9:30	9:39	9:46	9:53	9:54	9:55	9:56	10:00
11:58	**12:08**	**12:13**	**12:26**	**12:29**	**12:35**	**12:40**	**12:49**	**12:56**	**1:03**	**1:04**	**1:05**	**1:06**	1:10
1:38	**1:48**	**1:53**	**2:06**	**2:09**	**2:24**	**2:32**	**2:44**	**2:51**	**2:58**	**2:59**	**3:00**	**3:01**	3:05
2:38	**2:48**	**2:53**	**3:06**	**3:09**	**3:24**	**3:32**	**3:44**	**3:51**	**3:58**	**3:59**	**4:00**	**4:01**	**4:05**
4:47	**4:57**	**5:04**	**5:17**	**5:20**	**5:26**	**5:32**	**5:41**	**5:48**	**5:55**	**5:56**	**5:57**	**5:58**	**6:02**
6:16	**6:26**	**6:35**	**6:54**	**6:57**	**7:03**	**7:11**	**7:23**	**7:33**	**7:43**	**7:44**	**7:45**	**7:46**	**7:50**
7:01	**7:11**	**7:20**	**7:33**	**7:36**	**7:42**	-	-	-	-	-	-	-	-
7:39	**7:49**	**7:54**	**8:07**	**8:10**	**8:16**	**8:24**	**8:36**	**8:46**	**8:56**	**8:57**	**8:58**	**8:59**	**9:03**

McMinnville to Tigard Transit Center, Express Route 45x – PM Weekdays

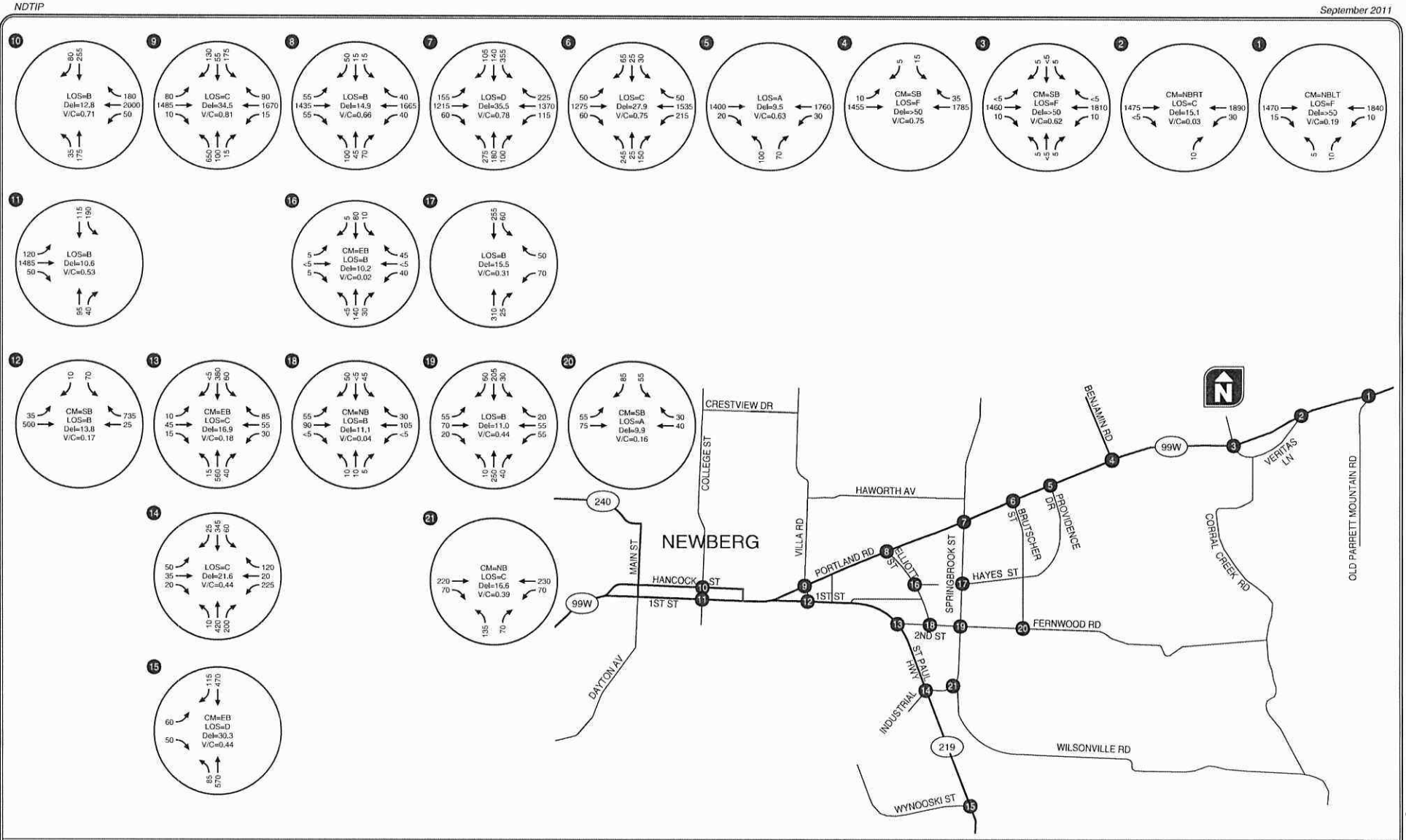
Transit Center	Baker St by Oregon Mutual	Linfield Ave & Blaine St	Willammette Valley Med Ctr	Newberg (by Naps Thriftway)	Sherwood (Langer Dr by Shari's)	99w & 124th	Tigard Transit Center
5:05	**5:07**	**5:12**	**5:14**	**5:30**	**5:50**	**5:57**	**6:06**

Tigard Transit Center to McMinnville, Express Route 45x– AM Weekdays

Tigard Transit Center	99w & 124th	Sherwood (Langer Dr by Shari's)	Newberg (by Naps Thriftway)	Willammette Valley Med Ctr	Linfield Ave & Blaine St	Baker St by Oregon Mutual	Transit Center
6:42	6:56	6:58	7:20	7:43	7:45	7:48	7:50

APPENDIX K

NEWBERG DUNDEE BYPASS PROJECT VOLUMES

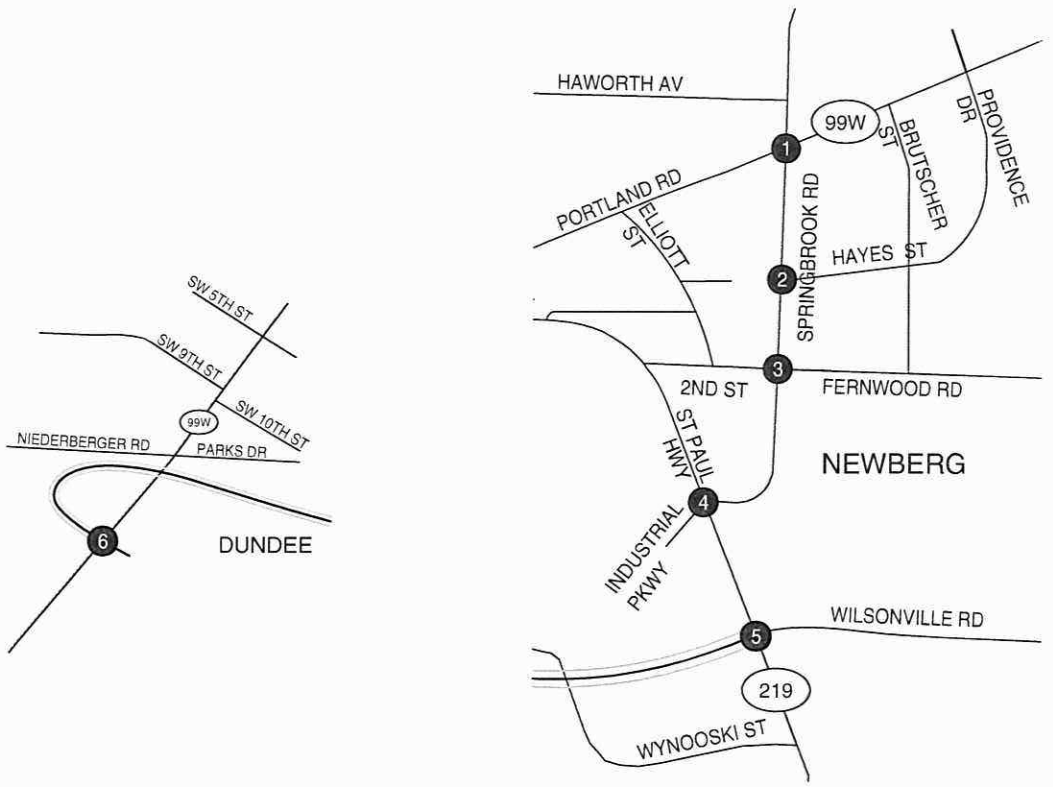


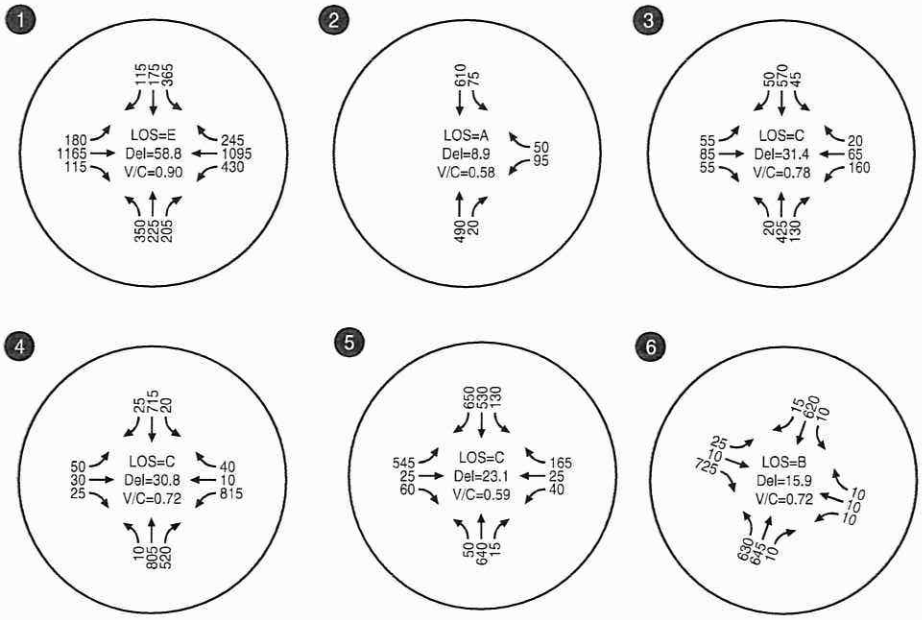
2011 EXISTING TRAFFIC CONDITIONS NEWBERG, OREGON

FIGURE **3A**

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING / PLANNING

H:\proj\file\8372\dv\dvgn\2011 Figs For Trans Tech Report\8372_2016_2035_IV.dwg Sep 16, 2011 - 8:31am - pnichols, Ex-Newberg





LEGEND

LOS = INTERSECTION LEVEL OF SERVICE

Del = INTERSECTION AVERAGE CONTROL DELAY

V/C = CRITICAL VOLUME-TO-CAPACITY RATIO

YEAR 2016 PHASE 1 SCENARIO
DESIGN HOUR TRAFFIC CONDITIONS
NEWBERG, OREGON

FIGURE 7

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION PLANNING / TRAFFIC ENGINEERING

H:\projfile\9372 - Newberg-Dundee Bypass\2012 July Analysis TST\dwg\9372_Fig_2012_July.dwg Jul 25, 2012 - 11:39am - darguea Layout Tab: 01