

## Safety

 Assessment Report

Cheyenne Metropolitan Planning Organization (MPO) Prioritizing Hazardous Locations/Safety Audits

Contract \# 187396
April 20 oro

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## A Statement of Philosophy

The efficient and responsible investment of resources in addressing safety problems is a difficult task. Since crashes occur on all highways in use, it is inappropriate to say of any highway that it is safe. However, it is correct to say that highways can be built to be safer or less safe. Road safety is a matter of degree. When making decisions effecting road safety it is critical to understand that expenditure of limited available funds on improvements in places where it prevents few injuries and saves few lives can mean that injuries will occur and lives will be lost by not spending them in places where more accidents could have been prevented ${ }^{1}$. It is Cheyenne Metropolitan Planning Organization's (CMPO) objective to maximize accident reduction within the limitations of available budgets by making road safety improvements at the intersections where it does the most good or prevents the most accidents.

## Objectives and Scope

The primary intent of this project is to assist Cheyenne MPO with providing the highest level of safety possible with resources available using state of the art methodology in crash analysis. The study identifies opportunities for cost-effective reduction of frequency and severity of crashes at intersections in the Cheyenne MPO area through data-driven approach. The study period covered the accident history from 1/01/2002 through 12/31/2007 and includes the following elements:

- Using Cheyenne MPO crash database segregate intersections as follows:

Number of through lanes
Number of legs
Type of traffic control
Divided/undivided

- Establish diagnostic menus to conduct pattern recognition analysis.
- Conduct pattern recognition analysis for each intersection category.
- Establish composite ranking criteria reflecting the strength of observed patterns, frequency and severity of crashes and susceptibility to correction.
- Conduct field visits and develop preliminary scopes of work for the top 20 intersections with high potential for accident reduction.

[^0]- Develop preliminary conceptual level cost estimates for each location and estimate accident reduction associated with recommended improvements for each of the selected intersections.
- Conduct life cycle benefit/cost analysis for each of the proposed improvements.


## Pattern Recognition Analysis - Analytical Framework and Its Application

In the course of in-depth project-level safety studies of hundreds of intersections, a methodology was developed to conduct diagnostic analysis of safety problems for different classes of intersections in various environments. Direct diagnostics methods and a pattern recognition algorithm are described by Kononov ${ }^{2}$ and Kononov and Janson ${ }^{3}$.

Because traffic accidents can be viewed as random Bernoulli trials, it is possible to detect deviations from the random statistical process by computing the observed cumulative probability for each of the normative parameters, assuming that the following holds true:

- There are only two outcomes of each trial or observation; an accident of specific type has or has not occurred;
- The probability of success is the same for each trial, meaning that the probability of observing a specific accident type does not change from crash to crash.
- The trials are independent: each accident is completely independent from the previous or the following one; and
- There are a finite number of trials.

Binomial Cumulative Probability can be computed as follows:

$$
P\left(X \leq N_{a i}, N_{t i} ; P_{i}\right)=\sum_{i=0}^{N_{a i}} \frac{N_{t t}!}{\left(N_{t i}-i\right)!i!} P_{i}^{i}\left(1-P_{i}\right)^{N_{t i-1}}
$$

Where:
$\mathrm{Nai}_{\mathrm{ai}}$ - Number of observed accidents of a specific type during study period (for instance broadsides)
$\mathrm{N}_{\mathrm{ti}}$ - Total number of observed accidents in the study period
$P_{i}$ - Bernoulli probability of observing a specific accident type during the crash (developed as an average percentage from large dataset representing safety performance of a specific intersection type)

[^1]The following example illustrates how to apply pattern recognition analysis:
Location: Dell Range and Ridge
Total observed number of crashes over the study period $\mathrm{N}_{\mathrm{ti}}=93$
Number of observed Approach Turn (Left Turn Crashes) $\mathrm{N}_{\mathrm{ai}}=30$
Probability of observing Approach Turn at a 4 leg, 4-lane, divided, signalized intersection $\mathrm{P}_{\mathrm{i}}=.194$
$P(X \leq 30,93 ; 0.194)=0.99$
Cumulative Binomial Probability of 99\% of observing 30 approach turn crashes out of 94 total accidents suggests that it may be abnormal and reflects a potential for safety improvements at this location.

Detection of accident patterns at an intersection suggests a presence of an element or elements in the roadway environment that triggered a deviation from a random statistical process in the direction of reduced safety. Identification of such an element always provides a critical clue to accident causality during the field visit. In many cases, the expected or normal proportion of accident characteristics is counterintuitive, which further emphasizes the need for the creation of a framework of diagnostic norms for various types of intersections. Following the diagnostic phase we developed appropriate counter-measures based on the nature and magnitude of the safety problems. The cost of proposed improvements was estimated and compared with the benefits of accident reductions in the life-cycle framework. This approach was applied to the top 20 intersections in the Cheyenne MPO planning area exhibiting highest crash frequency and severity regardless of exposure.

## Safety Performance Functions (SPF) as a Frame or Reference

Safety Performance Functions (SPF) calibrated for intersections relate number of expected accidents per year for a specific intersection type with Annual Average Daily Traffic (AADT) on the main line and on the side road. Development of Wyoming specific SPFs was not part of this project, however Colorado SPFs were used as a frame of reference for the assessment of the magnitude of the safety problem at locations selected for further examination. AADT data when available were obtained from the traffic volume maps on the CWMPO website and in some cases estimated from the maps. Frequency and severity of crashes predicted by the SPF is compared with frequency and severity observed at a specific site. Figure 1 provides a conceptual illustration how SPFs are used to provide a frame of reference for the assessment of the magnitude of the safety problem at an individual intersection, where expected number of accidents was 18/year and observed number of crashes was 26/year. This comparison provides a frame of reference for comparison with safety performance of other intersections of the same type carrying the same amount of traffic. Two types of Colorado SPFs were used; one for the total number of crashes; and another for injury and fatal crashes only. It is expected that Wyoming SPFs for intersections are slightly different from the Colorado SPFs, however it is felt that Colorado SPF could still be used to provide a baseline for the magnitude of the problem. It is important to note that

SPFs can only provide a frame of reference for the safety performance of an individual intersection. The nature of the problem is determined by diagnostic investigation using direct diagnostic techniques in concert with field visits. It is also important to realize that accident patterns susceptible to cost-effective correction may exist with or without overrepresentation in frequency reflected by the SPF.


Figure 1 SPF as Frame of Reference - Conceptual Illustration

The following example illustrates how SPFs were used to assist with assessment of the magnitude of the safety problem at locations selected for further examination. The intersection of Dell Range Blvd and Ridge Rd is a 4-leg, 4-lane divided signalized intersection, mainline $A A D T_{1}=22,058 \mathrm{vpd}$, and side-road $A_{A D T}^{2}=7,580 \mathrm{vpd}$. The SPF model representing total number of crashes for 4-leg, 4-lane,divided signalized intersection is expressed as follows:

| Model Form <br> Accidents/year $=\exp (\ln \alpha) \cdot(\text { MajAADT })^{\beta 1} \cdot(\text { MinAADT })^{\beta 2} \cdot \exp ($ majvar $\cdot \beta 3)$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 皆 | Full Description | $\ln (\alpha)$ (s.e.) | $\beta 1$ (s.e.) | $\beta 2$ (s.e.) | $\beta 3$ (s.e.) | Overdispersion Parameter |
| 1 | Urban 4-Lane Divided Signalized 4-Leg | $\begin{aligned} & \hline-17.4479 \\ & (3.5681) \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 1.5811 \\ (0.3894) \end{gathered}$ | $\begin{gathered} 0.4985 \\ (0.0517) \end{gathered}$ | $\begin{aligned} & \hline-0.2585 \\ & (0.1521) \\ & \hline \end{aligned}$ | 0.1343 |

The SPF model representing injury and fatal crashes for 4-leg, 4-lane, divided, signalized intersection is expressed as follows:

| Model FormAccidents/year $=\exp (\ln \alpha) \cdot(\text { MajAADT })^{\beta 1} \cdot(\text { MinAADT })^{\beta 2} \cdot \exp ($ majvar $\cdot \beta 3)$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 辰 | Full Description | $\ln (\alpha)$ (s.e.) | $\beta 1$ (s.e.) | 2 (s.e.) | $\beta 3$ (s.e.) | Overdispersion Parameter |
| 1 | Urban 4-Lane Divided Signalized 4-Leg | $\begin{aligned} & -20.6848 \\ & (5.0031) \\ & \hline \end{aligned}$ | $\begin{gathered} 1.8508 \\ (0.5450) \\ \hline \end{gathered}$ | $\begin{gathered} 0.4547 \\ (0.0629) \\ \hline \end{gathered}$ | $\begin{gathered} \hline-0.3743 \\ (0.1995) \\ \hline \end{gathered}$ | 0.1546 |

Over 6 years of the study period this location experienced 15.5 crashes/year and 5.33 injury and fatal crashes/year. Crash frequency predicted by the SPF is 9.79 crashes/year for total, and 2.89 for injury and fatal crashes/year respectively. Cross sections of the SPF response surface taken as the level of side-road AADT=7,580 VPD shown on Figures 2A and 2B are also shown as 2-dimensional graphs on Figures 3 and 4 for total and injury/fatal crashes respectively.


Figure 2A Cross Section Development for Total SPF


Figure 2B Cross Section Development for Injury + Fatal SPF


Figure 3 Dell Range and Ridge and Total SPF


Figure 4 Dell Range and Ridge and Injury + Fatal SPF

In this case the total observed frequency and severity were higher than predicted by the SPF. Each intersection selected for further examination in this report will have its observed as well expected safety performance listed in addition to its PCRS (Potential Crash Reduction Score).

## Criteria for Ranking of Urban Intersections in Cheyenne, Wyoming

Intersections were ranked on the basis of their Potential Crash Reduction Score (PCRS). PCRS reflects a composite indicator of the intersection's susceptibility to costeffective safety improvements. It considers the strength of observed crash patterns (degree of abnormality in the accident history expressed in \%), weighted frequency and severity of crashes in the pattern and accident reduction factor (ARF) associated with pattern-related countermeasure. The following example illustrated how PCRS is computed and applied to the list of intersections developed by DiExSys and CWMPO.

- Intersection Name-Yellowstone and Central
- Accident History over the study period: 95 Property Damage Only (PDO) crashes and 31 Injuries
- Observed Crash Pattern identified using pattern recognition analysis:

Left Turn (Approach Turn) crashes are over-represented with 98.41\% Cumulative Binomial Probability (CBP). Out of 126 crashes, 33 (26.19\% of the total) are left turn (approach turn) related, when the expected norm is 18.84\%. 98.41\% CBP means that observing 30 out of 94 is unlikely to observe randomly and suggests an opportunity for safety improvements at this location. Out of 33 crashes in the left turn pattern 21 are PDO and 12 are injuries. In the scoring process within the pattern PDO crashes are weighted 1 and injury and fatal crashes are weighted 10.

- Accident Reduction Factor (ARF) associated with introducing a left turn on green arrow only is $90 \%$. PCRS is computed as follows:

PCRS $=($ Weighted $\#$ of Crashes in the Pattern) $x(C B P) \times(A R F)$
PCRS (Dell Range and Ridge) $=(21$ PDO + 10x12 Inj.) $x(.9841) \times(.90)=125$
If an intersection exhibits more than one pattern then all patterns are added up in the resulting PCRS score for that intersection. The top 21 locations on the list will be examined further to develop preliminary scopes of work and related benefit/cost analysis. The ranked list and supporting data analysis is provided below in Tables 1 and 2 :

| Ranking | All Locations | PCRS |
| :---: | :--- | ---: |
| 1 | Central \& Yellowstone (Warren) | 125 |
| 2 | Dell Range \& Ridge | 124 |
| 3 | College \& Pershing | 81 |
| 4 | Dell Range \& Converse | 74 |
| 5 | College \& E.Lincolnway | 63 |
| 6 | College \& S. Greeley | 63 |
| 7 | Four Mile \& Ridge | 62 |
| 8 | Converse \& E.Lincolnway | 59 |
| 9 | 16th St \& Central | 57 |
| 10 | 5th and Demming | 54 |
| 11 | 19th St \& Converse | 47 |
| 12 | Four Mile \& Yellowstone | 47 |
| 13 | E.Lincolnway \& Ridge | 46 |
| 14 | Logan \& Pershing | 45 |
| 15 | Central \& Pershing | 44 |
| 16 | 20th St \& Logan | 39 |
| 17 | Henderson \& Omaha | 38 |
| 18 | l-180 \& I-80 (Ramps) | 37 |
| 19 | 20th St \& Warren | 35 |
| 20 | Central \& Kennedy | 33 |
| 21 | 19th St \& Warren | 29 |
| E.Lincolnway \& Pershing |  |  |

Table 1 List of Selected Locations

| Location | Pattern | PDO | IN | FAT | Total | $\begin{gathered} \text { \# in } \\ \text { Pattern } \end{gathered}$ | \% Pattern | Pattern | Type Intsx | Norm | BP\% | $\begin{array}{\|c} \text { PDO } \\ \text { (Pattern) } \end{array}$ | $\begin{array}{\|c\|} \text { INJ } \\ \text { (Pattern) } \end{array}$ | $\begin{array}{\|c\|} \text { FAT } \\ \text { (Pattern) } \end{array}$ | ARF | Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Central \& Yellowstone (Warren) | Signalized Approach Turn | 95 | 31 | 0 | 126 | 33 | 26.2\% | AT | U4XDS3 | 18.8\% | 98.4\% | 21 | 12 | 0 | 90\% | 125 |
| Dell Range \& Ridge | Signalized Approach Turn | 61 | 32 | 0 | 93 | 30 | 32.3\% | AT | U4XDS4 | 19.4\% | 99.9\% | 18 | 12 | 0 | 90\% | 124 |
| College \& Pershing | Signalized Broadside | 58 | 25 | 0 | 83 | 36 | 43.4\% | BS | U4XDS4 | 15.4\% | 100.0\% | 22 | 14 | 0 | 50\% | 81 |
| Dell Range \& Converse | Signalized Rear End+ | 130 | 77 | 1 | 208 | 124 | 59.6\% | RE | U4XDS4 | 45.2\% | 100.0\% | 83 | 41 | 0 | 15\% | 74 |
| College \& E.Lincolnway | Signalized Broadside | 42 | 17 | 0 | 59 | 28 | 47.5\% | BS | U4XDS4 | 15.4\% | 100.0\% | 17 | 11 | 0 | 50\% | 63 |
| College \& S. Greeley | Signalized Approach Turn | 32 | 23 | 0 | 55 | 16 | 29.1\% | BS | U4XDS4 | 15.4\% | 99.7\% | 10 | 6 | 0 | 90\% | 63 |
| Four Mile \& Ridge | Stop Sign Broadside | 3 | 11 | 1 | 15 | 15 | 100.0\% | BS | U2XDU4 | 29.1\% | 100.0\% | 3 | 11 | 1 | 50\% | 62 |
| Converse \& E.Lincolnway | Signalized Broadside | 52 | 23 | 0 | 75 | 29 | 38.7\% | BS | U4XDS4 | 15.4\% | 100.0\% | 19 | 10 | 0 | 50\% | 59 |
| 16th St \& Central | Signalized Broadside | 62 | 17 | 0 | 79 | 42 | 53.2\% | BS | U4XDS4 | 15.4\% | 100.0\% | 34 | 8 | 0 | 50\% | 57 |
| 5 th and Demming | Stop Sign Broadside | 15 | 11 | 0 | 26 | 19 | 73.1\% | BS | u2xDu4 | 29.1\% | 100.0\% | 9 | 10 | 0 | 50\% | 54 |
| 19th St \& Converse | Signalized Broadside | 35 | 9 | 0 | 44 | 14 | 31.8\% | BS | U4XDS4 | 15.4\% | 99.8\% | 14 | 0 | 0 | 50\% | 47 |
|  | Signalized Approach Turn | 35 | 9 | 0 | 44 | 12 | 27.3\% | AT | U4XDS4 | 19.4\% | 93.0\% | 8 | 4 | 0 | 90\% |  |
| Four Mile \& Yellowstone | Stop Sign Broadside | 4 | 9 | 0 | 13 | 10 | 76.9\% | BS | u4xDu4 | 21.5\% | 100.0\% | 4 | 9 | 0 | 50\% | 47 |
| E.Lincolnway \& Ridge | Signalized Broadside | 21 | 16 | 1 | 38 | 20 | 52.6\% | BS | U4XDS4 | 15.4\% | 100.0\% | 12 | 7 | 1 | 50\% | 46 |
| Logan \& Pershing | Signalized Approach Turn | 23 | 4 | 0 | 27 | 14 | 51.9\% | AT | U4XDS3 | 18.8\% | 100.0\% | 10 | 4 | 0 | 90\% | 45 |
| Central \& Pershing | Signalized Broadside | 43 | 10 | 0 | 53 | 30 | 56.6\% | BS | U4XDS4 | 15.4\% | 100.0\% | 24 | 6 | 0 | 50\% | 44 |
|  | Signalized Overtaking Turn | 43 | 10 | 0 | 53 | 4 | 7.5\% | OT | U4XDS4 | 1.1\% | 100.0\% | 4 | 0 | 0 | 50\% |  |
| 20th St \& Logan | Signalized Broadside | 16 | 8 | 0 | 24 | 16 | 66.7\% | BS | U4XDS4 | 15.4\% | 100.0\% | 9 | 7 | 0 | 50\% | 39 |
| Henderson \& Omaha | Stop Sign Broadside | 8 | 7 | 0 | 15 | 14 | 93.3\% | BS | U2XDU4 | 29.1\% | 100.0\% | 7 | 7 | 0 | 50\% | 38 |
| 1-180 \& 1-80 (Ramps) | Signalized Broadside | 43 | 21 | 0 | 64 | 20 | 31.3\% | BS | U4XDS4 | 15.4\% | 100.0\% | 14 | 6 | 0 | 50\% | 37 |
| 20th St \& Warren | Signalized Broadside | 20 | 9 | 0 | 29 | 17 | 58.6\% | BS | U4X154 | 34.8\% | 99.7\% | 11 | 6 | 0 | 50\% | 35 |
| Central \& Kennedy | Stop Sign Broadside | 22 | 7 | 0 | 29 | 14 | 48.3\% | BS | u4xdu3 | 19.4\% | 100.0\% | 10 | 4 | 0 | 50\% | 33 |
|  | Stop Sign Sideswipe Same | 22 | 7 | 0 | 29 | 5 | 17.2\% | SS | U4XDU3 | 8.3\% | 97.1\% | 4 | 1 | 0 | 50\% |  |
|  | Stop Sign Sideswipe Opposite | 22 | 7 | 0 | 29 | 3 | 10.3\% | so | U4XDU3 | 1.1\% | 100.0\% | 3 | 0 | 0 | 50\% |  |


| Location | Pattern | PDO | INJ | FAT | Total | \# in Pattern | \% Pattern | Pattern | Type Intsx | Norm | BP \% | $\begin{gathered} \text { PDO } \\ \text { (Pattern) } \end{gathered}$ | $\begin{gathered} \text { INJ } \\ \text { (Pattern) } \end{gathered}$ | $\begin{gathered} \text { FAT } \\ \text { (Pattern) } \end{gathered}$ | ARF | Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19th St \& Warren | Signalized Broadside | 13 | 10 | 0 | 23 | 13 | 56.5\% | BS | U4X154 | 34.8\% | 99.0\% | 8 | 5 | 0 | 50\% | 29 |
| E.Lincolnway \& Pershing | Signalized Broadside | 18 | 10 | 2 | 30 | 10 | 33.3\% | BS | U4XDS4 | 15.4\% | 99.6\% | 5 | 5 | 0 | 50\% | 27 |
| Pershing \& Snyder | Signalized Broadside | 19 | 8 | 0 | 27 | 15 | 55.6\% | BS | U4XUS4 | 25.2\% | 100.0\% | 11 | 4 | 0 | 50\% | 25 |
| College \& 12th | Signalized Rear End | 74 | 29 | 1 | 104 | 55 | 52.9\% | RE | U4XDS4 | 45.2\% | 95.2\% | 42 | 13 | 0 | 15\% | 25 |
| 24th St \& Central | Signalized Broadside | 21 | 6 | 0 | 27 | 13 | 48.1\% | BS | U2XUS4 | 21.0\% | 100.0\% | 9 | 4 | 0 | 50\% | 24 |
| 20th St \& Central | Signalized Broadside | 19 | 7 | 0 | 26 | 13 | 50.0\% | BS | U6X154 | 32.7\% | 97.9\% | 9 | 4 | 0 | 50\% | 24 |
| Dunn \& Nationway | Signalized Broadside | 15 | 5 | 1 | 21 | 11 | 52.4\% | BS | U4XDU4 | 21.5\% | 100.0\% | 7 | 4 | 0 | 50\% | 23 |
| 5th St \& Central | Stop Sign Broadside | 21 | 4 | 0 | 25 | 17 | 68.0\% | BS | U2XUU4 | 29.5\% | 100.0\% | 14 | 3 | 0 | 50\% | 22 |
| $\mathrm{I}-80$ \& S.Greeley (Ramps) | Signalized Broadside | 19 | 9 | 1 | 29 | 10 | 34.5\% | BS | U4XDS4 | 15.4\% | 99.7\% | 7 | 2 | 1 | 50\% | 18 |
| 16th St \& Ames Ct | Signalized Pedestrian | 28 | 9 | 1 | 38 | 3 | 7.9\% | Ped | U4XDS3 | 1.5\% | 99.7\% | 0 | 2 | 1 | 30\% | 18 |
|  | Signalized Broadside | 28 | 9 | 1 | 38 | 10 | 26.3\% | BS | U4XDS3 | 13.4\% | 99.1\% | 9 | 1 | 0 | 50\% |  |
| Dell Range \& Stillwater | Signalized Broadside | 23 | 11 | 1 | 35 | 13 | 37.1\% | BS | U4XDS4 | 15.4\% | 100.0\% | 11 | 2 | 0 | 50\% | 15 |
| 9th \& l-180 | Signalized Broadside | 26 | 11 | 0 | 37 | 12 | 32.4\% | BS | U4XDS4 | 15.4\% | 99.7\% | 10 | 2 | 0 | 50\% | 15 |
| Henderson \& Pershing | Signalized Broadside | 18 | 6 | 0 | 24 | 10 | 41.7\% | BS | U4XDS4 | 15.4\% | 100.0\% | 9 | 1 | 0 | 50\% | 9 |
| Pershing \& Warren | Signalized Broadside | 37 | 8 | 0 | 45 | 15 | 33.3\% | BS | U4XDS3 | 13.4\% | 100.0\% | 13 | 0 | 0 | 50\% | 6 |
| Carey \& 8th | Stop Sign Rear End | 11 | 3 | 0 | 14 | 8 | 57.1\% | RE | U4XUU4 | 33.4\% | 98.2\% | 7 | 1 | 0 | 15\% | 3 |
| Dell Range \& College | No Pattern Observed | 82 | 29 | 0 | 111 | 0 | 0.0\% | None | U4XDS4 | 0.0\% | 100.0\% | 0 | 0 | 0 | 0\% | 0 |

## Table 2

Central and Yellowstone Potential Crash Reduction Score 125 $A D T_{1}=36,706, A D T_{2}=13,341$; Expected Total 13.26/year, Observed 21/year, Expected Inj.,3.65/year, Observed 5.2/year


Figure 5 Central Ave and Yellowstone Rd Layout

Junction of Central Ave and Yellowstone Rd is a 3-leg, divided signalized intersection. Signal design is a mast arm configuration with gantry on Warren, 12 inch LED heads and back-plates, left turn phasing is permitted-protected (Figure 6). Over the study period this location experienced 126 accidents, 32 of which resulted in injury. Distribution of accidents by type is presented on Figure 7 and diagnostic summary of crash characteristics is presented on Figure 8. Direct diagnostic analysis shows a pattern of approach turn crashes, which suggests a potential for crash reduction.


Figure 6 Yellowstone Rd. Westbound Approach


Figure 7 Distribution of Accidents by Type


Figure 8 Diagnostic Summary

Horizontal curvature in the alignment of Yellowstone on the west leg of the intersection influences the accuracy of gap perception by the westbound drivers making a left turn onto Central. Left turn protected only phasing can be considered as a solution to this problem. This phasing modification is expected to result in $90 \%$ reduction in approach turn crashes. Even though introducing left turn only phasing will result in a few seconds of additional delay, the safety benefit of accident reduction will far outweigh the inconvenience of additional delay. Distribution of approach turn crashes by time of day suggests that these crashes occur throughout the day (Figure 9). Table 4 provides details of life cycle benefit/cost analysis associated with introducing protected only left turn phasing. It shows that it is highly cost-effective from the safety stand point.


Figure 9 Distribution of Approach Turn Crashes by Time of Day


Table 3 Life Cycle Benefit Cost Analysis for Left Turn Protected Only Phasing

Dell Range and Ridge- Potential Crash Reduction Score 124 $A D T_{1}=22,058, A D T_{2}=7580$; Expected Total 9.47/year, Observed 15.5/year, Expected Inj.,2.89/year, Observed 5.2/year


Figure 10 Dell Range (E-W) and Ridge (N-S) Layout
Junction of Dell Range Blvd and Ridge Rd is a four-leg divided signalized intersection. Signal design is a mast arm configuration, with 12 inch LED heads and back-plates, left turn phasing is permitted-protected on all approaches, pedestrian phasing is operating in recall mode (Figures 10 and 11). Over the study period this location experienced 93 accidents, 32 of which resulted in injury. Diagnostic summary of crash characteristics is presented on Figure 12 and distribution by accident type is presented on Figure 13. Direct diagnostic analysis shows a pattern of approach turn crashes, which suggests a potential for crash reduction.

Yellow plus all red change intervals observed in the field reflect local practices and are in concert with nominal values recommended by the ITE Traffic Engineering Handbook, however increasing optional red clearance to 2 seconds may be considered. Even a moderate reduction in the number of broadside crashes will be highly cost-effective, since this modification will only require limited amount of staff time and no additional hardware.


Figure 10 Ridge Rd


Figure 11 Dell Range

| DiExSys ${ }^{\text {TM }}$ Safety Systems <br> Direct Diagnostics (Spot Location) Analysis |  |  |  | job\#: | $01 / 15 / 2010$ 20100115115645 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Highway Class: Colorado - Urban 4-Lane Divided Signalized 4-Leg Intersections |  |  | C | toff: | 3 ACC'S@ $95 \%$ |
| - Baseline Statistics | Statewide | verage | This L | ation | Probability |
| CATEGORY | \# ACC's | \% | \# ACC's | \% | \% |
| Property Damage Only (PDO) | 35,506 | 68.78\% | 61 | 65.59\% | 28.77\% |
| Injury (INJ) | 15,982 | 30.96\% | 32 | 34.41\% | 79.85\% |
| Fatal (FAT) | 138 | 0.27\% | 0 | 0.00\% | N/A |
| Persons Injured | 24,351 |  | 52 |  |  |
| Persons Killed | 142 |  | 0 |  | N/A |
| Single Vehicle Accidents | 3,443 | 6.67\% | 2 | 2.15\% | 4.81\% |
| Two Vehicle Accidents | 41,898 | 81.16\% | 83 | 89.25\% | 98.80\% |
| Three or More Vehicle Accidents | 6,120 | 11.85\% | 8 | 8.60\% | 21.30\% |
| Unknown Number of Vehicles | 165 | 0.32\% | 0 | 0.00\% | N/A |
| On Road | 49,405 | 95.70\% | 0 | 0.00\% | N/A |
| Off Road | 2,096 | 4.06\% | 0 | 0.00\% | N/A |
| Off Road Left | 770 | 1.49\% | 0 | 0.00\% | N/A |
| Off Road Right | 1,294 | 2.51\% | 0 | 0.00\% | N/A |
| Off Road at Tee | 18 | 0.03\% | 0 | 0.00\% | N/A |
| Off Road in Median | 14 | 0.03\% | 0 | 0.00\% | N/A |
| Unknown Road Location | 125 | 0.24\% | 93 | 100.00\% | 100.00\% |
| Overturning | 205 | 0.40\% | 0 | 0.00\% | N/A |
| Other Non Collision | 218 | 0.42\% | 0 | 0.00\% | N/A |
| School Age Pedestrians | 94 | 0.18\% | 0 | 0.00\% | N/A |
| All Other Pedestrians | 815 | 1.58\% | 0 | 0.00\% | N/A |
| Broadside | 7,963 | 15.42\% | 18 | 19.35\% | 88.15\% |
| Head On | 299 | 0.58\% | 3 | 3.23\% | 99.78\% |
| Rear End | 23,351 | 45.23\% | 31 | 33.33\% | 1.31\% |
| Sideswipe (Same Direction) | 3,994 | 7.74\% | 6 | 6.45\% | 41.41\% |
| Sideswipe (Opposite Direction) | 311 | 0.60\% | 1 | 1.08\% | 89.14\% |
| Approach Turn | 10,014 | 19.40\% | 30 | 32.26\% | 99.89\% |
| Overtaking Turn | 553 | 1.07\% | 1 | 1.08\% | 73.72\% |
| Parked Motor Vehicle | 784 | 1.52\% | 0 | 0.00\% | N/A |
| Railway Vehicle | 2 | 0.00\% | 0 | 0.00\% | N/A |
| Bicycle | 654 | 1.27\% | 1 | 1.08\% | 67.01\% |
| Motorized Bicycle | 11 | 0.02\% | 0 | 0.00\% | N/A |
| Domestic Animal | 23 | 0.04\% | 0 | 0.00\% | N/A |

Figure 12 Dell Range Diagnostics Summary of Crash Characteristics


Figure 13 Dell Range and Ridge, Distribution by Crash Type
Approach turn crashes were predominantly observed in the E-W direction (Figure 14) and predominantly in the PM Period (Figure 15)


Figure 14 Distribution of Approach Turn Crashes by Direction


Figure 15 Distribution of Approach Turn Crashes by Time of Day
Left turn protected only phasing on Dell Range between 12 PM and 12 AM can be considered. This phasing modification is expected to result in $90 \%$ reduction in approach turn crashes. Even though introducing left turn only phasing will result in a few seconds of additional delay, the safety benefit of accident reduction will far outweigh the inconvenience of additional delay. Table 4 provides details of life cycle benefit/cost analysis associated with introducing protected only left turn phasing. It shows that it is highly cost-effective from safety stand point.


Table 4 Life Cycle B/C Analysis for Left Turn Protection by Time of Day on Dell
Range

College and Pershing - Potential Crash Reduction Score 81
$A D T_{1}=14,107, A D T_{2}=10,982$; Expected Total 6.9/year, Observed 13.83/year, Expected Inj.,2.02/year, Observed 4.17/year


Figure 16 College and Pershing Layout
Junction of N College Dr and E Pershing Blvd is a four-leg, divided signalized intersection. Signal design is a mast arm configuration, with 12 inch LED heads and back plates on all approaches. Over the study period this location experienced 83 accidents, 25 of which resulted in injury. Distribution by accident type is presented on Figure 17 and diagnostic summary of crash characteristics is presented on Figure 18. Direct diagnostic analysis shows a pattern of broadside crashes, which suggests a potential for crash reduction. Berm and trees in the southwest corner of the intersection (Figure 19) obstruct lines of site. Even though this is a signalized intersection it may influence frequency of broadsides. Distribution of broadsides by direction shows that $45 \%$ of the time vehicle traveling EB on Pershing is at fault, since the berm and trees are on private property it may be difficult to influence the landowner to improve sight distance.

Yellow plus all red change intervals observed in the field reflect local practices and are in concert with nominal values recommended by the ITE Traffic Engineering Handbook, however in light of the observed broadside pattern and limited sight distance increasing optional red clearance to 2 seconds may be considered. Even a moderate reduction in the number of broadside crashes will be highly cost-effective, since this modification will only require limited amount of staff time and no additional hardware.


Figure 17 Distribution of Crashes by Type - College and Pershing


Figure 18-College and Pershing Diagnostics Summary of Crash Characteristics


Figure 19 College and Pershing Distribution of Broadside Crashes by Direction


Figure 20 Pershing EB Approach, SW Corner Site Triangle

Dell Range and Converse - Potential Crash Reduction Score 74 $A D T_{1}=29,405, A D T_{2}=15,930$; Expected Total 17.87/year, Observed 34.7/year, Expected Inj.,5.24/year, Observed 12.83/year


Figure 21 Dell Range ( $\mathrm{E}-\mathrm{W}$ ) and Converse ( N -S) Layout
Junction of Dell Range and Converse is a four-leg, divided signalized intersection. Signal design is a mast arm configuration, with 12 inch LED heads and back plates on all approaches. Over the study period this location experienced 208 accidents, 77 of which resulted in injury and 1 in fatality. Diagnostic summary of crash characteristics is presented on Figure 22 and distribution by accident type is presented on Figure 23. Direct diagnostic analysis shows elevated severity and patterns of rear-end and approach turn crashes, which suggests a potential for crash reduction.

During the field visit we observed that this intersection was congested which is consistent with a rear-end pattern. Even though rear-end crashes at congested intersections are not readily susceptible to correction, improvements in the quality of arterial progression if achievable leads to $10 \%-15 \%$ rear-end crash reduction.

Approach turn crashes are observed almost exclusively in the east-west direction on Dell Range, split phase on Converse fully protects left turners from the on-coming traffic. Considering a strong pattern of approach turn crashes we recommend introducing protected left-turn only phasing on Dell Range. Introduction of protected only left turn phasing is expected to result in $90 \%$ approach turn reduction. Table 5 provides Benefit/Cost ratio associated with introducing protected left only on Dell Range. Table 6 presents details of life/cycle analysis.

| DiExSys $^{\mathrm{TM}}$ Safety SystemsDirect Diagnostics (Spot Location) Analysis |  |  |  | Job \#: | $10 / 13 / 2009$ 20091013202309 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Highway Class: Urban 4-Lane Divided Signalized 4-Leg Intersections |  |  | Cutoff: |  | 3 ACc's @ 90\% |
| - Baseline Statistics | Statewid | verage | This | ation | Probability - |
| CATEGORY | \# ACC's | \% | \# ACC's | \% | \% |
| Property Damage Only (PDO) | 35,506 | 68.78\% | 130 | 62.50\% | 4.81\% |
| Injury (INJ) | 15,982 | 30.96\% | 77 | 37.02\% | 94.31\% 4 |
| Fatal (FAT) | 138 | 0.27\% | 1 | 0.48\% | 28.91\% |
| Persons Injured | 24,351 |  | 128 |  |  |
| Persons Killed | 142 |  | 1 |  |  |
| Single Vehicle Accidents | 3,443 | 6.67\% | 3 | 1.44\% | 0.25\% |
| Two Vehicle Accidents | 41,898 | 81.16\% | 461 | 77.40\% | 11.24\% |
| Three or More Vehicle Accidents | 6,120 | 11.85\% | 44 | 21.15\% | 99.94\% 4 |
| Unknown Number of Vehicles | 165 | 0.32\% | 0 | 0.00\% | 0.00\% |
| On Road | 49,405 | 95.70\% | 0 | 0.00\% | 0.00\% |
| Off Road | 2,096 | 4.06\% | 0 | 0.00\% | 0.00\% |
| Off Road Left | 770 | 1.49\% | 0 | 0.00\% | 0.00\% |
| Off Road Right | 1,294 | 2.51\% | 0 | 0.00\% | 0.00\% |
| Off Road at Tee | 18 | 0.03\% | 0 | 0.00\% | 0.00\% |
| Off Road in Median | 14 | 0.03\% | 0 | 0.00\% | 0.00\% |
| Unknown Road Location | 125 | 0.24\% | 208 | 100.00\% | 100.00\% |
| Overturning | 205 | 0.40\% | 0 | 0.00\% | 0.00\% |
| Other Non Collision | 218 | 0.42\% | 0 | 0.00\% | 0.00\% |
| School Age Pedestrians | 94 | 0.18\% | 0 | 0.00\% | 0.00\% |
| All Other Pedestrians | 815 | 1.58\% | 0 | 0.00\% | 0.00\% |
| Broadside | 7,963 | 15.42\% | 20 | 9.62\% | 1.99\% |
| Head On | 299 | 0.58\% | 1 | 0.48\% | 36.89\% |
| Rear End | 23,351 | 45.23\% | 124 | 59.62\% | 99.99\% 4 |
| Sideswipe (Same Direction) | 3,994 | 7.74\% | 6 | 2.88\% | 0.59\% |
| Sideswipe (Opposite Direction) | 311 | 0.60\% | 1 | 0.48\% | 36.89\% |
| Approach Turn | 10,014 | 19.40\% | 51 | 24.52\% | 94.19\% |
| Overtaking Turn | 553 | 1.07\% | 1 | 0.48\% | 29.50\% |

Figure 22 Dell Range and Converse Direct Diagnostics Summary


Figure 23 Dell Range and Converse Distribution of Accidents by Crash Type

| Cost of 8 Pole Mounted Heads and Protected <br> Left Turn Only Phasing on Dell Range | B/C with $90 \%$ Reduction in Approach <br> Turn Crashes |
| :---: | :---: |
| $\$ 10,000$ | 644 |

Table 6 B/C Ratio for Left Turn Only Phasing and 8 Pole Mounted Heads


## Table 6 Left Turn Only and 8 Pole Mounted Heads Life Cycle Analysis Detail

Even though introducing left turn only phasing will result in a few seconds of additional delay, the safety benefit of accident reduction will far outweigh the disbenefit of the delay.

## E Lincolnway and N College- Potential Crash Reduction Score 64

 $A D T_{1}=15,593, A D T_{2}=11,392$; Expected Total 7.93/year, Observed 9.83/year, Expected Inj.,2.33/year, Observed 2.83/year

Figure 25 E Lincolnway and College Layout


Figure 26 Channelized Right Turn from EB E Lincolnway to SB College

Junction of E Lincolnway and N College Dr is a four-leg, divided signalized intersection. Signal design is a mast arm configuration, with 12 inch LED heads and back plates on all approaches. Signal heads are well aligned with lanes and pedestrian indicators are operating in a recall mode. Over the study period this location experienced 59 accidents, 17 of which resulted in injury. Diagnostic Summary of crash characteristics is presented on Figure 27 and distribution by accident type is presented on Figure 28. Direct diagnostic analysis shows a pattern of broadside crashes, which suggests a potential for crash reduction. Distribution of broadside crashes by direction is provided on Figure 29.

| DiExSys ${ }^{\text {TM }}$ Safety Systems <br> Direct Diagnostics (Spot Location) Analysis |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Highway Class: Urban 4-Lane Divided Signalized 4-Leg | ersections |  | Cutoff: |  | 3 Acc's @ 95\% |
| - Baseline Statistics - | Statewide Average |  | This 1 | cation | Probability |
| CATEGORY | \# ACC's | \% | \# ACC's | \% | \% |
| Property Damage Only (PDO) | 35,506 | 68.78\% | 42 | 71.19\% | 70.09\% |
| Injury (INJ) | 15,982 | 30.96\% | 17 | 28.81\% | 42.16\% |
| Fatal (FAT) | 138 | 0.27\% | 0 | 0.00\% | N/A |
| Persons Injured | 24,351 |  | 39 |  |  |
| Persons Killed | 142 |  | 0 |  | N/A |
| Single Vehicle Accidents | 3,443 | 6.67\% | 0 | 0.00\% | N/A |
| Two Vehicle Accidents | 41,898 | 81.16\% | 57 | 96.61\% | 99,99\% - |
| Three or More Vehicle Accidents | 6,120 | 11.85\% | 2 | 3.39\% | 2.33\% |
| Unknown Number of Vehicles | 165 | 0.32\% | 0 | 0.00\% | N/A |
| On Road | 49,405 | 95.70\% | 0 | 0.00\% | N/A |
| Off Road | 2,096 | 4.06\% | 0 | 0.00\% | N/A |
| Off Road Left | 770 | 1.49\% | 0 | 0.00\% | N/A |
| Off Road Right | 1,294 | 2.51\% | 0 | 0.00\% | N/A |
| Off Road at Tee | 18 | 0.03\% | 0 | 0.00\% | N/A |
| Off Road in Median | 14 | 0.03\% | 0 | 0.00\% | N/A |
| Unknown Road Location | 125 | 0.24\% | 59 | 100.00\% | 100.00\% 4 |
| Overturning | 205 | 0.40\% | Q | 0.00\% | N/A |
| Other Non Collision | 218 | 0.42\% | 0 | 0.00\% | N/A |
| School Age Pedestrians | 94 | 0.18\% | 0 | 0.00\% | N/A |
| All Other Pedestrians | 815 | 1.58\% | 0 | 0.00\% | N/A |
| Broadside | 7,963 | 15.42\% | 28 | 47.46\% | 100.00\% |
| Head On | 299 | 0.58\% | 2 | 3.39\% | 99.50\% |
| Rear End | 23,351 | 45.23\% | 13. | 22.03\% | 0.02\% |
| Sideswipe (Same Direction) | 3,994 | 7.74\% | 2 | 3.39\% | 15.54\% |
| Sideswipe (Opposite Direction) | 311 | 0.60\% | 1 | 1.69\% | 95.05\% |
| Approach Turn | 10,014 | 19.40\% | 13 | 22.03\% | 75.65\% |

Figure 27 E Lincolnway and College Direct Diagnostics Summary

Yellow plus all red change intervals observed in the field reflect local practices and are in concert with nominal values recommended by the ITE Traffic Engineering Handbook, however in light of the observed broadside pattern increasing optional red clearance to 2 seconds may be considered. Even a moderate reduction in the number of broadside crashes will be highly cost-effective, since this modification will only require limited amount of staff time and no additional hardware.


Figure 28 E Lincolnway and College Distribution of Accidents by Type


Figure 29 E Lincolnway and College Distribution of Broadside Crashes by Direction

W College and S Greeley - Potential Crash Reduction Score 63 $A D T_{1}=17,786, A D T_{2}=7,800$; Expected Total 7.63/year, Observed 9.17/year, Expected Inj.,2.31/year, Observed 3.83/year


Figure 30 W College and S Greeley Layout
Junction of W College Dr and S Greeley Highway is a four-leg, divided signalized intersection. Signal design is a mast arm configuration, with 12 inch LED heads and back plates on all approaches. Signal heads are well aligned with lanes and pedestrian indicators are operating in a recall mode. Over the study period this location experienced 55 accidents, 23 of which resulted in injury. Diagnostic Summary of crash characteristics is presented on Figure 31 and distribution by accident type is presented on Figure 32. Direct diagnostic analysis shows elevated severity of crashes and a pattern of broadside and approach turn crashes, which suggests a potential for crash reduction.

Yellow plus all red change intervals observed in the field reflect local practices and are in concert with nominal values recommended by the ITE Traffic Engineering Handbook, however in light of elevated injuries and an observed broadside pattern increasing optional red clearance to 2 seconds may be considered. Distribution of broadside crashes by direction is provided on Figure 34.

Vehicles making left turns in and out of the busy convenience stores with gas stations in the north-west and north-east corners of the intersections were observed during field visit. These left turn maneuvers may be related to the over-representation of left turn (approach turn) and broadside crashes at this intersection. Specifically Kum and Go convenience store with its 2 curb cuts north of the intersection (Figures 33 and 34) adds to conflict opportunities at this location. Introduction of a raised median on S Greeley on
the north leg of the intersection and consolidation of access to Kum and Go convenience store are effective countermeasure to reduce broadside and left turn crashes at this location.

| DiExSys ${ }^{\text {TM }}$ Safety Systems <br> Direct Diagnostics (Spot Location) Analysis |  |  |  | Job \# | 10/29/2009 20091029144142 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Highway Class: Urban 4-Lane Divided Signalized 4-Leg intersections |  |  | Cutoff: |  | 3 Acc's @ 95\% |
| - Baseline Statistics | Statewid | Average | This L | cation | Probability |
| CATEGORY | \# ACC's | \% | \# ACC's | \% | \% |
| Property Damage Only (PDO) | 35,506 | 68.78\% | 32 | 58.18\% | 6.31\% |
| Injury ( ${ }^{\text {NJJ }}$ ) | 15,982 | 30.96\% | 23 | 41.82\% | 96.79\% |
| Fatal (FAT) | 138 | 0.27\% | 0 | 0.00\% | N/A |
| Persons Injured | 24,351 |  | 35 |  |  |
| Persons Killed | 142 |  | 0 |  | N/A |
| Single Vehicle Accidents | 3,443 | 6.67\% | 2 | 3.64\% | 28.10\% |
| Two Vehicle Accidents | 41,898 | 81.16\% | 45 | 81.82\% | 60.41\% |
| Three or More Vehicle Accidents | 6,120 | 11.85\% | 8 | 14.55\% | 80.08\% |
| Unknown Number of Vehicles | 165 | 0.32\% | 0 | 0.00\% | N/A |
| On Road | 49,405 | 95.70\% | 0 | 0.00\% | N/A |
| Off Road | 2,096 | 4.06\% | 0 | 0.00\% | N/A |
| Off Road Left | 770 | 1.49\% | 0 | D.00\% | N/A |
| Off Road Right | 1,294 | 2.51\% | 0 | 0.00\% | N/A |
| Off Road at Tee | 18 | 0.03\% | 0 | 0.00\% | N/A |
| Off Road in Median | 14 | 0.03\% | 0 | 0.00\% | N/A |
| Unknown Road Location | 125 | 0.24\% | 55 | 100.00\% | 100.00\% |
| Overturning | 205 | 0.40\% | 0 | 0.00\% | N/A |
| Other Non Collision | 218 | 0.42\% | 2 | 3.64\% | 99.83\% |
| School Age Pedestrians | 94 | 0.18\% | 0 | 0.00\% | N/A |
| All Other Pedestrians | 815 | 1.58\% | 0 | 0.00\% | N/A |
| Broadside | 7,963 | 15.42\% | 16 | 29.09\% | 99.71\% 4 |
| Head On | 299 | 0.58\% | 2 | 3.64\% | 99.59\% |
| Rear End | 23,351 | 45.23\% | 9 | 16.36\% | 0.00\% |
| Sideswipe (Same Direction) | 3,994 | 7.74\% | 5 | 9.09\% | 74.93\% |
| Sideswipe (Opposite Direction) | 311 | 0.60\% | 1 | 1.82\% | 95.63\% |
| Approach Turn | 10,014 | 19.40\% | 17 | 30.91\% | 98.66\% 4 |
| Overtaking Turn | 553 | 1.07\% | 0 | 0.00\% | N/A |
| Parked Motor Vehicle | 784 | 1.52\% | 0 | 0.00\% | N/A |
| Railway Vehicle | 2 | 0.00\% | 0 | D.00\% | N/A |
| Bicycle | 654 | 1.27\% | 2 | 3.64\% | 96.73\% |

Figure 31 W College and S Greeley Diagnostic Summary of Crash Characteristics


Figure 32 College and S Greeley Distribution of Accident by Type


Figure 33 First Curb Cut into Kum \& Go Store


Figure 33 Second Curb Cut into Kum \& Go Store
Should the decision be made to provide improvements of raised median, access consolidation and increased yellow plus all red change intervals, we offer the following 2-way sensitivity analysis of Benefit/Cost (B/C) ratios as a guide to expenditures and anticipated safety improvements. Considering that some uncertainty exists about actual cost of construction and anticipated accident reductions Table 3 below provides Benefit/Cost ratios relating different construction costs with broadside and approach turn accident reductions in the $20 \%$ to $60 \%$ range.

| Cost of <br> Construction | B/C with 20\% <br> Crash Reduction | B/C with 40\% <br> Crash Reduction | B/C with 60\% <br> Crash Reduction |
| :---: | :---: | :---: | :---: |
| $\$ 50,000$ | 10.3 | 20.5 | 30.8 |
| $\$ 100,000$ | 5.1 | 10.3 | 15.4 |
| $\$ 150,000$ | 3.4 | 6.8 | 10.3 |
| $\$ 200,000$ | 2.6 | 5.1 | 7.7 |

Table 7 Anticipated B/C ratios for improvements at W College and S Greeley
Even the most conservative assumptions about cost of construction and resulting benefit/cost ratios suggest that this location has potential for cost-effective safety improvements with a B/C ratio of 2.56/1. Detailed life-cycle economic analysis for minimum and maximum B/C ratios are provided in Tables 7 and 8.


Table 8 Minimum B/C Ratio at W College and S Greeley


Table 8 Maximum B/C Ratio at W College and S Greeley


Figure 34 W College and S Greeley Distribution of Broadside Crashes by Direction

Left turns on College operate as permitted only (Figure 35), observing that 50\% of approach turns result in injuries they should be monitored and introduction of permitted/protected phasing on College may be considered in the future.


Figure 35 Signal Heads on College

Four Mile and Ridge - Potential Crash Reduction Score 62
$A D T_{1}=4,626, A D T_{2}=1446$; Expected Total 0.5 /year, Observed 2.5/year, Expected Inj.,.25/year, Observed 2/year


Figure 36 Four Mile Rd and Ridge Rd Layout

Four Mile Rd and Ridge Rd is a 4-leg 2-way stop controlled intersection. Over the study period this location experienced 15 accidents, 11 of which resulted in injuries and 1 in fatality. All of the observed accidents are broadsides. Diagnostic summary of crash characteristics is presented on Figure 37. Direct diagnostic analysis shows elevated severity of crashes and a strong pattern of broadsides. High severity of broadsides at this location suggests a high potential for cost effective intervention, distribution of crashes by severity is presented on Figure 38.

During field visit we observed a recently installed 48" stop signs with red flashing beacons (Figure 39). Examination of the sign sheeting revealed that these stop signs were manufactured in 2006 (Figure 40). Assuming that the sign and the flashing beacon were also installed in 2006 we observed that the number of broadsides has not changed significantly since the installation. Accident listing over the study period for this intersection is provided on Figure 41.


Figure 37 Four Mile Rd and Ridge Rd Diagnostic Summary


Figure 38 Four Mile Rd and Ridge Rd Distribution of Accidents by Severity


Figure 39 Four Mile Rd and Ridge Rd Stop Sign Looking SB


Figure 40 Four Mile Rd and Ridge Rd Sign Sheeting Detail

| E\% Accident Listing |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | L0C_01 | Loc_02 | Date | Time | Severity | Lighting | Weather | Acctype | Dir_1 | Violcode_1 | 入 |
| - | FOUR MILE | RIDGE RD | 01/11/2002 | 1831 | PDO | DARK-UNLIGHTED | NONE | BROADSIDE | N | NONE |  |
|  | FOUR MILE | RIDGE RD | 05/27/2002 | 1225 | INJ | DAYLIGHT | NONE | BROADSIDE | N | ALCOHOL INVOLV |  |
|  | FOUR MILE | RIDGE RD | 07/20/2002 | 0928 | 1 N, | DAYLIGHT | NONE | BROADSIDE | W | NO APPARENT VIOL |  |
|  | FOUR MILE | RIDGE RD | 08/19/2002 | 1730 | $1 \mathrm{~N} J$ | DAYLIGHT | NONE | BROADSIDE | S | NONE |  |
|  | FOUR MILE | RIDGE RD | 08/20/2002 | 1626 | INJ | DAYLIGHT | NONE | BROADSIDE | S | NONE |  |
|  | FOUR MILE | RIDGE RD | 04/28/2003 | 1705 | INJ | DAYLIGHT | NONE | BROADSIDE | W | NO APPARENT VIOL |  |
|  | FOUR MILE | RIDGE RD | 05/29/2004 | 1915 | FAT | DAYLIGHT | NONE | BROADSIDE | E | NO APPARENT VIOL |  |
|  | FOUR MILE | RIDGE RD | 10/21/2004 | 1714 | INJ | DAYLIGHT | NONE | BROADSIDE | E | NO APPARENT VIOL |  |
|  | FOUR MILE | RIDGE RD | 11/03/2004 | 0916 | PDO | DAYLIGHT | NONE | BROADSIDE | N | NONE |  |
|  | FOUR MILE | RIDGE RD | 06/03/2005 | 1650 | 1 NJ | DAYLIGHT | RA.N | BROADSIDE | E | ALCOHOL INVOLV |  |
|  | FOUR MILE | RIDGE RD | 10/29/2005 | 0923 | PDO | DAYLIGHT | NONE | BROADSIDE | N | TRAF CNTRL DISREG |  |
|  | FOUR MILE | RIDGE RD | 04/28/2006 | 1713 | INJ | DAYLIGHT | NONE | BROADSIDE | N | NONE |  |
|  | FOUR MILE | RIDGE RD | 08/07/2007 | 0815 | 1 NJ | DAYLIGHT | NONE | BROADSIDE | N | PSGR DISTRACTN |  |
|  | FOUR MILE | RIDGE RD | 12/22/2007 | 0753 | 1 NJ | DAYLIGHT | NONE | BROADSIDE | N | DRIVER INATTENTION |  |
|  | FOUR MILE | RIDGE RD | 12/23/2007 | 1210 | 1 N, | DAYLIGHT | NONE | BROADSIDE | N | TRAF CNTRL DISREG | $\checkmark$ |
| < III |  |  |  |  |  | I |  |  |  | $>$ |  |

Figure 41 Accident Listing 2002-2007
In addition to enforcement strategies to improve safety further roadway improvements may also be considered. Recently introduced concept for Low-Cost Safety Improvements at Two-Way Stop-Controlled Intersection (FHWA-HRT-08-063) ${ }^{4}$ focuses on increasing intersection awareness by adding a supplemental STOP sign and a splitter island on the minor road Figure 42. According to studies similar installations were found to produce 30\% injury reduction in New Zealand and France.


Figure 42 Supplemental Sign and a Splitter Island Concept
Another design alternative to reduce injuries at this location is to construct a modern roundabout, although more costly it is expected to result in $60 \%$ crash reduction or greater. Should the decision be made to construct splitter islands with stop signs in Table 9 we offer Benefit/Cost (B/C) analysis of as a guide to expenditures and anticipated safety improvements. Considering that some uncertainty exists about actual

[^2]cost of construction of a roundabout Table 10 provides Benefit/Cost sensitivity analysis for the range of construction costs between $\$ 200,000$ and $\$ 300,000$.

| Cost of Splitter Islands with Supplemental <br> Stop Signs | B/C with $30 \%$ Crash Reduction |
| :---: | :---: |
| $\$ 20,000$ | 70.0 |

Table 9 Benefit/Cost Analysis for Splitter Island and Supplemental Stop Signs

| Cost of Roundabout | B/C with 60\% Crash Reduction |
| :---: | :---: |
| $\$ 200,000$ | 14.0 |
| $\$ 250,000$ | 11.2 |
| $\$ 300,000$ | 9.3 |

Table 10 Benefit/Cost Sensitivity Analysis for Roundabout

Detailed life-cycle economic analysis for each design alternative are provided in tables 11, 12 and 13.


Table 11 Splitter Island with Stop Signs B/C Analysis


Table 12 Roundabout B/C Analysis with Construction Cost \$200,000


Table 13 Roundabout B/C Analysis with Construction Cost \$300,000

Converse and E Lincolnway- Potential Crash Reduction Score 60 $A D T_{1}=21,384, A D T_{2}=8,596$; Expected Total 9.77 /year, Observed 12.5/year, Expected Inj.,2.97/year, Observed 3.83/year


Figure 43 Converse and E Lincolnway Layout
Converse and E Lincolnway is a 4 leg signalized intersection. Signal design is a mast arm configuration, with 12 inch LED heads and back plates on all approaches. Left turn phasing is permitted-protected on Lincolnway and permitted only on Converse. Speed limit on all approaches is 30 mph . The alignment of Converse is offset across the intersection which may be related to elevated frequency of approach turn crashes in the southbound direction. There are no ADA ramps on the south side of the intersection, their installation should be considered. Over the study period this location experienced 75 accidents, 23 of which resulted in injuries. Distribution of accidents by type is presented on Figure 44 and diagnostic summary of crash characteristics is found on Figure 45. Broadside crashes are over-represented and approach turns are notably elevated.

Yellow plus all red change intervals observed in the field reflect local practices and are in concert with nominal values recommended by the ITE Traffic Engineering Handbook, however in light of observed broadside pattern increasing optional red clearance to 2 seconds may be considered. Even a moderate reduction in the number of broadside crashes will be highly cost-effective, since this modification will only require limited amount of staff time and no additional hardware.


Figure 44 Converse and E Lincolnway Distribution of Accidents by Type

| DiExSys ${ }^{\text {TM }}$ Safety Systems Direct Diagnostics (Spot Location) Analysis |  |  |  | Job\#: | 10/13/2009 20091013200816 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Highway Class: Urban 4-Lane Divided Signalized 4-Leg Intersections. |  |  | Cutoff: |  | 3 Acc's @ 95\% |
| - Baseline Statistics | Statewid | verage | This L | cation | Probability |
| CATEGORY | \# ACC's | \% | \# ACC's | \% | \% |
| Property Damage Only (PDO) | 35,506 | 68.78\% | 52 | 69.33\% | 48.73\% |
| Injury (INJ) | 15,982 | 30.96\% | 23 | 30.67\% | 43.82\% |
| Fatal (FAT) | 138 | 0.27\% | 0 | 0.00\% | 0.00\% |
| Persons Injured | 24,351 |  | 41 |  |  |
| Persons Killed | 142 |  | 0 |  |  |
| Single Vehicle Accidents | 3,443 | 6.67\% | 2 | 2.67\% | 8.57\% |
| Two Vehicle Accidents | 41,898 | 81.16\% | 66 | 88.00\% | 89.87\% |
| Three or More Vehicle Accidents | 6,120 | 11.85\% | 7 | 9.33\% | 22.99\% |
| Unknown Number of Vehicles | 165 | 0.32\% | 0 | 0.00\% | 0.00\% |
| On Road | 49,405 | 95.70\% | 0 | 0.00\% | 0.00\% |
| Off Road | 2,096 | 4.06\% | 0 | 0.00\% | 0.00\% |
| Off Road Left | 770 | 1.49\% | 0 | 0.00\% | 0.00\% |
| Off Road Right | 1,294 | 2.51\% | 0 | D.00\% | 0.00\% |
| Off Road at Tee | 18 | 0.03\% | 0 | 0.00\% | 0.00\% |
| Off Road in Median | 14 | 0.03\% | 0 | 0.00\% | 0.00\% |
| Unknown Road Location | 125 | 0.24\% | 75 | 100.00\% | 100.00\% |
| Overturning | 205 | 0.40\% | 0 | 0.00\% | 0.00\% |
| Other Non Collision | 218 | 0.42\% | 1 | 1.33\% | 23.16\% |
| School Age Pedestrians | 94 | 0.18\% | 0 | 0.00\% | 0.00\% |
| All Other Pedestrians | 815 | 1.58\% | 0 | 0.00\% | 0,00\% |
| Broadside | 7,963 | 15.42\% | 29 | 38.67\% | 100.00\% 4 |
| Head On | 299 | 0.58\% | 0 | 0.00\% | 0.00\% |
| Rear End | 23,351 | 45.23\% | 14 | 18.67\% | 0.00\% |
| Sideswipe (Same Direction) | 3,994 | 7.74\% | 6 | 8.00\% | 46.89\% |
| Sideswipe (Opposite Direction) | 311 | 0.60\% | 1 | 1.33\% | 28.89\% |
| Approach Turn | 10,014 | 19.40\% | 20 | 26.67\% | 90.65\% |

Figure 45 Converse and E Lincolnway Diagnostic Summary

Offset in the alignment of Converse makes a southbound left turn with permitted only phasing challenging. Southbound driver making a left turn may think that a northbound driver is planning to make a right when he or she is going through, which could lead to approach turn crashes. Distribution of approach turn crashes by direction is presented on Figure $X X$.


Figure 46 Converse and E Lincolnway Distribution of Approach Turn Crashes by Direction

Introduction of permitted-protected phasing on Converse is expected to reduce the number of left turn crashes. Table 14 provides Benefit/Cost ratio associated with introducing protected-permitted left turn phasing on Converse. Table 15 presents details of life/cycle analysis.

Additionally, markings extensions through intersection to reflect offset lane lines on Converse may be considered to reduce sideswipe potential.

| Cost of Introducing Protected- <br> Permitted Phasing on Converse | Benefit/Cost Ratio based on 30\% <br> Reduction in Approach Turns |
| :---: | :---: |
| $\$ 10,000$ | 22.88 |

Table 14 B/C Analysis for Protected-permitted Phasing
If modeling shows that reserve capacity is available Converse could also be protected by introducing split phasing. This modification will not require additional equipment.


Table 15 Details of Benefit/Cost Analysis of Introducing Protected-Permitted Left Turn on Converse


Figure 47 16 $^{\text {th }}$ St (W Lincolnway) and Central (N Greeley Hwy) Layout
$16^{\text {th }}$ St (W Lincolnway) and Central (N Greeley Hwy) is a 4-leg signalized intersection with 12 inch LED heads and back plates on all approaches. Signal design is a mast arm configuration with gantries facing eastbound and southbound traffic. $16^{\text {th }}$ St is a one way in the southbound direction. Over the study period this location experienced 79 accidents, 17 of which resulted in injuries. Distribution of accident by type is provided on Figure 48 and diagnostic summary of crash characteristics is presented on Figure 50. Most frequent crash type is a broadside. It constitutes $52 \%$ of all crashes, which suggest some potential for crash reduction. Distribution of broadsides by direction is provided on Figure 49. Five pole-mounted signal heads were observed, installing additional pole mounted head on left side facing eastbound traffic will improve visibility of signal indications.

Yellow plus all red change intervals observed in the field reflect local practices and are in concert with nominal values recommended by the ITE Traffic Engineering Handbook, however in light of observed broadside pattern increasing optional red clearance to 2 seconds may be considered. Even a moderate reduction in the number of broadside
crashes will be highly cost-effective, since this modification will only require limited amount of staff time and no additional hardware.


Figure 48 Distribution of Accidents by Type


Figure 49 Distribution of Broadsides by Direction


Figure $5016^{\text {th }}$ St and Central Diagnostic Summary
Supplemental no left turn signs can be placed on the poles for the eastbound traffic on Lincolnway. Existing no left turn sign on gantry is somewhat obscured by the signal heads (Figure 51) and other signs and may be overlooked by the eastbound drivers.


Figure 51 Eastbound LincoInway

We observed tire tracks reflecting wrong way right turn from westbound Lincolnway onto Central (Figure 52). Placing one way in addition to no right turn on the pole will be an effective measure to reduce this driver error.


Figure 52 Tire Track Right Turn Wrong Way on westbound Lincolnway

$5^{\text {Th }}$ and Deming - Potential Crash Reduction Score 55<br>W. $5^{\text {th }} A D T_{1}=5981$, Deming Dr. $A D T_{2}=5,662$<br>Expected Total 2 acc/ year, Observed 4.3 acc /year, Expected Inj.,1 acc/year, Observed 1.8 acc/year



Figure 53 W $5^{\text {th }}$ and Deming (NW-SE) Drive Layout
W $5^{\text {th }}$ St and Deming is a 4-leg 2-way stop controlled intersection. Over the study period this location experienced 27 accidents, 12 of which resulted in injuries. 19 of the observed crashes are broadsides. Distribution of accidents by type is presented on Figure 54 and diagnostic summary of crash characteristics is presented on Figure 55. Direct diagnostic analysis shows elevated severity of crashes and a strong pattern of broadsides. High severity of broadsides at this location suggests a high potential for cost effective intervention.

Considering that traffic volumes on $W 5^{\text {th }}$ and Deming are substantially similar in concert with a strong broadside pattern this location lends itself well to 4-way stop operations. According to the Manual on Uniform Traffic Control Devices (MUTCD) multi-way control can be useful as a safety measure if certain conditions exist, specifically where the volume of traffic on the intersecting roads is approximately equal. Additionally, Criteria B of Section 2B.07 of the MUTCD Five or more reported crashes in a 12 months period that are susceptible to correction by a multiway stop installation is met at this location and possibly Criteria C Minimum Volumes (300 vehicles per hour for any 8 hours).


Figure 54 W $5^{\text {th }}$ and Deming Drive Distribution of Accidents by Type

| DiExSys ${ }^{\text {TM }}$ Safety Systems <br> Direct Diagnostics (Spot Location) Analysis |  |  |  | Job\#: | 01/17/2010 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Highway Class: Colorado - Urban 2-Lane Divided Unsignalized 4-Leg Intersections |  |  | Cutoff: |  | 3 Acc's@ $95 \%$ |
| Statewide Average |  |  | This L | cation - | Probability |
| CATEGORY | \# ACC's | \% | \# ACC's | \% | \% |
| Property Damage Only (PDO) | 807 | 73.70\% | 15 | 55.56\% | 3.17\% |
| Injury (INJ) | 285 | 26.03\% | 12 | 44.44\% | 98.89\% |
| Fatal (FAT) | 3 | 0.27\% | 0 | 0.00\% | N/A |
| Persons Injured | 401 |  | 19 |  |  |
| Persons Killed | 3 |  | 0 |  | N/A |
| Single Vehicle Accidents | 113 | 10.32\% | 2 | 7.41\% | 46.25\% |
| Two Vehicle Accidents | 915 | 83.56\% | 21 | 77.78\% | 27.71\% |
| Three or More Vehicle Accidents | 63 | 5.75\% | 4 | 14.81\% | 98.24\% |
| Unknown Number of Vehicles | 4 | 0.37\% | 0 | 0.00\% | N/A |
| On Road | 998 | 91.14\% | 0 | 0.00\% | N/A |
| Off Road | 96 | 8.77\% | 0 | 0.00\% | N/A |
| Off Road Left | 32 | 2.92\% | 0 | 0.00\% | NIA |
| Off Road Right | 62 | 5.66\% | 0 | 0.00\% | N/A |
| Off Road at Tee | 1 | 0.09\% | 0 | 0.00\% | NJA |
| Off Road in Median | 1 | 0.09\% | 0 | 0.00\% | NIA |
| Unknown Road Location | 1 | 0.09\% | 27 | 100.00\% | 100.00\% |
| Overturning | 13 | 1.19\% | 0 | 0.00\% | N/A |
| Other Non Collision | 6 | 0.55\% | 0 | 0.00\% | NIA |
| School Age Pedestrians | 2 | 0.18\% | 0 | 0.00\% | N/A |
| All Other Pedestrians | 9 | 0.82\% | 1 | 3.70\% | 97.93\% |
| Broadside | 319 | 29.13\% | 19 | 70.37\% | 100.00\% |
| Head On | 4 | 0.37\% | 0 | 0.00\% | NIA |
| Rear End | 305 | 27.85\% | 5 | 18.52\% | 19.52\% |

Figure 55 Diagnostic Summary of Crash Characteristics

Small 30" stop signs were observed during filed visit, eastbound stop sign was well off the traveled way (Figure 56). Southwest corner sight triangle was obstructed by retaining wall (Figure 56). To improve compliance with stop sign on $W 5^{\text {th }}$ we recommend replacing existing 30 " stop signs with 48 " and constructing a raised channelizing island with stop sign for the eastbound traffic.


Figure 56 W $5^{\text {th }}$ Eastbound Approach to Deming
If following engineering study the decision is made to convert this intersection to multiway operation Table 16 provides results of Benefit/Cost (B/C) sensitivity analysis as a guide to expenditures and anticipated safety improvements. According to the FHWA Desktop Reference for Crash Reduction Factors (Report No. FHWA-SA-07-015 USDOT, FHWA) conversion to all-way operations from 2-way stop control is associated with $60 \%$ reduction in all crashes. Our analysis assumes that a raised median will be constructed on the eastbound approach of W $5^{\text {th }}$ St and both approaches on Deming. Considering that some uncertainty exists about actual cost of construction and anticipated accident reductions Table 16 provides Benefit/Cost ratios for the cost of construction in the $\$ 100.000$ to $\$ 150,000$ range. Detailed life-cycle benefit cost analysis for the minimum and maximum B/C ratios is provided in Tables 17 and 18.

| Cost of Construction-Conversion to <br> All-Way and Raised Islands | B/C for 60\% Crash reduction |
| :---: | :---: |
| $\$ 100,000$ | 13.04 |
| $\$ 150,000$ | 8.06 |

Table 16 Life Cycle Benefit/Cost Sensitivity Analysis for Cost of Raised Island and Larger Stop Signs


Table 17 Details of B/C Analysis for Maximum B/C Ratio


Table 18 Details of B/C Analysis for Minimum B/C Ratio


Figure 56-19 ${ }^{\text {th }}$ St and Converse Layout
$19^{\text {th }}$ St and Converse Ave is a 4-leg divided signalized intersection oriented on approximately 70 degree skew. Signal design is a mast arm configuration, with 12 inch LED heads and back plates on all approaches. There is no separate left turn phase on $19^{\text {th }} \mathrm{St}$, left turn phasing operates as permitted only (Figure 57). Left turns from Converse operate on permitted-protected phasing. Over the study period this location experienced 44 accidents only 9 of which resulted in injuries. Distribution of accidents by type is provided in Figure 58. Diagnostic summary of crash characteristics is provided on Figure 59. Broadside crashes are overrepresented and approach turn crashes are elevated.

Yellow plus all red change intervals observed in the field reflect local practices and are in concert with nominal values recommended by the ITE Traffic Engineering Handbook, however in light of observed broadside pattern increasing optional red clearance to 2 seconds may be considered. Even a moderate reduction in the number of broadside crashes will be highly cost-effective, since this modification will only require limited amount of staff time and no additional hardware.


Figure 57-19 ${ }^{\text {th }}$ St Eastbound View


Figure 58-19 ${ }^{\text {th }}$ St and Converse Distribution of Accidents by Type

| DiExSys ${ }^{\text {TM }}$ Safety Systems <br> Direct Diagnostics (Spot Location) Analysis |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Highway Class: Urban 4-Lane Divided Signalized 4-Leg | ersections |  |  | toff: | 3 Acc's @ 95\% |
| -Baseline Statistics | Statewide | Average | This Lo | ocation | Probability |
| CATEGORY | \# ACC's | \% | \# ACC's | \% | \% |
| Property Damage Only (PDO) | 35,506 | 68.78\% | 35 | 79.55\% | 96.05\% |
| Injury (INJ) | 15,982 | 30.96\% | 9 | 20.45\% | 8.61\% |
| Fatal (FAT) | 138 | 0.27\% | 0 | 0.00\% | N/A |
| Persons Injured | 24,351 |  | 24 |  |  |
| Persons Killed | 142 |  | 0 |  | N/A |
| Single Vehicle Accidents | 3.443 | 6.67\% | 1 | 2.27\% | 19.89\% |
| Two Vehicle Accidents | 41,898 | 81.16\% | 41 | 93.18\% | 99.36\% |
| Three or More Vehicle Accidents | 6,120 | 11.85\% | 2 | 4.55\% | 9.32\% |
| Unknown Number of Vehicles | 165 | 0.32\% | 0 | 0.00\% | N/A |
| On Road | 49,405 | 95.70\% | 0 | 0.00\% | N/A |
| Off Road | 2,096 | 4.06\% | 0 | 0.00\% | N/A |
| Off Road Left | 770 | 1.49\% | 0 | 0.00\% | N/A |
| Off Road Right | 1,294 | 2.51\% | 0 | 0.00\% | N/A |
| Off Road at Tee | 18 | 0.03\% | 0 | 0.00\% | N/A |
| Off Road in Median | 14 | 0.03\% | 0 | 0.00\% | N/A |
| Unknown Road Location | 125 | 0.24\% | 44 | 100.00\% | 100.00\% |
| Overturning | 205 | 0.40\% | 0 | 0.00\% | N/A |
| Other Non Collision | 218 | 0.42\% | 0 | 0.00\% | N/A |
| School Age Pedestrians | 94 | 0.18\% | 0 | 0.00\% | N/A |
| All Other Pedestrians. | 815 | 1.58\% | 0 | 0.00\% | N/A |
| Broadside | 7,963 | 15.42\% | 14 | 31.82\% | $99.83 \%$ - |
| Head On | 299 | 0.58\% | 0 | 0.00\% | N/A |
| Rear End | 23,351 | 45.23\% | 13 | 29.55\% | 2.48\% |
| Sideswipe (Same Direction) | 3,994 | 7.74\% | 3 | 6.82\% | 55.40\% |
| Sideswipe (Opposite Direction) | 311 | 0.60\% | 0 | 0.00\% | N/A |
| Approach Turn | 10,014 | 19.40\% | 12 | 27.27\% | 92.97\% |

Figure 59-19 ${ }^{\text {th }}$ St and Converse Diagnostic Summary
During field visit vehicles were observed blocking $19^{\text {th }}$ St and Pershing during the red phase on Converse (Figure 60). Stacking overflows contribute to driver frustration and broadside potential. Traffic signal phasing on Converse, $19^{\text {th }}$, Pershing and signalized access at Coles shopping center should be reexamined in concert and if possible modified to minimize blocking on Converse. Additionally excessively long curb cut on $19^{\text {th }}$ for Hollywood Video invites lefts in and out which contributes to broadside potential (Figure 61). The curb cut into Hollywood Video should be reduced by extending the curb well to the west of the nose of raised median on $19^{\text {th }} \mathrm{St}$. This way it will operate as right in/right out only as was originally intended.

All but one approach turn crashes occurred on $19^{\text {th }}$ St., which operates under permitted phasing only. Introduction of permitted/protected left turn phasing is expected to significantly reduce approach turn crashes at $19^{\text {th }}$ St and Converse. Table 19 provides detailed life cycle benefit/cost analysis related to introduction of protected/permitted phasing for the left turns on $19^{\text {th }} \mathrm{St}$, it shows that it is highly cost-effective from the safety stand point.


Figure 60 - Stacking Overflow on Converse


Figure 61 - Long Curb Cut for Hollywood Video

Location: Accident History for 19 TH and CONvERSE
Benefit Cost Ratio Calculations

| Accidents |  | Projected Accidents and Reduction Factors |  |  |  | Other Information |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PDO: | 8 | Weighted PDO: | 1.64 | 30\% | ARF for PDO | Cost of PDO: | \$ | 7,500 |
| INJ: | 4 | Weighted INJ: | 0.82 | 30\% | :ARF for INJ | Cost of INJ: | \$ | 61,600 |
| FAT: | 0 | Weighted FAT: | 0.00 | 30\% | :ARF for FAT | Cost of FAT: | \$ 1, | 130,000 |
|  |  | B/C Weighted Year Factor: | 6.00 | 30\% | Weighted ARF | Interest Rate: | 5\% |  |
|  |  |  |  |  |  | Growth Factor: | 2.0\% |  |
|  | cost: | \$ 10,000 |  |  |  | Service Life: | 20 |  |
|  | From: | : 01/01/2002 |  |  |  | covery Factor: | 0.080 |  |
|  | To: | : 12/31/2007 | s: 2 |  |  | tenance Cost: |  | 0 |

Benefit Cost Ratio: $\quad 23.45$
Type of Improvement: permitted-protected left on 19th
Special Notes:

## Table 19 Life Cycle Benefit Cost for Protected-Permitted Left on 19 ${ }^{\text {th }}$

If decision is made to introduce protected-permitted phasing on $19^{\text {th }}$ then it should be coordinated with revised phasing plan for Converse, $19^{\text {th }}$, Pershing and signalized access at Coles shopping center.

In the final phase of the project we were informed that the City is planning to reconstruct this intersection as a five-leg modern roundabout. When proposed roundabout is constructed it is expected to effectively mitigate all of the issues discussed above.

Four Mile and Yellowstone - Potential Crash Reduction Score 48 $A D T_{1}=6,140, A D T_{2}=2,796$; Expected Total 1.5/year, Observed 2.17/year, Expected Inj.0.68/year, Observed 1.5/year


Figure 62 - Four Mile and Yellowstone Layout
Yellowstone Rd and Four Mile Rd is a 4-leg 2-way stop controlled intersection. Over the study period this location experienced 13 accidents, 9 of which resulted in injuries. Ten (10) out 13 accidents are broadsides, distribution of crashes by type is presented on Figure 63. Diagnostic summary of crash characteristics is presented on Figure 65, it shows elevated severity of crashes and a strong pattern of broadsides. Field observations are as follows: stop sign for the eastbound Four Mile is placed too far back from intersection, street name size are small reflecting county standards, left turn bays striping faded, speed limit in the vicinity of intersection on Yellowstone is 40 mph , on Four Mile 50 mph east of Yellowstone and 40 mph west of Yellowstone.

According to WYDOT speed limit on Yellowstone was lowered down to 40 mph from 55 around 2005/2006, amber flashing beacons were installed at the same time (Figure 64). Crash history shows that number of broadside crashes since late 2005 is significantly reduced (Figure 66), which may reflect safety improvements related to lowering of the speed limit. It is important, however, to continue to monitor accident history at this location to ensure that reduction in broadsides is not simply result of regression to the mean. Additionally, installing raised channelizing islands on Four Mile may be considered in concert with installation of larger stop signs (48") and flashing beacons. Constructing raised islands on Four Mile will improve site distance by encouraging drives to stop closer to Yellowstone and reduce exposure for the left turning and through traffic on Four Mile. Additionally it will improve channelization and emphasize the need to stop.


Figure 63 Four Mile and Yellowstone Distribution of Accidents by Type


Figure 64 Speed Limit Sign on Yellowstone

| DiExSys ${ }^{\text {TM }}$ Safety Systems |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Highway Class: Urban 4-Lane Divided Unsignalized 4-Leg Intersections |  |  |  | off: | 3 Acc's @ 95\% |
| - Baseline Statistics | Statewide | verage | This L | ation | Probability |
| CATEGORY | \# ACC's | \% | \# ACC's | \% | \% |
| Property Damage Only (PDO) | 12,919 | 70.45\% | 4 | 30.77\% | 0.36\% |
| Injury (INJ) | 5,343 | 29.14\% | 9 | 69.23\% | 99.95\% |
| Fatal (FAT) | 76 | 0.41\% | 0 | 0.00\% | N/A |
| Persons Injured | 7.941 |  | 14 |  |  |
| Persons Killed | 83 |  | 0 |  | N/A |
| Single Vehicle Accidents | 1,861 | 10.15\% | 2 | 15.38\% | 86.17\% |
| Two Vehicle Accidents | 14,239 | 77.65\% | 11 | 84.62\% | 82.31\% |
| Three or More Vehicle Accidents | 2,169 | 11.83\% | 0 | 0.00\% | N/A |
| Unknown Number of Vehicles | 69 | 0.38\% | 0 | 0.00\% | N/A |
| On Road | 16,944 | 92.40\% | 0 | 0.00\% | N/A |
| Off Road | 1,355 | 7.39\% | 0 | 0.00\% | N/A |
| Off Road Left | 482 | 2.63\% | 0 | 0.00\% | N/A |
| Off Road Right | 852 | 4.65\% | 0 | 0.00\% | N/A |
| Off Road at Tee | 14 | 0.08\% | 0 | 0.00\% | N/A |
| Off Road in Median | 7 | 0.04\% | 0 | 0.00\% | N/A |
| Unknown Road Location | 39 | 0.21\% | 13 | 100.00\% | 100.00\% |
| Overturning | 131 | 0.71\% | 0 | 0.00\% | N/A |
| Other Non Collision | 108 | 0.59\% | 0 | 0.00\% | N/A |
| School Age Pedestrians | 26. | 0.14\% | 0 | 0.00\% | N/A |
| All Other Pedestrians | 307 | 1.67\% | 0 | 0.00\% | N/A |
| Broadside | 3,946 | 21.52\% | 10 | 76.92\% | 100.00\% |

Figure 65 Four Mile and Yellowstone Diagnostic Summary


Figure 66 Broadside by Time

If more current crash data shows that broadside problem remains and the decision is made to provide improvements of raised channelizing islands and larger stop signs with flashing beacons, we offer the following 2-way sensitivity analysis of Benefit/Cost (B/C) ratios as a guide to expenditures and anticipated safety improvements. Considering that some uncertainty exists about actual cost of construction and anticipated accident reductions Table 20 provides Benefit/Cost ratios relating different construction costs with broadside reduction in the $30 \%-50 \%$ range. This analysis also takes into account that minor widening may be required to construct raised islands.

| Cost of <br> Construction of <br> Channelizing <br> Islands | B/C Ratio for 30\% <br> Reduction in <br> Broadside <br> Crashes | B/C Ratio for 40\% <br> Reduction in <br> Broadside <br> Crashes | B/C Ratio for 50\% <br> Reduction in <br> Broadside <br> Crashes |
| :---: | :---: | :---: | :---: |
| $\$ 100,000$ | 3.1 | 4.1 | 5.1 |
| $\$ 150,000$ | 2.0 | 2.7 | 3.4 |

Table 20 Benefit/Cost Sensitivity Analysis

Table 21 provides details of life cycle benefit analysis for minimum and maximum values of $B / C$.


Table 21 Minimum B/C Calculations


Table 22 Minimum B/C Calculations
Constructing raised channelizing islands is cost effective if cost of construction does not exceed $\$ 150,000$, larger stop signs with flashing beacons is expected to be cost effective from crash reduction stand point.


Figure 67 Speed Limit (40 mph with Flashing Beacon) Sign Post Base

Additionally post dimensions on speed limit sign with flashing beacon should be measured and if necessary drill holes to ensure breakaway characteristics, no drilled holes were observed in the field (Figure 67). Street name signs should be made larger to improve their readability and lowering of speed limit to 40 from 50 west of Yellowstone can be considered.


Figure 68 E Lincolnway and Ridge Layout

Junction of E Lincolnway and Ridge Rd. is a four-leg, divided signalized intersection. Signal design is a mast arm configuration, with 12 inch LED heads and back plates on all approaches. Signal heads are well aligned with lanes, left turn phasing on all approaches is permitted only. Over the study period this location experienced 38 accidents, 16 of which resulted in injury and 1 in fatality. Distribution of crashes by accident type is presented on Figure 69 and diagnostic summary of crash characteristics is presented on Figure 70. Direct diagnostic analysis shows patterns of broadside crashes and of elevated severity, which suggests a potential for crash reduction. Distribution of broadside crashes by direction is presented in Figure 71.

Field observations are as follows: yield sign for the eastbound right has a square do not enter sign behind it which may detract from shape recognition of the yield, yield and do not enter signs appear to have low retroreflectivity, left turn demand observed during field visit was significant (Figure 72), lane use control symbol markings on Ridge Rd. were worn out.


Figure 69 E Lincolnway and Ridge Distribution of Accidents by Type


Figure 70 E Lincolnway and Ridge Diagnostic Summary


Figure 71 E Lincolnway and Ridge Distribution of Broadside Crashes by Direction


Figure 72 Left Turn Queue on Ridge

Yellow plus all red change intervals observed in the field reflect local practices and are in concert with nominal values recommended by the ITE Traffic Engineering Handbook, however in light of the observed broadside pattern increasing optional red clearance to 2 seconds may be considered. Even a moderate reduction in the number of broadside crashes will be highly cost-effective, since this modification will only require limited amount of staff time and no additional hardware. Considering elevated severity of crashes lowering of speed limit on Lincolnway may be effective

Even though the frequency of left turn crashes experienced during study period is not abnormal, in light of observed left turn demand introduction of permitted-protected phasing may be considered as a preemptive measure. Additionally, improvements in retroreflectivity of signs, separation of yield and do not enter for the eastbound right, and new symbol markings for lane use control are recommended.


Figure 73 Logan and Pershing Layout
Junction of E Pershing Blvd. and Logan Ave. is a 3-leg, divided signalized intersection. Signal design is a mast arm configuration with 12 inch LED heads and back-plates, left turn phasing on E Pershing operates as permitted only (Figure 74). Over the study period this location experienced 23 accidents, 7 of which resulted in injury. Distribution of accidents by type is presented on Figure 75 and Diagnostic Summary of crash characteristics is presented on Figure 77. Direct diagnostic analysis shows a pattern of approach turn crashes, which suggests a potential for crash reduction.


Figure 74 Westbound Left Turn Signal Head on Pershing


Figure 75 Logan and Pershing Distribution of Accidents by Type
Approach turn and sideswipe opposite crashes are overrepresented. 3 Sideswipe opposite crashes in 6 years are PDO only with EB vehicle at fault. Approach turn crashes are observed predominantly in the afternoon (Figure 76).


Figure 76 Logan/Pershing Distribution of Approach Turn Crashes by Time of Day

| DiExSys ${ }^{\text {TM }}$ Safety Systems <br> Direct Diagnostics (Spot Location) Analysis |  |  |  | Job\#: | $11 / 03 / 2009$ 20091103172656 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Highway Class: Urban 4-Lane Divided Signalized 3-Leg intersections |  |  | Cutoff: |  | 3 Acc's @ 95\% |
| - Baseline Statistics | Statewide | Average | This L | cation | Probability |
| CATEGORY | \#ACC's | \% | \# ACC's | \% | \% |
| Property Damage Only (PDO) | 7,218 | 67.90\% | 23 | 76.67\% | 89.24\% |
| Injury (INJ) | 3,378 | 31.78\% | 7 | 23.33\% | 21.55\% |
| Fatal (FAT) | 34 | 0.32\% | 0 | 0.00\% | N/A |
| Persons Injured | 5,243 |  | 13 |  |  |
| Persons Killed | 34 |  | 0 |  | N/A |
| Single Vehicle Accidents | 770 | 7.24\% | 2 | 6.67\% | 62.83\% |
| Two Vehicle Accidents | 8,403 | 79.05\% | 23 | 76.67\% | 44.43\% |
| Three or More Vehicle Accidents | 1,416 | 13.32\% | 5 | 16.67\% | 79.76\% |
| Unknown Number of Vehicles | 41 | 0.39\% | 0 | 0.00\% | N/A |
| On Road | 10,063 | 94.67\% | 0 | 0.00\% | N/A |
| Off Road | 534 | 5.02\% | 0 | 0.00\% | N/A |
| Off Road Left | 180 | 1.69\% | 0 | 0.00\% | N/A |
| Off Road Right | 341 | 3.21\% | 0 | 0.00\% | N/A |
| Off Road at Tee | 12 | 0.11\% | 0 | 0.00\% | N/A |
| Off Road in Median | 1 | 0.01\% | 0 | 0.00\% | N/A |
| Unknown Road Location | 33 | 0.31\% | 30 | 100.00\% | 100.00\% |
| Overturning | 65 | 0.61\% | 0 | 0.00\% | N/A |
| Other Non Collision | 52 | 0.49\% | 0 | 0.00\% | N/A |
| School Age Pedestrians | 20 | 0.19\% | 0 | 0.00\% | N/A |
| All Other Pedestrians | 140 | 1.32\% | 1 | 3.33\% | 94.08\% |
| Broadside | 1,425 | 13.41\% | 2 | 6.67\% | 21.41\% |
| Head On | 70 | 0.66\% | 0 | 0.00\% | N/A |
| Rear End | 5,188 | 48.81\% | 8 | 26.67\% | 1.14\% |
| Sideswipe (Same Direction) | 715 | 6.73\% | 1 | 3.33\% | 39,17\% |
| Sideswipe (Opposite Direction) | 79 | 0.74\% | 3 | 10.00\% | 99.99\% |
| Approach Turn | 2,003 | 18.84\% | 14 | 46.67\% | 99.99\% 4 |

Figure 77 Logan and Pershing Diagnostic Summary

A pattern of approach turn crashes can be effectively addressed by modifying existing left turn phasing. Fully protected left turn is preferred. Protected-permitted can be used, but only if a 4-Face signal head with flashing yellow left arrow is installed. When WB indication turns read while EB remains green a red left turn arrow must be used to avoid a yellow trap. Additionally signal heads and traffic control cabinet at this location will need to be upgraded. When new signal phasing plan is developed it will be coordinated with signal phasing at Concord just to the west, as it is currently wired together with Logan and Pershing and operates as one intersection. Additionally installing programmable visibility heads for eastbound traffic at Logan and westbound traffic at Concord will be evaluated by the City. Table 23 provides benefit/cost ratio associated with introducing protected or protected-permitted phasing at Logan and Pershing and upgrading of the signals, it is based on crash reduction (approach turn only) of $50 \%$ and cost of signal upgrades of $\$ 20,000$.

| Cost of Signal Upgrades and Signal <br> Head Modification | Benefit/Cost Ratio based on 50\% Crash <br> Reduction for Approach Turns Only |
| :---: | :---: |
| $\$ 20,000$ | 20.5 |

Table 23 B/C Analysis for Signal Upgrades and Signal Heads Modification

Introduction of protected or protected/permitted left turn phasing in concert with signal upgrades at this location is highly effective from safety stand point. Table 24 provides details of life cycle benefit costs analysis.


Table 24 Life Cycle Details of Benefit/Cost Analysis for Signal Upgrades and Permitted/Protected Phasing


Figure 78 Central and Pershing Layout
Central Ave. and Pershing Blvd. is a four-leg signalized intersection with Central Ave. operating as a one-way in the southbound direction. Over the study period this location experienced 53 crashes 10 of which resulted in injuries. Distribution of crashes by crash type is presented on Figure 79 and diagnostic summary of crash characteristics is provided on Figure 81. Crash patterns of broadsides and overtaking turns are observed in the accident history at this location, which suggests a potential for crash reduction.

Field observations are as follows: signal head facing southbound traffic can be moved west to improve visibility, side mounted signal heads can also be adjusted for better visibility, lane control sign on the north leg is missing a separator line between the two through lanes and the word "only" should be placed under the through only lane arrow (Figure 80), line of sight to lane control sign in the south bound direction is obscured by trees.

Broadsides represent $56 \%$ of all crashes at this intersection ( 30 out 53 ), which is notably higher than expected, distribution of broadside crashes by direction is presented on Figure 82. Overtaking turns at $8 \%$ of the total (4 out 53) are over-represented, none of them however resulted in injuries over 6 years of the study period, distribution of overtaking turn crashes by direction is presented on Figure 83.


Figure 79 Central and Pershing Distribution of Accidents by Type


Figure 80 Lane Control Sign for Southbound Approach on Central
DiExSys ${ }^{\text {TM }}$ Safety Systems
Direct Diagnostics (Spot Location) Analysis
V2009.10.17

| Highway Class: Urban 4-Lane Divided Signalized 4-Leg intersections |  |  | Cutoff: |  | 3 Acc's @ 95\% |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - Baseline Statistics | Statewid | Average | This L | cation | Probability |
| CATEGORY | \# ACC's | \% | \# ACC's | \% | \% |
| Property Damage Only (PDO) | 35,506 | 68.78\% | 43 | 81.13\% | 98.52\% ${ }^{\text {® }}$ |
| Injury (INJ) | 15,982 | 30.96\% | 10 | 18.87\% | 3.54\% |
| Fatal (FAT) | 138 | 0.27\% | 0 | 0.00\% | N/A |
| Persons Injured | 24,351 |  | 21 |  |  |
| Persons Killed | 142 |  | 0 |  | N/A |
| Single Vehicle Accidents | 3,443 | 6.67\% | 2 | 3.77\% | 30.48\% |
| Two Vehicle Accidents | 41,898 | 81.16\% | 41 | $77.36 \%$ | 28.87\% |
| Three or More Vehicle Accidents | 6,120 | 11.85\% | 10 | 18.87\% | 95.58\% ${ }^{\text {a }}$ |
| Unknown Number of Vehicles | 165 | 0.32\% | 0 | 0.00\% | N/A |
| On Road | 49,405 | 95.70\% | 0 | 0.00\% | N/A |
| Off Road | 2,096 | 4.06\% | 0 | 0.00\% | N/A |
| Off Road Left | 770 | 1.49\% | 0 | 0.00\% | N/A |
| Off Road Right | 1,294 | 2.51\% | 0 | 0.00\% | N/A |
| Off Road at Tee | 18 | 0.03\% | 0 | 0.00\% | N/A |
| Off Road in Median | 14 | 0.03\% | 0 | 0.00\% | N/A |
| Unknown Road Location | 125 | 0.24\% | 53 | 100.00\% | 100.00\% |
| Overturning | 205 | 0.40\% | 0 | 0.00\% | N/A |
| Other Non Collision | 218 | 0.42\% | 0 | 0.00\% | N/A |
| School Age Pedestrians | 94 | 0.18\% | 0 | 0.00\% | N/A |
| All Other Pedestrians | 815 | 1.58\% | 1 | 1.89\% | 79.60\% |
| Broadside | 7.963 | 15.42\% | 30 | 56.60\% | 100.00\% |
| Head On | 299 | 0.58\% | 0 | 0.00\% | N/A |
| Rear End | 23,351 | 45.23\% | 11 | 20.75\% | 0.02\% |
| Sideswipe (Same Direction) | 3,994 | 7.74\% | 1 | 1.89\% | 7.63\% |
| Sideswipe (Opposite Direction) | 311 | 0.60\% | 0 | 0.00\% | N/A |
| Approach Turn | 10,014 | 19.40\% | 4 | 755\% | 1.53\% |
| Overtaking Turn | 553 | 1.07\% | 4 | 755\% | 99.97\% 4 |

Figure 81 Central and Pershing Diagnostic Summary


Figure 82 Central and Pershing Distribution of Broadsides by Direction


Figure 83 Central and Pershing Distribution of Overtaking Turn Crashes by Direction

Yellow plus all red change intervals observed in the field reflect local practices and are in concert with nominal values recommended by the ITE Traffic Engineering Handbook, however in light of the observed broadside pattern increasing optional red clearance to 2 seconds may be considered. Even a moderate reduction in the number of broadside crashes will be highly cost-effective, since this modification will only require limited amount of staff time and no additional hardware. Additionally, line of sight to traffic signal heads should be examined during the foliage season to ensure that visibility is not obstructed by trees and bushes.

To address a pattern of overtaking turn crashes the following may be considered: Add lane control signing to mast arm for southbound traffic or provide advance signing on overhead wire, rebalance lane width with new striping, provide markings extensions through intersection to reflect offset lane lines on Central, add lane use pavement markings in all 3 SB lanes and advance street name sign on Central north of Pershing.

20th and Logan - Potential Crash Reduction Score 40 $A D T_{1}=7,687, A D T_{2}=5$,852; Expected Total 2.28/year, Observed 4/year, Expected Inj.,0.63/year, Observed 1.33/year



Figure 84 Logan and $\mathbf{2 0}{ }^{\text {th }}$ Layout (Logan N-S)
Logan and $20^{\text {th }}$ St is a four-leg signalized intersection, $20^{\text {th }}$ street operates as a one way west of Logan. Although signal lenses are LED, signal heads are a combination of 8 and 12 inches. Over the study period this location has experienced 24 accidents, 8 of which resulted in injuries. Distribution of accidents by type is presented on Figure 85 and diagnostic summary of crash characteristics is presented on Figure 86. A strong pattern of broadside crashes is observed, which suggests a potential for crash reduction.

Field observations are as follows: this is an older signal, streets signs on $20^{\text {th }}$ are hard to read, no ADA ramp in the north-west corner, traffic signal controller cabinet is squeezed in and in poor location, back plates are not on all signal heads, north bound signal heads may be difficult to see because of upgrade in the north bound direction. NB to WB sight triangle is obstructed and might contribute to broadsides, so NB signal visibility and clearance at the end of NB phase are critical.

Elevated frequency of broadsides represent most abnormal characteristic of safety performance at this location. In most cases when broadside crash occurs northbound vehicle is at fault (75\%) (Figure 87), which may possibly be related to signal head visibility. Some of the LED signal heads facing northbound traffic are 8" and without back plates, (Figure 88) they may be difficult to see because of the upgrade on the northbound approach. To improve signal head visibility we recommend replacing all signal heads with 12", with back plates and filed adjusting the tilt to ensure maximum head visibility in the northbound direction.


Figure 85 Logan and $20^{\text {th }}$ Distribution of Accidents by Type

Yellow plus all red change intervals observed in the field reflect local practices and are in concert with nominal values recommended by the ITE Traffic Engineering Handbook, however in light of the observed broadside pattern increasing optional red clearance to 2 seconds may be considered. Even a moderate reduction in the number of broadside crashes will be highly cost-effective, since this modification will only require limited amount of staff time and no additional hardware. Additionally relocation and replacement of traffic controller cabinet, upgrading of street signs on $20^{\text {th }}$ St. and construction of ADA ramp in the NW corner during next scheduled overlay should be considered. Additionally in light of relatively low volumes it is not clear if signal warrants are currently met at this location, if following a signal warrant study requisite volume warrants are not met the feasibility of roundabout at this location should be examined.

| DiExSys ${ }^{\text {TM }}$ Safety Systems  11/03/2009  <br> V2009.10.17 Direct Diagnostics (Spot Location) Analysis Job\# 20091103183402 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Highway Class: Urban 4-Lane Divided Signalized 4-Leg | rsections |  | Cutoff: |  | 3 Acc's @ 95\% |
| - Baseline Statistics - | Statewide Average |  | This Lo | cation | Probability |
| CATEGORY | \# ACC's | \% | \# ACC's | \% | \% |
| Property Damage Only (PDO) | 35,506 | 68.78\% | 16 | 66.67\% | 48.77\% |
| Injury (INJ) | 15,982 | 30.96\% | 8 | 33.33\% | 68.91\% |
| Fatal (FAT) | 138 | 0.27\% | 0 | 0.00\% | N/A |
| Persons Injured | 24,351 |  | 11 |  |  |
| Persons Killed | 142 |  | 0 |  | N/A |
| Single Vehicle Accidents | 3,443 | 6.67\% | 0 | 0.00\% | N/A |
| Two Vehicle Accidents | 41,898 | 81.16\% | 22 | 91.67\% | 95.62\% |
| Three or More Vehicle Accidents | 6,120 | 11.85\% | 2 | 8.33\% | 44.62\% |
| Unknown Number of Vehicles | 165 | 0.32\% | 0 | D.00\% | N/A |
| On Road | 49,405 | 95.70\% | 0 | 0.00\% | N/A |
| Off Road | 2,096 | 4.06\% | 0 | 0.00\% | N/A |
| Off Road Left | 770 | 1.49\% | 0 | 0.00\% | N/A |
| Off Road Right | 1,294 | 2.51\% | 0 | 0.00\% | N/A |
| Off Road at Tee | 18 | 0.03\% | 0 | 0.00\% | N/A |
| Off Road in Median | 14 | 0.03\% | 0 | 0.00\% | N/A |
| Unknown Road Location | 125 | 0.24\% | 24 | 100.00\% | 100.00\% |
| Overturning | 205 | 0.40\% | 0 | 0.00\% | N/A |
| Other Non Collision | 218 | 0.42\% | 0 | D.00\% | N/A |
| School Age Pedestrians | 94 | 0.18\% | 0 | 0.00\% | N/A |
| All Other Pedestrians | 815 | 1.58\% | 0 | 0.00\% | N/A |
| Broadside | 7,963 | 15.42\% | 46 | 66.67\% | 100.00\% |

Figure 86 Logan and $20^{\text {th }}$ Diagnostic Summary of Crash Characteristics


Figure 87 Logan and $20^{\text {th }}$ Distribution of Broadside crashes by Direction


Figure 88 Signal Heads on Northbound Approach on Logan


Figure 89 Henderson (NW-SE) and Omaha Layout
Henderson and Omaha is a 4 leg, 2 lane divided, un-signalized intersection presently operating as a 2-way stop. Over the study period it experienced 15 accidents, seven of which resulted in injuries. All accidents but one were broadsides, distribution of accidents by type is presented on Figure 90 and diagnostic summary of crash characteristics is presented on Figure 91.

During field visit the following was observed: several vehicles ran stop sign on Henderson, a stop bar on the eastbound approach on Omaha may create confusion, signs at end of raised medians on Henderson obscure stop signs, sight distance to the right on the northbound approach may be obstructed if vehicles are parked in the corner bays facing Omaha.

Considering that traffic volumes on Omaha and Henderson are substantially similar in concert with a strong broadside pattern of accidents we suggest that this location may lend itself well to 4-way operations. According to the Manual on Uniform Traffic Control Devices (MUTCD) multi-way control can be useful as a safety measure if certain conditions exist, specifically where the volume of traffic on the intersecting roads is approximately equal. Additionally, Option Criteria D for multiway stop control installation of Section 2B. 07 Multiway Stop Applications of the MUTCD which applies to Omaha and Henderson reads as follows: "An intersection of two residential neighborhood
collector streets of similar design and operating characteristics where multiway stop control would improve traffic operational characteristics of the intersection."


Figure 90 Henderson and Omaha Distribution of Accidents by Type

| DiExSys ${ }^{\text {TM }}$ Safety Systems Direct Diagnostics (Spot Location) Analysis |  |  |  | Job \#: | 11/03/2009 20091103190622 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Highway Class: Urban 2-Lane Divided Unsignalized 4-Leg Intersections |  |  | Cutoff: |  | 3 Acc's @ 95\% |
| - Baseline Statistics - | Statewide | Average | This Lo | cation | Probability |
| CATEGORY | \#ACC's | \% | \# ACC's | \% | \%. |
| Property Damage Only (PDO) | 807 | 73.70\% | 8 | 53.33\% | 7.22\% |
| Injury (INJ) | 285 | 26.03\% | 7 | 46.67\% | 97.80\% 4 |
| Fatal (FAT) | 3 | 0.27\% | 0 | D.00\% | N/A |
| Persons Injured | 401 |  | 15 |  |  |
| Persons Killed | 3 |  | 0 |  | N/A |
| Single Vehicle Accidents | 113 | 10.32\% | 0 | 0.00\% | N/A |
| Two Vehicle Accidents | 915 | 83.56\% | 15 | 100.00\% | 100.00\% 4 |
| Three or More Vehicle Accidents | 63 | 5.75\% | 0 | 0.00\% | N/A |
| Unknown Number of Vehicles | 4 | 0.37\% | 0 | 0.00\% | N/A |
| On Road | 998 | 91.14\% | 0 | 0.00\% | N/A |
| Off Road | 96 | 8.77\% | 0 | 0.00\% | N/A |
| Off Road Left | 32 | 2.92\% | 0 | 0.00\% | N/A |
| Off Road Right | 62 | 5.66\% | 0 | 0.00\% | N/A |
| Off Road at Tee | 1 | 0.09\% | 0 | 0.00\% | N/A |
| Off Road in Median | 1 | 0.09\% | 0 | 0.00\% | N/A |
| Unknown Road Location | 1 | 0.09\% | 15 | 100.00\% | 100.00\% |
| Overturning | 13 | 1.19\% | 0 | 0.00\% | N/A |
| Other Non Collision | 6 | 0.55\% | 0 | 0.00\% | N/A |
| School Age Pedestrians | 2 | 0.18\% | 0 | 0.00\% | N/A |
| All Other Pedestrians | 9 | 0.82\% | 0 | 0.00\% | N/A |
| Broadside | 319 | 29.13\% | 14 | 93.33\% | 100.00\% |

Figure 91 Henderson and Omaha Diagnostic Summary of Crash Characteristics

If following engineering study the decision is made to convert this intersection to multiway operation Table 25 provides results of 2-way sensitivity analysis of Benefit/Cost (B/C) ratios as a guide to expenditures and anticipated safety improvements. It assumes that a raised median will be constructed on Omaha similar to raised median on Henderson. According to the FHWA Desktop Reference for Crash Reduction Factors (Report No. FHWA-SA-07-015 USDOT, FHWA) conversion to allway operations from 2-way stop control is associated with $60 \%$ reduction in all crashes. Considering that some uncertainty exists about actual cost of construction Table 25 provides Benefit/Cost ratios for the cost of construction in the $\$ 100.000$ to $\$ 150,000$ range. Detailed life-cycle benefit cost analysis for the minimum and maximum B/C ratios is provided in Tables 26 and 27.

| Cost of Construction | B/C for 60\% Reduction of All Crashes |
| :---: | :---: |
| $\$ 100,000$ | 7.5 |
| $\$ 150,000$ | 5.0 |

## Table 25 Benefit/Cost Sensitivity Analysis associated with Conversion to Multiway Operations and Construction of Raised Median on Omaha

Even if raised median is constructed benefit/cost analysis suggests that converting this intersection to multiway operation is highly cost-effective from the safety improvement stand point. Tables 26 and 27 provide details of Benefit/Cost analysis for the minimum and maximum Benefit/Cost ratios.


Table 26 Maximum B/C Ratio Supporting Details

DiExSys ${ }^{\text {TM }}$ Demo Program
01/58/2010

## Benefit Cost (B/C) Calculations

Benefit Cost Ratio Calculations

| Accidents |  | Projected Accidents and Reduction Factors |  |  |  | Other Information |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PDO: | 8 | Weighted PDO: | : 1.64 | 60\% | :ARF for PDO | Cost of PDO: | \$ |  |  |
| INJ: | 7 | Weighted INJ: | : 1.43 | 60\% | :ARF for INJ | Cost of INJ: | \$ |  |  |
| FAT: | 0 | Weighted FAT: | : 0.00 | 60\% | ARF for FAT | Cost of FAT: |  |  |  |
|  | B/C Weighted Year Factor: |  | 6.00 | 60\% | Weighted ARF | Interest Rate: | 5\% |  |  |
|  |  |  | ADT Growth Factor: |  |  | 2.0\% |  |  |
|  | Cost: | : $\quad$ 100,000 |  |  |  |  | Service Life: | 20 |  |  |
|  | From: | : 01/01/2002 |  |  |  | pital Recovery Factor: | 0.080 |  |  |
|  | To: | 12/31/2007 | Days: |  |  | al Maintenance Cost: |  | \$ | 0 |

Benefit Cost Ratio: $\quad 7.52$

Type of Improvement: Conversion to all way operations includes cost raised islands on Omaha Special Notes:

## Table 27 Maximum B/C Ratio Supporting Details

Another design alternative to improve safety at this location is to construct a modern roundabout, although more costly it is expected to result in $60 \%$ crash reduction or greater in addition to providing less delay than a 4-way stop. Considering that some uncertainty exists about actual cost of construction of a roundabout Table 28 provides Benefit/Cost sensitivity analysis for the range of construction costs between \$200,000 and $\$ 300,000$.

| Cost of Construction of Roundabout | B/C Ratio for Crash Reduction 60\% |
| :---: | :---: |
| $\$ 200,000$ | 3.8 |
| $\$ 300,000$ | 2.5 |

## Table 28 B/C Ratio Sensitivity Analysis for Roundabout

Even though construction of the modern roundabout is more costly than 4-way intersection it is highly cost-effective improvement from the safety and mobility stand points. Tables 29 and 30 provide details of life cycle benefit/cost analysis related to the construction of roundabout.


Table 29 Minimum B/C Ratio Analysis Supporting Details for Roundabout


Table 30 Maximum B/C Ratio Supporting Details for Roundabout

## I-180 and I-80 Ramps - Potential Crash Reduction Score 37 <br> Traffic and crash data includes both intersections $A D T_{1}=28,169$ (I-180), $A D T_{2}=2,549$ (Ramps) <br> Expected Total 8.82/year, Observed 10.67/year Expected Inj.,2.78/year, Observed 3.5/year



Figure 92 I-180 and I-80 Ramps Layout
$\mathrm{I}-80$ and $\mathrm{I}-180$ (S. Greeley Highway) is a diamond interchange with 2 signalized intersections. Signal design at both intersections is a mast arm configuration, with 12 inch LED heads and back plates on all approaches. Left turn phasing is permitted for north and southbound left turns on S Greeley Highway. Distribution of accidents by type is provided on Figure 93 and diagnostic summary of crash characteristics is presented on Figure 94. Even though broadside pattern has been identified it is based on accident history for both intersections. Twenty broadside crashes over 6 years at both intersections translates into less than 2 crashes/year per intersection.


Figure 93 Distribution of Accidents by Type

| DiExSys ${ }^{\text {TM }}$ Safety Systems <br> Direct Diagnostics (Spot Location) Analysis |  |  |  | Job\#: | $11 / 03 / 2009$ 20091103195038 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Highway Class: Urban 4-Lane Divided Signalized 4-Leg Intersections |  |  | Cutoff: |  | Acc's@ 95\% |
| - Baseline Statistics | Statewid | Average | This L | cation | Probability - |
| CATEGORY | \# ACC's | \% | \#ACC's | \% | \% |
| Property Damage Only (PDO) | 35,506 | 68.78\% | 43 | 67.19\% | 43.81\% |
| Injury ( $\mathrm{INJ}^{\text {J }}$ ) | 15,982 | 30.96\% | 21 | 32.81\% | 68.06\% |
| Fatal (FAT) | 138 | 0.27\% | 0 | 0.00\% | N/A |
| Persons Injured | 24,351 |  | 37 |  |  |
| Persons Killed | 142 |  | 0 |  | N/A |
| Single Vehicle Accidents | 3,443 | 6.67\% | 8 | 12.50\% | 97.43\% 4 |
| Two Vehicle Accidents | 41,898 | 81.16\% | 54 | 84.38\% | 79.02\% |
| Three or More Vehicle Accidents | 6,120 | 11.85\% | 2 | 3.13\% | 1.43\% |
| Unknown Number of Vehicles | 165 | 0.32\% | 0 | 0.00\% | N/A |
| On Road | 49,405 | 95.70\% | 0 | 0.00\% | N/A |
| Off Road | 2,096 | 4.06\% | 0 | 0.00\% | N/A |
| Off Road Left | 770 | 1.49\% | 0 | 0.00\% | N/A |
| Off Road Right | 1.294 | 2.51\% | 0 | 0.00\% | N/A |
| Off Road at Tee | 18 | 0.03\% | 0 | 0.00\% | N/A |
| Off Road in Median | 14 | 0.03\% | 0 | 0.00\% | N/A |
| Unknown Road Location | 125 | 0.24\% | 64 | 100.00\% | 100.00\% 4 |
| Overturning | 205 | 0.40\% | 2 | 3.13\% | 99.78\% |
| Other Non Collision | 218 | 0.42\% | 2 | 3.13\% | 99.74\% |
| School Age Pedestrians | 94 | 0.18\% | 0 | 0.00\% | N/A. |
| All Other Pedestrians | 815 | 1.58\% | 1 | 1.56\% | 73.19\% |
| Broadside | 7,963 | 15.42\% | 20 | 31.25\% | 99.96\% |
| Head On | 299 | 0.58\% | 2 | 3.13\% | 99.38\% |

Figure 94 I-80 and I-180 Ramp Intersections Diagnostic Summary

During field visit we observed relatively steep downgrades on northbound S Greeley Highway and westbound off ramp from I-80, which may account for the fact that majority of broadsides occurred with northbound or westbound vehicle at fault (Figure 95). Modifying profile grade, however, is not cost effective as a safety improvement project under the circumstances.

Yellow plus all red change intervals observed in the field reflect local practices and are in concert with nominal values recommended by the ITE Traffic Engineering Handbook, however in light of observed broadside pattern increasing optional red clearance to 2 seconds may be considered. Even a moderate reduction in the number of broadside crashes will be highly cost-effective, since this modification will only require limited amount of staff time and no additional hardware.


Figure 95 I-180 and I-80 Ramps Distribution of Broadside Crashes by Direction

## $20^{\text {th }}$ St and Warren - Potential Crash Reduction Score 35.41 (No SPF Prediction Model is Available for Intersection of 2 One-Way Roads)



Figure $96 \mathbf{2 0}^{\text {th }}$ St and Warren Ave Layout
Warren Ave and $20^{\text {th }}$ St is a 4 leg signalized intersection with both streets operating one way. Signal design is a mast arm configuration with 12 " LED heads with back plates on all approaches (Figure 97). A good quality arterial progression on Warren was observed during the field visit. Over the study period this location experienced 29 accidents, 13 of which resulted in injuries. Distribution of accidents by type is presented on Figure 98. Broadsides represent 59\% of all crashes.


Figure $97 \mathbf{2 0}^{\text {th }}$ St Westbound


## Figure $\mathbf{9 8} \mathbf{2 0}^{\text {th }}$ St and Warren Distribution of Accidents by Type

Yellow plus all red change intervals observed in the field reflect local practices and are in concert with nominal values recommended by the ITE Traffic Engineering Handbook, however in light of the fact that broadside represent 59\% of all crashes increasing optional red clearance to 2 seconds may be considered. Even a moderate reduction in the number of broadside crashes will be highly cost-effective, since this modification will only require limited amount of staff time and no additional hardware.

Central and Kennedy - Potential Crash Reduction Score 33.29
$A D T_{1}=16,504, A D T_{2}=5,157$; Expected Total 1.94/year, Observed 4.8/year, Expected Inj.,0.51/year, Observed 1.17/year


Figure 99 Central and Kennedy Layout
Central and Kennedy is a 3-leg divided un-signalized intersection with raised islands on Central. Over the study period this intersection experienced 29 crashes 7 of which resulted in injuries. Distribution of accidents by type is provided on Figure 100 and diagnostic summary of crash characteristics is presented on Figure 101. Direct diagnostic analysis shows patterns of broadsides, sideswipes same and sideswipe opposite direction crashes, which suggests a potential for crash reduction. Broadsides represent most prevalent crash pattern and constitute 49\% (14), of all crashes, followed by sideswipe same $17 \%$ (5) and sideswipe opposite $10 \%$ (3). Frequency of these crashes can be reduced by introducing raised islands on Kennedy and removing or leaving a narrow raised median on Central northwest of Kennedy. Removing or leaving a narrow raised median on Central will create a refuge for left turning vehicles from Kennedy, which would reduce broadside as well as sideswipe same potential. Constructing raised islands on Kennedy will improve site distance by encouraging drives to stop closer to Central and reduce exposure for the left turning vehicles from

Kennedy. Additionally it will improve channelization and reduce potential for sideswipe opposite crashes.


Figure 100 Central and Kennedy Distribution by Crash Type


Figure 101 Central and Kennedy Diagnostic Summary of Crash Characteristics

Many of the crashes at this location are related to Cheyenne Frontier Days, however introducing refuge for left turning vehicles and improving channelization by constructing raised islands on Kennedy reduces crash potential throughout the year. Should the decision be made to provide improvements of raised islands on Kennedy and removal of raised median on Central, we offer the following 2-way sensitivity analysis of Benefit/Cost (B/C) ratios as a guide to expenditures and anticipated safety improvements. Considering that some uncertainty exists about actual cost of construction and anticipated accident reductions Table 28 below provides Benefit/Cost ratios relating different construction costs with broadside and sideswipe same/opposite accident reductions in the 30\% to 50\% range.

| Cost of <br> Construction | B/C for Crash <br> Reduction of <br> $30 \%$ | B/C for Crash <br> Reduction of <br> $40 \%$ | B/C for Crash <br> Reduction of <br> $50 \%$ |
| :---: | :---: | :---: | :---: |
| $\$ 100,000$ | 3.3 | 4.4 | 5.6 |
| $\$ 200,000$ | 1.7 | 2.2 | 2.8 |
| $\$ 300,000$ | 1.1 | 1.5 | 1.9 |

## Table 28 B/C Sensitivity Analysis for Safety Improvements at Central \& Kennedy

Benefit/Cost sensitivity analysis suggests that constructing raised islands on Kennedy and removing raised median on Central remains substantially cost effective if cost of construction does not exceed $\$ 200,000$ even under most conservative assumptions of crash reduction. Tables 29 and 30 provide details of Benefit/Cost analysis for the minimum and maximum Benefit/Cost ratios.


Table 29 Minimum B/C Ratio for Central and Kennedy


Table 30 Maximum B/C Ratio for Central and Kennedy


Figure 102 19 ${ }^{\text {th }}$ and Warren Layout
Warren Ave and $19^{\text {th }}$ St is a 4 leg signalized intersection with both streets operating one way. Signal design is a mast arm configuration with 12" LED heads with back plates on all approaches (Figure 103). A good quality arterial progression on Warren was observed during the field visit. Over the study period this location experienced 23 accidents, 10 of which resulted in injuries. Distribution of accidents by type is presented on Figure 104. Broadsides represent 57\% of all crashes.

Yellow plus all red change intervals observed in the field reflect local practices and are in concert with nominal values recommended by the ITE Traffic Engineering Handbook, however in light of the fact that broadside represent $59 \%$ of all crashes increasing optional red clearance to 2 seconds may be considered. Even a moderate reduction in the number of broadside crashes will be highly cost-effective, since this modification will only require limited amount of staff time and no additional hardware.


Figure 103 Signal Head Eastbound 19th


Figure 104 19 th and Warren Distribution of Accidents by Type

## Appendix



| -Contributing Factor | Veh 1 _ Veh $2 \ldots$ Veh 3 _ Direction |  |  |  | Veh 1 - Veh 2 - Veh 3 - |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No Apparent Contributing Factor: | 0 | 0 | 0 | North: | 45 | 31 | 0 |
| Asleep at the Wheel: | 0 | 0 | 0 | Northeast: | 2 | 2 | 0 |
| Illness: | 0 | 0 | 0 | East: | 12 | 17 | 0 |
| Distracted by Passenger: | 0 | 0 | 0 | Southeast: | 5 | 5 | 0 |
| Driver Inexperience: | 0 | 0 | 0 | South: | 30 | 38 | 0 |
| Driver Fatigue: | 0 | 0 | 0 | Southwest: | 4 | 3 | 0 |
| Driver Preoccupied: | 0 | 0 | 0 | West: | 14 | 16 | 0 |
| Driver Unfamilar with Area: | 0 | 0 | 0 | Northwest: | 14 | 8 | 0 |
| Driver Emotionally Upset: | 0 | 0 | 0 | Unknown: | 0 | 0 | 15 |
| Evading Law Enforcement Officier: | 0 | 0 | 0 | Total: | 126 | 120 | 15 |
| Physical Disability: | 0 | 0 | 0 | Total: | 126 | 120 | 15 |
| Unknown: | 126 | 120 | 15 |  |  |  |  |
| Total: | 126 | 120 | 15 |  |  |  |  |
| -Condition of Driver | 1 | h 2 |  |  |  |  |  |
| No Impairment Suspected: | 0 | 0 | 0 |  |  |  |  |
| Alcohol Involved: | 0 | 0 | 0 |  |  |  |  |
| RX Drugs or Medication Involved: | 0 | 0 | 0 |  |  |  |  |
| Illegal Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Alcohol and Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Driver/Pedestrian not Observed: | 0 | 0 | 0 |  |  |  |  |
| Unknown: | 126 | 120 | 15 |  |  |  |  |
| Total: | 126 | 120 | 15 |  |  |  |  |


| speed_1 | veh_move_1 | dir_2 | vehicle_2 | speed_2 | veh_move_2 | loc_01 | link | loc_02 | violcode_1 | violcode_2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7 | GOING STRAIGHT |  |  |  |  | CENTRAL AV |  | YELLOWSTON | NO APPARENT VIOL | NONE |
| 30 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | DRIVER INATTENTION | NO APPARENT VIOL |
| 5 | GOING STRAIGHT | E | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | ALCOHOL INVOLV | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | 5 | SLOWING | CENTRAL AV |  | YELLOWSTON | NONE | NO APPARENT VIOL |
| 2 | GOING STRAIGHT | W | PASS CAR/VAN | 5 | STARTING IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | NONE | NO APPARENT VIOL |
| 15 | GOING STRAIGHT | NW | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | DRIVER INATTENTION | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | W | PASS CAR/VAN | 10 | SLOWING | CENTRAL AV |  | YELLOWSTON | DRIVER INATTENTION | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | DRIVER INATTENTION | NO APPARENT VIOL |
| 40 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | PSGR DISTRACTN | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | NONE | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | DRIVER INATTENTION | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | NW | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | DRIVER INATTENTION | NO APPARENT VIOL |
| 15 | GOING STRAIGHT | E | PICKUP TRUCK/UTILITY VAN | 15 | SLOWING | CENTRAL AV |  | YELLOWSTON | NO APPARENT VIOL | NO APPARENT VIOL |
| 15 | STARTING IN TRAFFIC | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | OTHER | NO APPARENT VIOL |
| 45 | GOING STRAIGHT | N | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | DRIVER INATTENTION | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | NONE | NO APPARENT VIOL |
| UK | GOING STRAIGHT | N | PASS CAR/VAN | UK | GOING STRAIGHT | CENTRAL AV |  | YELLOWSTON | NONE | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | W | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | NONE | NO APPARENT VIOL |
| 40 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | NONE | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | SE | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | NONE | NO APPARENT VIOL |
| 10 | SLOWING | NW | PASS CAR/VAN | 3 | SLOWING | CENTRAL AV |  | YELLOWSTON | DRIVER INATTENTION | NO APPARENT VIOL |
| 0 | STOPPED IN TRAFFIC | N | PASS CAR/VAN | 15 | GOING STRAIGHT | CENTRAL AV |  | YELLOWSTON | NONE | NONE |
| 25 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | DRIVER INATTENTION | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | N | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | NONE | NO APPARENT VIOL |
| 20 | SLOWING | W | PASS CAR/VAN | 20 | SLOWING | CENTRAL AV |  | YELLOWSTON | NO APPARENT VIOL | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | NONE | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | N | PICKUP TRUCK/UTILITY VAN | UK | GOING STRAIGHT | CENTRAL AV |  | YELLOWSTON | DRIVER INATTENTION | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | NW | PASS CAR/VAN | 15 | SLOWING | CENTRAL AV |  | YELLOWSTON | DRIVER INATTENTION | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | ALCOHOL INVOLV | NO APPARENT VIOL |
| 40 | GOING STRAIGHT | N | PASS CAR/VAN | 40 | GOING STRAIGHT | CENTRAL AV |  | YELLOWSTON | DRIVER INATTENTION | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | N | PASS CAR/VAN | 30 | SLOWING | CENTRAL AV |  | YELLOWSTON | DRIVER INATTENTION | NO APPARENT VIOL |
| 40 | GOING STRAIGHT | W | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | DRIVER INATTENTION | NO APPARENT VIOL |
| 5 | SLOWING | E | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | N | PASS CAR/VAN | 5 | SLOWING | CENTRAL AV |  | YELLOWSTON | NONE | NO APPARENT VIOL |
| 5 | STARTING IN TRAFFIC | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | NONE | NO APPARENT VIOL |
| 15 | GOING STRAIGHT | E | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | DRIVER INATTENTION | NO APPARENT VIOL |
|  | STARTING IN TRAFFIC | NE | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | NONE | NONE |
| 40 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | OTHER | NO APPARENT VIOL |
| 15 | GOING STRAIGHT | W | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | DRIVER INEXPERIENCE | NO APPARENT VIOL |
| 5 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | NONE | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | E | PASS CAR/VAN | 5 | SLOWING | CENTRAL AV |  | YELLOWSTON | NONE | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | N | PASS CAR/VAN | 20 | SLOWING | CENTRAL AV |  | YELLOWSTON | DRIVER INATTENTION | NO APPARENT VIOL |
| 5 | GOING STRAIGHT | NE | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | DRIVER INEXPERIENCE | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | DRIVER INATTENTION | NO APPARENT VIOL |
| 25 | GOING STRAIGHT | NW | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | NONE | TRAF CNTRL DISREG |
| 42 | CHANGING LANES | W | PASS CAR/VAN | 40 | GOING STRAIGHT | CENTRAL AV |  | YELLOWSTON | NONE | NONE |
| 15 | MAKING LEFT TURN | E | PASS CAR/VAN | 5 | MAKING RIGHT TURN | CENTRAL AV |  | YELLOWSTON | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| 25 | GOING STRAIGHT | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | YELLOWSTON | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| 35 | CHANGING LANES | N | PASS CAR/VAN | 40 | GOING STRAIGHT | CENTRAL AV |  | YELLOWSTON | DRIVER INATTENTION | NO APPARENT VIOL |
| 5 | MAKING LEFT TURN | S | PASS CAR/VAN | 40 | GOING STRAIGHT | CENTRAL AV |  | YELLOWSTON | NONE | NO APPARENT VIOL |
| 50 | MAKING RIGHT TURN |  |  |  |  | CENTRAL AV |  | YELLOWSTON | ALCOHOL INVOLV | NONE |
| 45 | GOING STRAIGHT |  |  |  |  | CENTRAL AV |  | YELLOWSTON | TURNING IMPROP | NONE |
| 40 | GOING STRAIGHT |  |  |  |  | CENTRAL AV |  | YELLOWSTON | DRIVER INATTENTION | NONE |
| 40 | GOING STRAIGHT |  |  |  |  | CENTRAL AV |  | YELLOWSTON | DRIVER FATIGUE | NONE |
| 25 | GOING STRAIGHT | E | PASS CAR/VAN | 30 | MAKING RIGHT TURN | YELLOWSTON |  | CENTRAL AV | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | E | PASS CAR/VAN | 10 | MAKING LEFT TURN | YELLOWSTON |  | CENTRAL AV | DRIVER INATTENTION | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | W | PASS CAR/VAN | 10 | MAKING LEFT TURN | YELLOWSTON |  | CENTRAL AV | NO APPARENT VIOL | TRAF CNTRL DISREG |





| speed_1 | veh_move_1 | dir_2 | vehicle_2 | speed_2 | veh_move_2 | loc_01 | link | loc_02 | violcode_1 | violcode_2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | GOING STRAIGHT | E | PASS CAR/VAN | 40 | MAKING LEFT TURN | YELLOWSTON |  | CENTRAL AV | NO APPARENT VIOL | TRAF CNTRL DISREG |
| 40 | GOING STRAIGHT | E | PICKUP TRUCK/UTILITY VAN | 20 | MAKING LEFT TURN | YELLOWSTON |  | CENTRAL AV | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 10 | MAKING RIGHT TURN | S | PASS CAR/VAN | 2 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 40 | GOING STRAIGHT | W | PASS CARNAN | 5 | MAKING LEFT TURN | YELLOWSTON |  | CENTRAL AV | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | E | PASS CAR/VAN | 20 | MAKING LEFT TURN | YELLOWSTON |  | CENTRAL AV | DRIVER INATTENTION | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | E | PASS CAR/VAN | 15 | MAKING LEFT TURN | YELLOWSTON |  | CENTRAL AV | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | E | PASS CAR/VAN | 15 | MAKING LEFT TURN | YELLOWSTON |  | CENTRAL AV | DRIVER INATTENTION | NO APPARENT VIOL |
| 40 | GOING STRAIGHT | E | PASS CAR/VAN | 15 | MAKING LEFT TURN | YELLOWSTON |  | CENTRAL AV | TRAF CNTRL DISREG | NO APPARENT VIOL |
| UK | BACKING | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | YELLOWSTON |  | CENTRAL AV | DRIVER INATTENTION | NONE |
| 30 | GOING STRAIGHT | W | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | YELLOWSTON |  | CENTRAL AV | DRIVER INATTENTION | NO APPARENT VIOL |
| 3 | SLOWING | SW | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | S | PASS CARNAN | 0 | STOPPED IN TRAFFIC | YELLOWSTON |  | CENTRAL AV | DRIVER INATTENTION | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | S | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 10 | MAKING RIGHT TURN | S | PASS CAR/VAN | 5 | MAKING RIGHT TURN | YELLOWSTON |  | CENTRAL AV | PSGR DISTRACTN | NO APPARENT VIOL |
| 5 | SLOWING | S | PASS CAR/VAN | 5 | SLOWING | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 5 | GOING STRAIGHT | SE | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | YELLOWSTON |  | CENTRAL AV | DRIVER INATTENTION | NO APPARENT VIOL |
| 5 | GOING STRAIGHT | W | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | YELLOWSTON |  | CENTRAL AV | DRIVER INATTENTION | NO APPARENT VIOL |
| 10 | MAKING RIGHT TURN | SW | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| UK | GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | 5 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | NO APPARENT VIOL | DRIVER INATTENTION |
| 10 | STARTING IN TRAFFIC | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 15 | GOING STRAIGHT | S | PASS CARNAN | 0 | STOPPED IN TRAFFIC | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | YELLOWSTON |  | CENTRAL AV | NO APPARENT VIOL | NO APPARENT VIOL |
| 40 | GOING STRAIGHT | N | PASS CAR/VAN | 10 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | ILLNESS | NO APPARENT VIOL |
| 40 | GOING STRAIGHT | S | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | YELLOWSTON |  | CENTRAL AV | ALCOHOL INVOLV | NO APPARENT VIOL |
| 40 | CHANGING LANES | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | YELLOWSTON |  | CENTRAL AV | DRIVER INATTENTION | NO APPARENT VIOL |
| 25 | GOING STRAIGHT | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | YELLOWSTON |  | CENTRAL AV | DRIVER INATTENTION | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | YELLOWSTON |  | CENTRAL AV | DRIVER INATTENTION | NO APPARENT VIOL |
| 20 | MAKING RIGHT TURN | SW | PASS CAR/VAN | 15 | MAKING RIGHT TURN | YELLOWSTON |  | CENTRAL AV | TURNING IMPROP | NO APPARENT VIOL |
| 20 | SLOWING | N | PASS CAR/VAN | 5 | SLOWING | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 10 | MAKING LEFT TURN | E | PASS CAR/VAN | 10 | MAKING LEFT TURN | YELLOWSTON |  | CENTRAL AV | DRIVER INATTENTION | NO APPARENT VIOL |
| 30 | CHANGING LANES | S | PASS CAR/VAN | 30 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | TURNING IMPROP | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | S | PASS CAR/VAN | 35 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 40 | MAKING LEFT TURN | NW | PASS CAR/VAN | 40 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 5 | MAKING LEFT TURN | N | PASS CAR/VAN | 35 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | DRIVER INATTENTION | NO APPARENT VIOL |
| 5 | MAKING LEFT TURN | S | PICKUP TRUCK/UTILITY VAN | 38 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 5 | MAKING LEFT TURN | S | PASS CAR/VAN | 35 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | DRIVER INATTENTION | NO APPARENT VIOL |
| 10 | MAKING LEFT TURN | S | PASS CAR/VAN | 30 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 40 | MAKING LEFT TURN | S | PASS CARNAN | 40 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | DRIVER INATTENTION | NO APPARENT VIOL |
| 20 | MAKING LEFT TURN | S | PICKUP TRUCK/UTILITY VAN | 30 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | TURNING IMPROP | NO APPARENT VIOL |
| 10 | MAKING LEFT TURN | S | PASS CAR/VAN | UK | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | NONE | TRAF CNTRL DISREG |
| UK | MAKING LEFT TURN | S | PASS CAR/VAN | 30 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | DRIVER INATTENTION | NO APPARENT VIOL |
| 5 | MAKING LEFT TURN | S | PASS CAR/VAN | 25 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 15 | MAKING LEFT TURN | S | PASS CAR/VAN | 40 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 30 | MAKING LEFT TURN | S | PASS CAR/VAN | 30 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | W | PASS CAR/VAN | UK | MAKING LEFT TURN | YELLOWSTON |  | CENTRAL AV | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | N | PASS CAR/VAN | 15 | MAKING LEFT TURN | YELLOWSTON |  | CENTRAL AV | NO APPARENT VIOL | DRIVER INATTENTION |
| 40 | GOING STRAIGHT | N | PASS CAR/VAN | 10 | MAKING LEFT TURN | YELLOWSTON |  | CENTRAL AV | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 15 | MAKING LEFT TURN | S | PASS CAR/VAN | 40 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 15 | MAKING LEFT TURN | S | PICKUP TRUCK/UTILITY VAN | 40 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 10 | MAKING LEFT TURN | S | PASS CAR/VAN | 30 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | NO APPARENT VIOL | TRAF CNTRL DISREG |
| 20 | MAKING LEFT TURN | E | UNKNOWN | UK | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | NONE | NONE |
| 20 | MAKING LEFT TURN | S | PASS CAR/VAN | 20 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | TURNING IMPROP | NO APPARENT VIOL |
| 30 | MAKING LEFT TURN | S | PICKUP TRUCK/UTILITY VAN | 40 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 30 | MAKING LEFT TURN | S | PASS CAR/VAN | 40 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |



| speed_1 | veh_move_1 | dir_2 | vehicle_2 | speed_2 | veh_move_2 | loc_01 | link | loc_02 | violcode_1 | violcode_2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 40 | GOING STRAIGHT | NW | PASS CAR/VAN | 30 | MAKING LEFT TURN | YELLOWSTON |  | CENTRAL AV | DRIVER INATTENTION | TURNING IMPROP |
| 20 | MAKING LEFT TURN | S | PASS CAR/VAN | 35 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | DRIVER INATTENTION | DRIVER INATTENTION |
| 20 | MAKING LEFT TURN | SE | PASS CAR/VAN | 40 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | NW | PASS CARNAN | UK | MAKING LEFT TURN | YELLOWSTON |  | CENTRAL AV | NONE | NONE |
| 10 | MAKING LEFT TURN | E | PASS CAR/VAN | 10 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | DRIVER INATTENTION | NO APPARENT VIOL |
| 20 | MAKING LEFT TURN | SE | PASS CAR/VAN | 40 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 10 | MAKING LEFT TURN | SE | PASS CAR/VAN | 40 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | UNKNOWN | UNKNOWN |
| 10 | MAKING LEFT TURN | S | PICKUP TRUCK/UTILITY VAN | 35 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 10 | MAKING LEFT TURN | S | PASS CAR/VAN | 10 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 15 | MAKING LEFT TURN | S | PASS CAR/VAN | 40 | GOING STRAIGHT | YELLOWSTON |  | CENTRAL AV | NONE | NO APPARENT VIOL |
| 24 | GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | 0 | PARKED | YELLOWSTON |  | CENTRAL AV | UNSAFE SPD FOR COND | NO DRIVER |
| UK | UNKNOWN |  |  |  |  | YELLOWSTON |  | CENTRAL AV | UNKNOWN | NONE |



| Contributing Factor | Veh 1 — Veh 2 - Veh 3 |  |  | Direction | 1 |  | Veh 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No Apparent Contributing Factor: | 0 | 0 | 0 | North: | 15 | 15 | 0 |
| Asleep at the Wheel: | 0 | 0 | 0 | Northeast: | 0 | 0 | 0 |
| Illness: | 0 | 0 | 0 | East: | 30 | 37 | 0 |
| Distracted by Passenger: | 0 | 0 | 0 | Southeast: | 3 | 3 | 0 |
| Driver Inexperience: | 0 | 0 | 0 | South: | 16 | 10 | 0 |
| Driver Fatigue: | 0 | 0 | 0 | Southwest: | 1 | 1 | 0 |
| Driver Preoccupied: | 0 | 0 | 0 | West: | 28 | 24 | 0 |
| Driver Unfamilar with Area: | 0 | 0 | 0 | Northwest: | 0 | 1 | 0 |
| Driver Emotionally Upset: | 0 | 0 | 0 | Unknown: | 0 | 0 | 8 |
| Evading Law Enforcement Officier: | 0 | 0 | 0 | Total: | 93 | 91 | 8 |
| Physical Disability: | 0 | 0 | 0 | Totar: | 93 | 91 | 8 |
| Unknown: | 93 | 91 | 8 |  |  |  |  |
| Total: | 93 | 91 | 8 |  |  |  |  |
| Condition of Driver | 1 | 2 |  |  |  |  |  |
| No Impairment Suspected: | 0 | 0 | 0 |  |  |  |  |
| Alcohol Involved: | 0 | 0 | 0 |  |  |  |  |
| RX Drugs or Medication Involved: | 0 | 0 | 0 |  |  |  |  |
| Illegal Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Alcohol and Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Driver/Pedestrian not Observed: | 0 | 0 | 0 |  |  |  |  |
| Unknown: | 93 | 91 | 8 |  |  |  |  |
| Total: | 93 | 91 | 8 |  |  |  |  |


|  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No Apparent Contributing Factor: | 0 | 0 | 0 | North: | 15 | 15 | 0 |
| Asleep at the Wheel: | 0 | 0 | 0 | Northeast: | 0 | 0 | 0 |
| Illness: | 0 | 0 | 0 | East: | 30 | 37 | 0 |
| Distracted by Passenger: | 0 | 0 | 0 | Southeast: | 3 | 3 | 0 |
| Driver Inexperience: | 0 | 0 | 0 | South: | 16 | 10 | 0 |
| Driver Fatigue: | 0 | 0 | 0 | Southwest: | 1 | 1 | 0 |
| Driver Preoccupied: | 0 | 0 | 0 | West: | 28 | 24 | 0 |
| Driver Unfamilar with Area: | 0 | 0 | 0 | Northwest: | 0 | 1 | 0 |
| Driver Emotionally Upset: | 0 | 0 | 0 | Unknown: | 0 | 0 | 8 |
| Evading Law Enforcement Officier: | 0 | 0 | 0 | Total: | 93 | 91 | 8 |
| Physical Disability: | 0 | 0 | 0 | Total: | 93 | 91 | 8 |
| Unknown: | 93 | 91 | 8 |  |  |  |  |
| Total: | 93 | 91 | 8 |  |  |  |  |
| Veh 1 _ Veh 2 - Veh 3 |  |  |  |  |  |  |  |
| No Impairment Suspected: | 0 | 0 | 0 |  |  |  |  |
| Alcohol Involved: | 0 | 0 | 0 |  |  |  |  |
| RX Drugs or Medication Involved: | 0 | 0 | 0 |  |  |  |  |
| Illegal Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Alcohol and Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Driver/Pedestrian not Observed: | 0 | 0 | 0 |  |  |  |  |
| Unknown: | 93 | 91 | 8 |  |  |  |  |
| Total: | 93 | 91 | 8 |  |  |  |  |


| Location: Accident History for DELL RANGE and RIDGE |  |  |  | From:01/01/2002 To:12/31/2007 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| V | Veh 1 __ Veh 2 __ Veh 3 _ Vehicle Movement |  |  |  | Veh 1 - Veh 2 - Veh 3 - |  |  |
| Passenger Car/Van: | 82 | 74 | 0 | Going Straight: | 39 | 51 | 0 |
| Passenger Car/Van w/Trl: | 0 | 0 | 0 | Slowing: | 4 | 8 | 0 |
| Pickup Truck/Utility Van: | 9 | 15 | 0 | Stopped in Traffic: | 5 | 20 | 0 |
| Pickup Truck/Utility Van w/Trl: | 0 | 0 | 0 | Making Right Turn: | 6 | 3 | 0 |
| Truck 10k lbs or Less: | 1 | 0 | 0 | Making Left Turn: | 30 | 7 | 0 |
| Trucks > 10k lbs/Bus > 15 People: | 0 | 0 | 0 | Making U-Turn: | 0 | 0 | 0 |
| School Bus < 15 People: | 0 | 0 | 0 | Passing: | 0 | 0 | 0 |
| Non School Bus < 15 People: | 0 | 0 | 0 | Backing: | 2 | 0 | 0 |
| Motorhome: | 0 | 0 | 0 | Enter/Leave Parked Position: | 0 | 1 | 0 |
| Motorcycle: | 0 | 1 | 0 | Starting in Traffic: | 3 | 0 | 0 |
| Bicycle: | 0 | 1 | 0 | Parked: | 0 | 0 | 0 |
| Motorized Bicycle: | 0 | 0 | 0 | Changing Lanes: | 4 | 0 | 0 |
| Farm Equipment: | 0 | 0 | 0 | Avoiding Object in Road: | 0 | 0 | 0 |
| Hit and Run - Unknown: | 0 | 0 | 0 | Weaving: | 0 | 0 | 0 |
| Other: | 0 | 0 | 0 | Other: | 0 | 1 | 0 |
| Unknown: | 1 | 0 | 8 | Unknown: | 0 | 0 | 8 |
| Total: | 93 | 91 | 8 | Total: | 93 | 91 | 8 |


| date | time | severity | serial | road_desc | vehicles | condition | lighting | weather | ramp | acctype | dir_1 | vehicle_1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4/10/2002 | 1221 | INJ | 200205557 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PASS CAR/VAN |
| 9/4/2002 | 1611 | PDO | 200213862 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | SE | PASS CAR/VAN |
| 11/26/2002 | 1407 | INJ | 200219288 | INTERSECTION RELATED | 3 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PASS CAR/VAN |
| 11/2/2003 | 1359 | PDO | 200316728 | INTERSECTION RELATED | 2 | WET | DAYLIGHT | NONE | N | REAR-END | E | PASS CAR/VAN |
| 12/19/2003 | 1713 | INJ | 200320669 | INTERSECTION RELATED |  | DRY | DARK-LIGHTED | NONE | N | REAR-END | SE | PASS CAR/VAN |
| 12/22/2003 | 1905 | PDO | 200320691 | INTERSECTION RELATED | 2 | ICY | DARK-LIGHTED | NONE | N | REAR-END | W | PASS CAR/VAN |
| 3/4/2004 | 1644 | PDO | 200403908 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PASS CAR/VAN |
| 4/29/2004 | 1257 | PDO | 200406494 | INTERSECTION RELATED | 2 | WET | DAYLIGHT | UNKNOWN | N | REAR-END | W | PASS CAR/VAN |
| 5/28/2004 | 1245 | PDO | 200407758 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PASS CAR/VAN |
| 8/31/2004 | 1250 | PDO | 200413277 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | W | PASS CAR/VAN |
| 9/22/2004 | 1115 | PDO | 200414750 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | W | PASS CAR/VAN |
| 10/9/2004 | 1035 | PDO | 200415388 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | S | PASS CAR/VAN |
| 3/29/2005 | 1130 | PDO | 200505030 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | W | PASS CAR/VAN |
| 12/15/2005 | 1411 | INJ | 200519496 | INTERSECTION RELATED | 3 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PASS CAR/VAN |
| 12/21/2005 | 1214 | INJ | 200521126 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PASS CAR/VAN |
| 1/3/2006 | 1447 | PDO | 200600068 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | WIND | N | REAR-END | W | PASS CAR/VAN |
| 2/17/2006 | 1706 | PDO | 200603315 | INTERSECTION RELATED | 3 | ICY | DAYLIGHT | SNOW/SLEET/HAIL | N | REAR-END | E | PASS CAR/VAN |
| 4/3/2006 | 1353 | INJ | 200606182 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | W | PASS CAR/VAN |
| 4/25/2006 | 1703 | PDO | 200607023 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | W | PASS CAR/VAN |
| 6/21/2006 | 1945 | PDO | 200610512 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PASS CAR/VAN |
| 7/11/2006 | 1234 | PDO | 200611208 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PICKUP TRUCK/UTILITY VAN |
| 7/21/2006 | 1045 | INJ | 200611783 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PASS CAR/VAN |
| 10/14/2006 | 1043 | PDO | 200616931 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PASS CAR/VAN |
| 2/20/2007 | 1149 | PDO | 200703431 | INTERSECTION RELATED | 2 | WET | DAYLIGHT | NONE | N | REAR-END | S | PASS CAR/VAN |
| 5/15/2007 | 1723 | PDO | 200707946 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | SE | PASS CAR/VAN |
| 12/8/2007 | 2056 | INJ | 200722029 | INTERSECTION RELATED | 2 | SNOWY | DARK-LIGHTED | SNOW/SLEET/HAIL | N | REAR-END | E | PASS CAR/VAN |
| 5/22/2002 | 1714 | PDO | 200207742 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | E | PASS CAR/VAN |
| 11/16/2002 | 1705 | PDO | 200218418 | INTERSECTION RELATED | 2 | DRY | DAWN OR DUSK | NONE | N | SIDESWIPE SAME DIRECTION | E | PICKUP TRUCK/UTILITY VAN |
| 3/21/2003 | 1622 | PDO | 200304527 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | W | PASS CAR/VAN |
| 4/18/2005 | 1111 | PDO | 200506023 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | E | PASS CAR/VAN |
| 11/13/2002 | 2359 | INJ | 200218349 | INTERSECTION RELATED | 1 | WET | DARK-UNLIGHTED | SNOW/SLEET/HAIL | N | LIGHT/UTILITY POLE | W | PICKUP TRUCK/UTILITY VAN |
| 2/14/2004 | 0100 | INJ | 200402454 | INTERSECTION RELATED | 1 | DRY | DARK-LIGHTED | NONE | N | LIGHT/UTILITY POLE | N | PICKUP TRUCK/UTILITY VAN |
| 3/12/2002 | 1852 | PDO | 200203898 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | W | PASS CAR/VAN |
| 12/3/2002 | 1617 | INJ | 200219683 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PASS CAR/VAN |
| 2/22/2003 | 1930 | PDO | 200302873 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | N | PASS CAR/VAN |
| 6/5/2003 | 1344 | PDO | 200308050 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PASS CAR/VAN |
| 11/10/2003 | 2322 | INJ | 200317589 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | W | PASS CAR/VAN |
| 12/9/2003 | 0851 | INJ | 200320064 | AT INTERSECTION | 2 | ICY | DAYLIGHT | NONE | N | BROADSIDE | E | PASS CAR/VAN |
| 7/14/2004 | 1810 | PDO | 200410388 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | S | PASS CAR/VAN |
| 11/5/2004 | 2352 | PDO | 200416902 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | N | PASS CAR/VAN |
| 2/9/2005 | 2347 | INJ | 200502496 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | S | PASS CAR/VAN |
| 7/15/2005 | 1106 | INJ | 200510631 | AT INTERSECTION | 4 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PASS CAR/VAN |
| 7/19/2005 | 2355 | PDO | 200511229 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | S | PASS CAR/VAN |
| 9/27/2005 | 0910 | INJ | 200514907 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PASS CAR/VAN |
| 10/25/2005 | 0148 | PDO | 200516450 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | S | PASS CAR/VAN |
| 1/17/2006 | 2011 | PDO | 200600289 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | E | PASS CAR/VAN |
| 5/21/2006 | 1840 | INJ | 200608585 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | S | PASS CAR/VAN |
| 6/2/2006 | 0557 | INJ | 200608789 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | S | PASS CAR/VAN |
| 8/18/2007 | 0923 | PDO | 200713880 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PASS CAR/VAN |
| 11/17/2007 | 0632 | PDO | 200719857 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PASS CAR/VAN |
| 11/28/2003 | 0827 | PDO | 200319123 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | HEAD-ON | S | PICKUP TRUCK/UTILITY VAN |
| 2/10/2005 | 1730 | PDO | 200502456 | AT INTERSECTION | 2 | DRY | DAYLIGHT | SNOW/SLEET/HAIL | N | HEAD-ON | W | UNKNOWN |
| 10/16/2006 | 1912 | PDO | 200617019 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | HEAD-ON | N | TRUCK GVW <= 10K LBS |
| 5/14/2003 | 1755 | INJ | 200307107 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CAR/VAN |


| speed_1 | veh move_1 | dir_2 | vehicle 2 | Speed 2 | veh move_2 | loc 01 | link | loc 02 | olcode | violcode 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SLOWING | E | PICKUP TRUCK/UTILITY VAN |  | STOPPED IN TRAFFIC | DELL RANGE |  | RIDGERD | NONE | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | SE | PASS CARNAN | 10 | Slowing | DELL RANGE |  | RIDGERD | DRIVER INATTENTION | NO APPARENT VIOL |
| 40 | GOING STRAIGHT | E | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | RIDGERD | DRIVER INEXPERIENCE | NO APPARENT VIOL |
| UK | CHANGING LANES | E | PASS CARNAN | UK | GOING STRAIGHT | DELL RANGE |  | RIDGERD | DRIVER INATTENTION | NO APPARENT VIOL |
| 5 | MAKING RIGHT TURN | SE | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | RIDGERD | DRIVER INATTENTION | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | w | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | RIDGERD | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| 25 | GOING STRAIGHT | E | PASS CARNAN | 25 | SLOWING | DELL RANGE |  | RIDGERD | PSGR DISTRACTN | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | w | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | RIDGERD | DRIVER INATTENTION | NO APPARENT VIOL |
| 20 | SLOWING | E | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | RIDGERD | NONE | NO APPARENT VIOL |
| 15 | Slowing | w | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | RIDGERD | IMPROP PASS | NONE |
| 15 | GOING STRAIGHT | w | PICKUP TRUCK/UTILITY VAN | 5 | SLOWING | DELL RANGE |  | RIDGERD | NONE | NO APPARENT VIOL |
| 0 | STOPPED IN TRAFFIC | s | PASS CARNAN |  | ENTERING/LEAVING PARKED POSITION | DELL RANGE |  | RIDGERD | NONE | NO APPARENT VIOL |
| 0 | STOPPED IN TRAFFIC | w | PICKUP TRUCK/UTLLITY VAN | UK | GOING STRAIGHT | DELL RANGE |  | RIDGERD | NONE | NONE |
| 40 | GOING STRAIGHT | E | PICKUP TRUCK/UTLLITY VAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | RIDGERD | NONE | NO APPARENT VIOL |
| 40 | GOING STRAIGHT | E | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | RIDGERD | PHYSICAL DISABIIITY | OTHER |
|  | GOING STRAIGHT | w | PASS CARNAN | UK | SLOWING | DELL RANGE |  | RIDGERD | NONE | NO APP |
| 30 | SLOWING | E | PICKUP TRUCK/UTLLTY VAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | RIDGERD | DRIVER INEXPERIENCE | NO APPARENT VIOL |
|  | STOPPED IN TRAFFIC | w | PASS CARVAN | 10 | SLOWING | DELL RANGE |  | RIDGERD | NONE | NO APPARENT VIOL |
| 15 | GOING STRAIGHT | w | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | RIDGERD | TRAF CNTRL DISREG | NO APPARENT VIOL |
|  | STOPPED IN TRAFFIC | E | PASS CARNAN | 20 | GOING STRAIGHT | DELL RANGE |  | RIDGERD | NONE | NONE |
| 15 | GOING STRAIGHT | E | PASS CARNAN | UK | SLOWING | DELL RANGE |  | RIDGERD | NONE | NO APPARENT VIO |
| 5 | GOING STRAIGHT | E | PASS CARNAN | 1 | GOING STRAIGHT | DELL RANGE |  | RIDGERD | NO APPARENT VIOL | NONE |
|  | STARTING IN TRAFFIC | E | PASS CARVAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | RIDGERD | DRIVER INATTENTION | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | s | PASS CARVAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | RIDGERD | NONE | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | SE | PASS CARNAN | 20 | slowing | DELL RANGE |  | RIDGERD | DRIVER INATTENTION | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | E | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | RIDGERD | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| 5 | CHANGING LANES | E | PASS CARVAN | 5 | GOING STRAIGHT | DELL RANGE |  | RIDGERD | DRIVER INATTENTION | DRIVER INATTENTION |
|  | GOING STRAIGHT | E | Pass carvan | 5 | MAKING LEFT TURN | DELL RANGE |  | RIDGERD | DRIVER INATTENTION | NO APPARENT VIOL |
| 15 | CHANGING LANES | w | PAss CARVAN | 12 | GOING STRAIGHT | DELL RANGE |  | RIDGERD | DRIVER INATTENTION | NO APPARENT VIOL |
| 10 | CHANGING LANES | E | PASS CARVAN | 15 | GOING STRAIGHT | DELL RANGE |  | RIDGERD | DRIVER INATTENTION | NO APPARENT VIOL |
| 35 | GOING STRAIGHT |  |  |  |  | DELL RANGE |  | RIDGERD | UNSAFE SPD FOR COND | NONE |
| 15 | MAKING LEFT TURN |  |  |  |  | DELL RANGE |  | RIDGERD | ILLNESS | NONE |
| 15 | GOING STRAIGHT | s | PASS CARNAN | 25 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | DRIVER INATTENTION | NO APPARENT VIOL |
| 40 | GOING STRAIGHT | N | PICKUP TRUCK/UTLLTY VAN | 35 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | w | PASS CARNAN | 10 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | PSGR DISTRACTN | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | s | PICKUP TRUCK/UTLITY VAN | 30 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | N | PASS CARNAN | 35 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | NO APPARENT VIOL | ALCOHOL INVOLV |
| 35 | GOING STRAIGHT | N | PASS CARNAN | 5 | MAKING LEFT TURN | RIDGE RD |  | DELL RANGE | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| 20 | MAKING LEFT TUR | E | PASS CARIVAN | 40 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | NONE | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | w | PASS CARNAN | 20 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | DRIVER INATTENTION | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | E | PASS CARNAN | 38 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 45 | GOING STRAIGHT | s | PASS CARNAN | 15 | MAKING LEFT TURN | RIDGE RD |  | DELL RANGE | DRIVER INATTENTION | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | w | PASS CARNAN | 35 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | DRIVER INATTENTION | DRIVER INEXPERIENCE |
| 40 | GOING STRAIGHT | N | PASS CARVAN | 40 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | DRIVER INATTENTION | NO APPARENT VIOL |
| UK | GOING STRAIGHT | w | PASS CARNAN | 37 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 10 | STARTING IN TRAFFIC | s | PICKUP TRUCKIUTLITY VAN | 30 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | DRIVER INATTENTION | NO APPARENT VIOL |
| 10 | STARTING IN TRAFFIC | w | PICKUP TRUCK/UTLLITY VAN | 35 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | w | PASS CARNAN | 40 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | E | PASS CARNAN | 30 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | E | PASS CARNAN | 30 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | DRIVER INATTENTION | NO APPARENT VIOL |
| 5 | BACKING | N | PASS CARNAN | 0 | STOPPED IN TRAFFIC | RIDGE RD |  | DELL RANGE | BACKING UNSAFELY | NO APPARENT VIOL |
| UK | GOING STRAIGHT | E | PASS CARVAN | 0 | STOPPED IN TRAFFIC | RIDGE RD |  | DELL RANGE | UNKNOWN | NO APPARENT VIOL |
|  | BACKING | s | PASS CARNAN | 0 | STOPPED IN TRAFFIC | RIDGE RD |  | DELL RANGE | BACKING UNSAFELY | NO APPARENT VIOL |
| 7 | GOING STRAIGHT | N | PASS CARNAN | 0 | STOPPED IN TRAFFIC | RIDGE RD |  | DELL RANGE | ALCOHOL INVOLV | NO APPARENT VIOL |


| date | time | severity | serial | road_desc | vehicles | condition | lighting | weather | ramp | acctype | dir_1 | vehicle_1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8/21/2003 | 1855 | PDO | 200312533 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PICKUP TRUCK/UTILITY VAN |
| 10/8/2003 | 1731 | PDO | 200315315 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CAR/VAN |
| 4/9/2004 | 1005 | PDO | 200405560 | INTERSECTION RELATED | 2 | SNOWY | DAYLIGHT | SNOW/SLEET/HAIL | N | REAR-END | N | PASS CAR/VAN |
| 7/26/2007 | 1636 | PDO | 200712656 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PICKUP TRUCK/UTILITY VAN |
| 2/20/2002 | 2023 | PDO | 200202586 | AT INTERSECTION | 2 | ICY | DARK-LIGHTED | SNOW/SLEET/HAIL | N | SIDESWIPE SAME DIRECTION | N | PASS CAR/VAN |
| 10/4/2006 | 1530 | PDO | 200616219 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | E | PASS CAR/VAN |
| 12/4/2002 | 0743 | PDO | 200219684 | INTERSECTION RELATED | 2 | WET | DAYLIGHT | NONE | N | SIDESWIPE OPPOSITE DIRECTION | N | PICKUP TRUCK/UTILITY VAN |
| 6/2/2002 | 2114 | PDO | 200208324 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | E | PASS CAR/VAN |
| 11/28/2002 | 1834 | INJ | 200219295 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 1/3/2003 | 2237 | INJ | 200300060 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 8/1/2003 | 1044 | PDO | 200311167 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | SW | PASS CAR/VAN |
| 11/7/2003 | 1835 | INJ | 200317568 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 11/17/2003 | 1712 | PDO | 200318137 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | E | PASS CAR/VAN |
| 12/18/2003 | 1607 | PDO | 200320800 | AT INTERSECTION | 3 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 12/23/2003 | 1727 | PDO | 200320808 | AT INTERSECTION | 4 | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 5/8/2004 | 1114 | INJ | 200406907 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 6/16/2004 | 2258 | PDO | 200408844 | AT INTERSECTION | 2 | WET | DARK-LIGHTED | RAIN | N | APPROACH TURN | W | PASS CAR/VAN |
| 8/26/2004 | 1520 | INJ | 200413224 | AT INTERSECTION | 2 | WET | DAYLIGHT | NONE | N | APPROACH TURN | E | PASS CAR/VAN |
| 12/20/2004 | 0838 | PDO | 200420550 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | WIND | N | APPROACH TURN | E | PASS CAR/VAN |
| 2/19/2005 | 1751 | PDO | 200503142 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | S | PASS CAR/VAN |
| 4/11/2005 | 1654 | INJ | 200505119 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | S | PASS CAR/VAN |
| 6/20/2005 | 0922 | PDO | 200511250 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 7/7/2005 | 1935 | PDO | 200510132 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | S | PASS CAR/VAN |
| 9/19/2005 | 1709 | PDO | 200513499 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | E | PASS CAR/VAN |
| 11/21/2005 | 1923 | INJ | 200518376 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 2/1/2006 | 1703 | INJ | 200601599 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | N | PASS CAR/VAN |
| 2/1/2006 | 1824 | INJ | 200601601 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 5/23/2006 | 1800 | PDO | 200608175 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 6/9/2006 | 1456 | PDO | 200609112 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | E | PICKUP TRUCK/UTILITY VAN |
| 6/24/2006 | 0004 | INJ | 200610138 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | S | PASS CAR/VAN |
| 10/31/2006 | 1559 | PDO | 200618174 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | E | PASS CAR/VAN |
| 11/14/2006 | 1308 | PDO | 200619164 | AT INTERSECTION | 2 | DRY | DAYLIGHT | WIND | N | APPROACH TURN | N | PASS CAR/VAN |
| 2/21/2007 | 1756 | INJ | 200703436 | AT INTERSECTION | 3 | DRY | DAWN OR DUSK | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 6/27/2007 | 2318 | INJ | 200710945 | AT INTERSECTION | 3 | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 10/31/2007 | 1826 | PDO | 200718142 | AT INTERSECTION | 2 | DRY | DAWN OR DUSK | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 11/25/2007 | 1747 | PDO | 200720446 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | S | PASS CAR/VAN |
| 12/3/2007 | 2143 | PDO | 200721026 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | S | PASS CAR/VAN |
| 6/21/2006 | 0739 | PDO | 200609843 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | OVERTAKING TURN | W | PASS CAR/VAN |
| 5/24/2007 | 1643 | INJ | 200708615 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | BICYCLE | S | PASS CAR/VAN |


| speed_1 | veh_move_1 | dir_2 | vehicle_2 | speed_2 | veh_move_2 | loc_01 | link | loc_02 | violcode_1 | violcode_2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15 | GOING STRAIGHT | N | PASS CAR/VAN | UK | MAKING RIGHT TURN | RIDGE RD |  | DELL RANGE | DRIVER INATTENTION | NO APPARENT VIOL |
| 5 | MAKING RIGHT TURN | N | PASS CAR/VAN | 3 | MAKING RIGHT TURN | RIDGE RD |  | DELL RANGE | NONE | NO APPARENT VIOL |
| 0 | STOPPED IN TRAFFIC | N | PASS CAR/VAN | 25 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | NO APPARENT VIOL | UNSAFE SPD FOR COND |
| 20 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | RIDGE RD |  | DELL RANGE | DRIVER INATTENTION | NO APPARENT VIOL |
| 15 | MAKING LEFT TURN | W | PASS CAR/VAN | 30 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | DRIVER INATTENTION | DRIVER INATTENTION |
| 5 | MAKING RIGHT TURN | W | PASS CAR/VAN | 40 | MAKING LEFT TURN | RIDGE RD |  | DELL RANGE | NONE | NONE |
| 10 | MAKING RIGHT TURN | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | RIDGE RD |  | DELL RANGE | TURNING IMPROP | NO APPARENT VIOL |
| 20 | MAKING LEFT TURN | W | PASS CAR/VAN | 25 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | DRIVER INATTENTION | NO APPARENT VIOL |
| 20 | MAKING LEFT TURN | E | PASS CAR/VAN | 40 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | ALCOHOL INVOLV | NO APPARENT VIOL |
| 30 | MAKING LEFT TURN | E | PASS CAR/VAN | 30 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | TURNING IMPROP | NO APPARENT VIOL |
| 10 | MAKING LEFT TURN | E | PASS CAR/VAN | 40 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | NONE | NO APPARENT VIOL |
| 15 | MAKING LEFT TURN | E | PASS CAR/VAN | 40 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | NONE | NO APPARENT VIOL |
| 15 | GOING STRAIGHT | SW | PASS CAR/VAN | 35 | MAKING LEFT TURN | RIDGE RD |  | DELL RANGE | NONE | NO APPARENT VIOL |
| 30 | MAKING LEFT TURN | E | PICKUP TRUCK/UTILITY VAN | 30 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | NONE | NO APPARENT VIOL |
| 5 | MAKING LEFT TURN | E | PASS CAR/VAN | 35 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | NONE | NO APPARENT VIOL |
| 5 | MAKING LEFT TURN | E | PASS CAR/VAN | 30 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | NONE | NO APPARENT VIOL |
| 5 | MAKING LEFT TURN | E | PASS CAR/VAN | 35 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | NONE | NO APPARENT VIOL |
| 15 | MAKING LEFT TURN | W | PASS CAR/VAN | 40 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | NONE | NO APPARENT VIOL |
| UK | MAKING LEFT TURN | W | PASS CAR/VAN | UK | SLOWING | RIDGE RD |  | DELL RANGE | NONE | NO APPARENT VIOL |
| 10 | MAKING LEFT TURN | N | PASS CAR/VAN | 25 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | NONE | NO APPARENT VIOL |
| 20 | MAKING LEFT TURN | N | PICKUP TRUCK/UTILITY VAN | 30 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | DRIVER INEXPERIENCE | NO APPARENT VIOL |
| UK | MAKING LEFT TURN | E | PASS CAR/VAN | 35 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | NONE | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | NW | PASS CAR/VAN | UK | MAKING LEFT TURN | RIDGE RD |  | DELL RANGE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| UK | MAKING LEFT TURN | W | PASS CAR/VAN | 30 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | NONE | NO APPARENT VIOL |
| 20 | MAKING LEFT TURN | E | PICKUP TRUCK/UTILITY VAN | 35 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | NONE | NO APPARENT VIOL |
| 20 | MAKING LEFT TURN | S | PASS CAR/VAN | 35 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | DRIVER INATTENTION | NO APPARENT VIOL |
| UK | MAKING LEFT TURN | E | PASS CAR/VAN | 40 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | NONE | NO APPARENT VIOL |
| 40 | GOING STRAIGHT | E | PASS CAR/VAN | 5 | MAKING LEFT TURN | RIDGE RD |  | DELL RANGE | NO APPARENT VIOL | NONE |
| 15 | MAKING LEFT TURN | W | PASS CAR/VAN | 35 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | NONE | NO APPARENT VIOL |
| 5 | MAKING LEFT TURN | N | MOTORCYCLE | 30 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | NONE | NO APPARENT VIOL |
| 10 | MAKING LEFT TURN | W | PASS CAR/VAN | 35 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | TURNING IMPROP | NO APPARENT VIOL |
| UK | MAKING LEFT TURN | S | PASS CAR/VAN | 25 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | TURNING IMPROP | NO APPARENT VIOL |
| 20 | MAKING LEFT TURN | E | PICKUP TRUCK/UTILITY VAN | 40 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | DRIVER INATTENTION | NO APPARENT VIOL |
| 10 | MAKING LEFT TURN | E | PASS CAR/VAN | 40 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | DRIVER FATIGUE | NO APPARENT VIOL |
| 5 | MAKING LEFT TURN | E | PASS CAR/VAN | 35 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | NONE | NO APPARENT VIOL |
| 30 | MAKING LEFT TURN | N | PICKUP TRUCK/UTILITY VAN | 30 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | NONE | NO APPARENT VIOL |
| 10 | MAKING LEFT TURN | N | PASS CAR/VAN | 30 | GOING STRAIGHT | RIDGE RD |  | DELL RANGE | NONE | NO APPARENT VIOL |
| 5 | MAKING RIGHT TURN | W | PICKUP TRUCK/UTILITY VAN | 35 | MAKING RIGHT TURN | RIDGE RD |  | DELL RANGE | DRIVER INATTENTION | NO APPARENT VIOL |
| 5 | MAKING RIGHT TURN | E | BICYCLE | UK | OTHER | RIDGE RD |  | DELL RANGE | NONE | OTHER |




| date | time | severity | serial | road desc | vehicles condition | lighting | weather | ramp | acctype | dir_1 | vehicle_1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1/21/2002 | 1345 | PDO | 202200789 | AT INTERSECTION | 2 DRY | DAYLIGHT | NONE | N | BROADSIIDE |  | PICKUP TRUCK/UTLITY VAN |
| 3/1312002 |  |  | 200203899 | At INTERSECTION | 2 DRY | DAYLIGHT | NONE | N | BROADSIDE |  | PASS CARVAN |
| 4/212002 | 1336 | PDO | 200205248 | AT INTERSECTION | 3 DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PAss carivan |
| 81182002 | 1047 | PDO | 200212822 | AT INTERSECTION | 2 DRY | DAYLIGHT | NONE | N | BROADSIDE | w | PAss CARIVAN |
| 8/2512002 | 0311 | PDO | 200213220 | At intersection | 2 DRY | DARK-LIGHTED | NONE | N | BROADSIDE | E | PAss CARIVAN |
| 911212002 | 1839 | PDO | 200214686 | AT INTERSECTION | 2 DRY | DAYLIGHT | NONE | N | BROADSIDE | w | PICKUP TRUCKIUTLITYY VAN |
| 12/10/2002 | 1408 | PDO | 200220033 | AT INTERSECTION | 3 DRY | DAYLIGHT | NONE | N | BROADSIDE | S | PASS CARIVAN |
| 12/21/2002 | 0741 | PDO | 200220726 | AT INTERSECTION | 2 DRY | DAYLIGHT | NONE | N | BROADSIDE | w | OTHER - SEE REPOR |
| 4/1512003 | 0111 | INJ | 200305778 | At intersection | 2 DRY | DARK-UNLIGHTED | NONE | N | BROADSIDE | E | PASS CARIVAN |
| 5/1/2004 | 0322 | INJ | 200406627 | at intersection | 2 DRY | DARK-UNLIGHTED | NONE | N | BROADSIDE | E | OTHER - SEE REPORT |
| 612772004 | 1540 | PDO | 200409319 | AT INTERSECTION | 2 DRY | DAYLIGHT | NONE | N | BROADSIIE | W | PICKUP TRUCKIUTLITY VAN |
| 97712004 | 0550 | INJ | 200413789 | AT INTERSECTION | 2 DRY | DAWN OR DUSK | NONE | N | BROADSIDE | w | PASS CARIVAN |
| 21512005 | 0224 | PDO | 200503015 | at intersection | 2 ICY | DARK-LIGHTED | SNOW/SLEET/HALL | N | BROADSIDE | E | PAss carvan |
| 7/27/2005 | 0414 | INJ | 200511303 | At intersection | 2 DRY | DARK-LIGHTED | NONE | N | BROADSIIE | E | PICKUP TRUCKIUTLITY VAN |
| 101/1/2005 | 0254 | INJ | 200515851 | AT INTERSECTION | 2 DRY | DARK-LIGHTED | NONE | N | BROADSIDE | w | PASS CARIVAN |
| 11/12/2005 | 0435 | PDO | 200517797 | AT INTERSECTION | 2 WET | DARK-LIGHTED | RAIN | N | BROADSIDE | E | PASS CARIVAN |
| 11/1912005 | 1441 | PDO | 200517891 | AT INTERSECTION | 2 DRY | DAYLIGHT | NONE | N | BROADSIDE | S | PICKUP TRUCKIUTLITY VAN |
| 2/1612006 | 0117 | INJ | 200602788 | AT INTERSECTION | 2 SNOWY | DARK-LIGHTED | SNOW/SLEET/HALL | N | BROADSIDE | N | OTHER - SEE REPORT |
| 2/23/2006 | 1118 | PDO | 200603432 | At intersection | 2 SLUSHY | DAYLIGHT | NONE | N | BROADSIDE |  | PASS CARIVAN |
| 4/28/2006 | 1240 | PDO | 200607053 | at intersection | 2 DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PAss CARIVAN |
| 6/3012006 | 0645 | INJ | 200610676 | AT INTERSECTION | 2 DRY | DAYLIGHT | NONE | N | BROADSIDE |  | PASS CARIVAN |
| 7/3/2006 | 0059 | PDO | 200610642 | AT INTERSECTION | 2 DRY | DARK-LIGHTED | NONE | N | BROADSIDE | E | PAss CARIVAN |
| 711020006 | 1806 | PDO | 20061197 | AT INTERSECTION | 3 DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PICKUP TRUCKIUTLITYY VAN |
| 7/25/2006 | 1406 | INJ | 20061879 | AT INTERSECTION | 2 DRY | DAYLIGHT | NONE | N | BROADSIIE | E | PASS CARIVAN |
| 8/29/2006 | 0001 | INJ | 200614222 | AT INTERSECTION | 2 DRY | DARK-LIGHTED | NONE | N | BROADSIDE | S | PAss CARNAN |
| 10117/2006 | 2032 |  | 200616974 | AT INTERSECTION | 2 ICY | DAYLIGHT | SNOW/SLEET/HALL | N | BROADSIDE |  | PAss CARIVAN |
| 11/12/2006 | 1817 | INJ | 200619134 | AT intersection | 2 DRY | DARK-LIGHTED | NONE | N | BROADSIIE | N | PAss carvan |
| 12/15/2006 | 1128 | INJ | 200620516 | AT INTERSECTION | 3 DRY | DAYLIGHT | NONE | N | BROADSIIE | E | PASS CARNAN |
| 1/8/2007 | 1034 | PDO | 20070482 | At intersection | 2 DRY | DAYLIGHT | NONE | N | BROADSIIE |  | PAss carivan |
| 2/14/2007 | 1337 | INJ | 200703273 | At intersection | 2 DRY | DAYLIGHT | SNOW/SLEET/HALL | N | BROADSIDE | s | TRUCK GVW > 10kIBUSSES > 15 PEOPLE |
| 4/5/2007 | 2203 | PDO | 200705977 | AT INTERSECTION | 2 WET | DARK-LIGHTED | SNOW/SLEET/HAIL | N | BROADSIDE | E | PASS CARIVAN |
| 4/2882007 | 0000 | iNJ | 200707597 | AT INTERSECTION | 2 DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PAss CARIVAN |
| 5/27/2007 | 1848 | PDO | 200708666 | AT INTERSECTION | 2 DRY | DAYLIGHT | NONE | N | BROADSIIE |  | PAss carlvan |
| 10/13/2007 | 1620 | INJ | 200717316 | AT INTERSECTION | 2 WET | DAYLIGHT | RAIN | N | BROADSIIE | E | PAss carivan |
| 12/16/2007 | 1245 | PDO | 200722621 | AT INTERSECTION | 2 WET | DAYLIGHT | NONE | N | BROADSIIE | E | PICKUP TRUCKIUTLITY VAN |
| 9/10/2002 | 1100 | PDO | 200214224 | INTERSECTION RELATED | 3 DRY | DAYLIGHT | NONE | N | REAR-END |  | PASS CARIVAN |
| 48/2003 | 1631 | PDO | 200305459 | INTERSECTION RELATED | 2 DRY | DAYLIGHT | NONE | N | REAR-END | s | PICKUP TRUCKIUTLITYY VAN |
| 512512004 | 1729 | PDO | 200407665 | INTERSECTION RELATED | 2 WET | DAYLIGHT | NONE | N | REAR-END | N | PASS CARNAN |
| 791/2004 | 1510 | PDO | 200410035 | INTERSECTION RELATED | 2 DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CAR/VAN |
| 9/1312004 | 1608 | PDO | 200413978 | INTERSECTION RELATED | 2 WET | DAYLIGHT | NONE | N | REAR-END | N | PASS CARNVAN |
| 10/2/2004 | 1304 | PDO | 200414270 | INTERSECTION RELATED | 2 DRY | DAYLIGHT | NONE | N | REAR-END | N | PICKUP TRUCKIUTLITY VAN |
| 2/232005 | 1413 | PDO | 200503436 | AT INTERSECTION | 2 DRY | DAYLIGHT | NONE | N | REAR-END | S | PASS CARIVAN |
| 2/2312005 | 1441 | INJ | 200503435 | INTERSECTION RELATED | 2 DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CARIVAN |
| $781 / 2005$ | 1645 | PDO | 200510137 | INTERSECTION RELATED | 2 DRY | DAYLIGHT | NONE | N | REAR-END | s | PAss CARIVAN |
| 1013/2006 | 1445 | PDO | 200616193 | INTERSECTION RELATED | 2 DRY | DAYLIGHT | NONE | N | REAR-END | S | PASS CARIVAN |
| 11/21/2006 | 1730 | PDO | 200619606 | INTERSECTION RELATED | 4 DRY | DARK-LIGHTED | NONE | N | REAR-END | N | PICKUP TRUCKIUTLITY VAN |
| 12/16/2007 | 1325 | INJ | 200722620 | INTERSECTION RELATED | 2 WET | DAYLIGHT | NONE | N | REAR-END | N | PICKUP TRUCKIUTLITY VAN |
| 101712005 | 1552 | PDO | 200515175 | AT INTERSECTION | 2 DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | S | PASS CAR/VAN |
| 5/10120006 | 1805 | PDO | 200607868 | AT INTERSECTION | 2 DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | w | PAss CAR/VAN |
| 8/11/2005 | 1524 | INJ | 200512165 | AT INTERSECTION | 3 WET | DAYLIGHT | NONE | N | SIDESWIPE OPPOSITE DIRECTION | E | PASS CARNAN |
| 8/11/2002 | 1643 | PDO | 200212429 | At intersection | 2 DRY | DAYLIGHT | NONE | N | APPROACH TURN | S | PAss carivan |
| 121712002 | 2240 | PDO | 202219860 | AT INTERSECTION | 2 DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | w | PASS CARIVAN |
| 1/2012004 | 2120 | PDO | 200401115 | AT INTERSECTION | 2 DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | N | PAss carivan |
| $719 / 2004$ | 1837 | INJ | 200410179 | AT INTERSECTION | 3 DRY | DAYLIGHT | NoNE | N | APPROACH TURN | N | PASS CARIVAN |
| 9/21/2004 31120050 | 0650 | PDO | 200414226 | AT INTERSECTION | 2 WET | DAWN OR DUSK | RAIN | N | APPROACH TURN | N | Pass carivan |
| 3/1/2005 | 1517 | PDO | 200503568 | AT INTERSECTION | ${ }_{2}^{2}$ 2 DRY | ${ }^{\text {DAYLIGHT }}$ DAYLIGHT | NONE | N | APPROACH TURN | E | PASS CARNAN |
| 41882005 | 1517 | INJ | 200506025 | At intersection | 2DRY | DAYLIGHT | NONE | N | APPROACH TURN | E | PASSCARIVAN |


| speed 1 | veh move 1 | dir_2 | vehicle 2 | speed 2 | veh move 2 |  |  | loc 02 | violcode 1 | violcode 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 40 | GOING STRAIGHT | E | PICKUP TRUCKIUTLITY VAN | 40 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | NO APPARENT VIOL | NONE |
| 30 | GOING STRAIGHT | N | PASS CARNAN | 5 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | NO APPARENT VIOL | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | E | pass carnan | 30 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 15 | GOING STRAIGHT | s | PICKUP TRUCKIUTLLTY VAN | 35 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 40 | GOING STRAIGHT | N | PICKUP TRUCKIUTLITY VAN | 40 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | ALCOHOL INVOLV | NO APPARENT VIOL |
| 15 | MAKING LEFT TURN | s | pass carnan | 40 | GOING STRAIGHT | College dr |  | PERSHING | TURNING IMPROP | NO APPARENT VIOL |
| UK | GOING STRAIGHT | E | PASS CARNAN | 4 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | s | PICKUP TRUCKIUTLITY VAN | 40 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | DRIVER INATTENTION | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | s | TRUCK GVW > 10 K /BUSSES $>15$ PEOPLE | 35 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| UK | GOING STRAIGHT | N | TRUCK GVW > 10K/BUSSES > 15 PEOPLE | UK | GOING STRAIGHT | COLLEGE DR |  | PERSHING | NONE | NO APPARENT VIOL |
|  | GOING STRAIGHT | N | PASS CARNAN | 15 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | DRIVER INATTENTION | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | N | PASS CARNAN | 40 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | NO APPARENT VIOL | DRIVER INATTENTION |
|  | SLowing | s | pass carnan | 30 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | UNSAFE SPD FOR CO | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | s | Pass Carnan | 40 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | s | PICKUP TRUCKIUTLITTY VAN | 40 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 15 | MAKING LEFT TUR | N | PICKUP TRUCKIUTLITY VAN | 30 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | PSGR DISTRACTN | NO APPARENT VIOL |
|  | GOING STRAIGHT | E | PASS CARNAN | 40 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 12 | GOING STRAIGHT | E | PASS CARNAN | 40 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | NO APPARENT VIOL | ALCOHOL INVOLV |
| 35 | GOING STRAIGHT | N | PAss CARNAN | 35 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIO |
|  | STOPPED IN TRAFFIC |  | PAss CARNAN | 25 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | NO APPARENT VIOL | NONE |
| 20 | GOING STRAIGHT | w | PASS CARNAN | 30 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | DRIVER INEXPERIENC | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | s | PAss carnan | 40 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | PSGR DISTRACTN | NO APPARENT VIOL |
|  | GOING STRAIGHT | N | pass carnan | 5 | STARTING IN TRAFFIC | College dr |  | PERSHING | DRIVER INATTENTION | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | N | Pass carnan | 7 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 40 | GOING STRAIGHT | E | PICKUP TRUCKIUTILITY VAN | 40 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
|  | GOING STRAIGHT | w | PASS CARNAN | 5 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| 20 | MAKING LEFT TURN | E | PAss CARNAN | 35 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | s | Pass carnan | 40 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | DRIVER INATTENTION | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | E | PAss CARNAN | 5 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
|  | GOING STRAIGHT | E | Pass Carnan | 15 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | DRIVER INATTENTION | DRIVER INATTENTIO |
| 10 | GOING STRAIGHT | N | PICKUP TRUCKIUTILITY VAN | 40 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| UK | GOING STRAIGHT | s | PICKUP TRUCKIUTLITYY VAN | 10 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | TRAF CNTRL DISREG | TRAF CNTRL DISREG |
|  | GOING STRAIGHT | E | pass carnan | 20 | STARTING IN TRAFFIC | College dr |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | s | PICKUP TRUCKIUTLITTY VAN | 40 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | TRAF CNTRL DISREG | UNKNOWN |
| UK | GOING STRAIGHT | N | PICKUP TRUCKIUTLITY VAN | 30 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
|  | sLowing | s | PASS CARNAN | 0 | STOPPED IN TRAFFIC | COLLEGE DR |  | PERSHING | PHYSICAL DISABILITY | NO APPARENT VIOL |
| 30 | sLowing | s | PASS CARNAN | 0 | STOPPED IN TRAFFIC | COLLEGE DR |  | PERSHING | NONE | NO APPARENT VIOL |
| 30 | slowing | N | PASS CARNAN | 30 | slowing | COLLEGE DR |  | PERSHING | NONE | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | N | PICKUP TRUCKIUTLITY VAN | 0 | STOPPED IN TRAFFIC | COLLEGE DR |  | PERSHING | DRIVER INATTENTION | NO APPARENT VIOL |
|  | GOING STRAIGHT | N | PICKUP TRUCKIUTLITY VAN | 0 | STOPPED IN TRAFFIC | COLLEGE DR |  | PERSHING | DRIVER INATTENTION | NO APPARENT VIOL |
| 55 | GOING STRAIGHT | N | PICKUP TRUCKIUTLITY VAN | 5 | MAKING RIGHT TURN | COLLEGE DR |  | PERSHING | NO APPARENT VIOL | NONE |
|  | GOING STRAIGHT | s | PASS CARNAN | 5 | SLOWING | COLLEGE DR |  | PERSHING | DRIVER INATTENTION | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | N | pass carnan | 0 | STOPPED IN TRAFFIC | College dr |  | PERSHING | NONE | NO APPARENT VIOL |
| 3 | OTHER | s | Pass carnan | 0 | STOPPED IN TRAFFIC | COLLEGE DR |  | PERSHING | DRIVER INATTENTION | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | s | PICKUP TRUCKIUTLITTY VAN | 0 | STOPPED IN TRAFFIC | COLLEGE DR |  | PERSHING | NONE | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | N | PAss CARNAN | 0 | STOPPED IN TRAFFIC | COLLEGE DR |  | PERSHING | DRIVER INATTENTION | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | N | PAss CARNAN | 0 | STOPPED IN TRAFFIC | COLLEGE DR |  | PERSHING | NONE | NO APPARENT VIOL |
| 10 | MAKING RIGHT TURN | w | PAss CARNAN | 35 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | DRIVER INATTENTION | NO APPARENT VIOL |
| 5 | MAKING RIGHT TURN | w | PASS CARNAN | 35 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | TURNING IMPROP | NO APPARENT VIOL |
| 40 | GOING STRAIGHT | w | PASS CARNAN | UK | MAKING RIGHT TURN | COLLEGE DR |  | PERSHING | NO APPARENT VIOL | NO APPARENT VIOL |
| 40 | GOING STRAIGHT | N | PICKUP TRUCKIUTLITY VAN | 10 | MAKING LEFT TURN | COLLEGE DR |  | PERSHING | ALCOHOL INVOLV | NONE |
| 20 | MAKING LEFT TURN | E | PICKUP TRUCKIUTLITYY VAN | 30 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | TURNING IMPROP | NO APPARENT VIOL |
| 40 | GOING STRAIGHT | s | pass carnan | 10 | MAKING LEFT TURN | College dr |  | PERSHING | NO APPARENT VIOL | NON |
| UK | MAKING LEFT TURN | s | PASS CARNAN | 45 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | NONE | DRIVER INEXPERIENCE |
| 15 | MAKING LEFT TURN | S | PICKUP TRUCKIUTILITY VAN | 38 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | NONE | NO APPARENT VIOL |
|  | MAKING LEFT TURN | w | PAss CARNAN | 30 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | NONE | NO APPARENT VIOL |
| 15 | GOING STRAIGHT | w | PASS CARNAN | 30 | GOING STRAIGHT | COLLEGE DR |  | PERSHING | TURNING IMPRC | NO APPARENT VIOL |





| - Contributing Factor | Veh 1 - Veh 2 - Veh 3 - |  |  | Veh 1 - Veh 2 - Veh 3 - |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No Apparent Contributing Factor: | 0 | 0 | 0 | North: | 15 | 13 | 0 |
| Asleep at the Wheel: | 0 | 0 | 0 | Northeast: | 2 | 1 | 0 |
| Illness: | 0 | 0 | 0 | East: | 88 | 113 | 0 |
| Distracted by Passenger: | 0 | 0 | 0 | Southeast: | 1 | 0 | 0 |
| Driver Inexperience: | 0 | 0 | 0 | South: | 10 | 19 | 0 |
| Driver Fatigue: | 0 | 0 | 0 | Southwest: | 3 | 1 | 0 |
| Driver Preoccupied: | 0 | 0 | 0 | West: | 87 | 56 | 0 |
| Driver Unfamilar with Area: | 0 | 0 | 0 | Northwest: | 1 | 1 | 0 |
| Driver Emotionally Upset: | 0 | 0 | 0 | Unknown: | 1 | 1 | 44 |
| Evading Law Enforcement Officier: | 0 | 0 | 0 | Total: | 208 | 205 | 44 |
| Physical Disability: | 0 | 0 | 0 |  | 208 | 205 | 4 |
| Unknown: | 208 | 205 | 44 |  |  |  |  |
| Total: | 208 | 205 | 44 |  |  |  |  |
| Condition of Driver | 1 | 2 | 3 |  |  |  |  |
| No Impairment Suspected: | 0 | 0 | 0 |  |  |  |  |
| Alcohol Involved: | 0 | 0 | 0 |  |  |  |  |
| RX Drugs or Medication Involved: | 0 | 0 | 0 |  |  |  |  |
| Illegal Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Alcohol and Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Driver/Pedestrian not Observed: | 0 | 0 | 0 |  |  |  |  |
| Unknown: | 208 | 205 | 44 |  |  |  |  |
| Total: | 208 | 205 | 44 |  |  |  |  |


| date | time | severity | serial | road_desc | vehicles | condition | lighting | weather | ramp | acctype | dir_1 | vehicle_1 | speed_1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3/13/2002 | 1221 | INJ | 200203901 | AT INTERSECTION |  | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PASS CARIVAN | 15 |
| 7/17/2002 | 1246 | PDO | 200210894 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | w | PICKUP TRUCK/UTILITY VAN | 10 |
| 8/26/2002 | 0730 | PDO | 200213225 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | w | PICKUP TRUCK/UTILITY VAN | 40 |
| 11/3/2002 | 1432 | PDO | 200217407 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | S | PASS CARIVAN | UK |
| 3/17/2003 | 1526 | INJ | 200304161 | AT INTERSECTION | 4 | WET | DAYLIGHT | RAIN | N | BROADSIDE | E | PASS CARIVAN | 40 |
| 4/24/2003 | 1740 | INJ | 200306162 | AT INTERSECTION | 3 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PASS CARIVAN | 30 |
| 7/3/2004 | 1829 | INJ | 200409941 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | S | PASS CAR/VAN | UK |
| 8/24/2004 | 1058 | INJ | 200412993 | AT INTERSECTION | 3 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PICKUP TRUCK/UTILITY VAN | 35 |
| 10/14/2004 | 0645 | PDO | 200415438 | AT INTERSECTION | 2 | DRY | DARK-UNLIGHTED | NONE | N | BROADSIDE | S | PASS CAR/VAN | 10 |
| 5/5/2005 | 1434 | INJ | 200506312 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PASS CAR/VAN | 35 |
| 7/22/2005 | 1321 | PDO | 200511102 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | w | PASS CARIVAN | 40 |
| 8/24/2005 | 1330 | PDO | 200512686 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PASS CARIVAN | 28 |
| 10/16/2005 | 1340 | PDO | 200515919 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PASS CARIVAN | 5 |
| 11/28/2005 | 1816 | PDO | 200518429 | AT INTERSECTION | 4 | DRY | DARK-LIGHTED | WIND | N | BROADSIDE | S | PICKUP TRUCKIUTILITY VAN | 5 |
| 12/21/2005 | 1223 | INJ | 200520535 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PASS CAR/VAN | 40 |
| 7/20/2006 | 2335 | PDO | 200611778 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | E | PASS CAR/VAN | 40 |
| 8/16/2006 | 1815 | INJ | 200613615 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PICKUP TRUCK/UTILITY VAN | 40 |
| 9/2/2006 | 1858 | PDO | 200614437 | AT INTERSECTION | 2 | DRY | DAYLIGHT | SNOW/SLEET/HAIL | N | BROADSIDE | W | PASS CARIVAN | 35 |
| 9/12/2006 | 1154 | INJ | 200614927 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PICKUP TRUCK/UTILITY VAN | 38 |
| 2/6/2002 | 1733 | PDO | 200201855 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PICKUP TRUCK/UTILITY VAN | 35 |
| 1/8/2004 | 1230 | INJ | 200400393 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CAR/VAN | 5 |
| 5/5/2004 | 1948 | INJ | 200406659 | INTERSECTION RELATED | 3 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CARIVAN | 25 |
| 6/9/2004 | 1511 | PDO | 200408433 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | W | PASS CAR/VAN | 0 |
| 1/7/2005 | 1734 | INJ | 200500323 | INTERSECTION RELATED | 2 | DRY | DAWN OR DUSK | NONE | N | REAR-END | N | PASS CARIVAN | 5 |
| 2/9/2005 | 1309 | PDO | 200502451 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | S | PICKUP TRUCK/UTILITY VAN | 9 |
| 3/25/2005 | 1330 | INJ | 200504726 | AT INTERSECTION |  | DRY | DAYLIGHT | NONE | N | REAR-END | E | PASS CARIVAN | 15 |
| 6/1/2005 | 1206 | PDO | 200508336 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PICKUP TRUCK/UTILITY VAN | 10 |
| 8/25/2005 | 1325 | INJ | 200512735 | INTERSECTION RELATED |  | DRY | DAYLIGHT | NONE | N | REAR-END | E | PASS CARIVAN | 20 |
| 2/9/2006 | 1828 | PDO | 200602350 | INTERSECTION RELATED |  | SNOWY | DARK-LIGHTED | SNOW/SLEET/HAIL | N | REAR-END | S | PICKUP TRUCK/UTILITY VAN | 15 |
| 12/18/2006 | 1005 | INJ | 200621383 | INTERSECTION RELATED | 2 | ICY | DAYLIGHT | NONE | N | REAR-END | N | PASS CARVAN | 10 |
| 9/24/2007 | 1145 | PDO | 200716543 | INTERSECTION RELATED | 3 | WET | DAYLIGHT | RAIN | N | REAR-END | N | PASS CAR/VAN | 35 |
| 5/4/2006 | 0825 | PDO | 200607107 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | N | PASS CAR/VAN | 0 |
| 3/6/2007 | 1421 | PDO | 200704524 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | N | PICKUP TRUCKIUTILITY VAN | 15 |
| 8/22/2002 | 1229 | INJ | 200213023 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PASS CARIVAN | 20 |
| 10/13/2002 | 1857 | INJ | 200216032 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | w | PASS CARIVAN | 10 |
| 10/18/2002 | 0034 | PDO | 200216383 | AT INTERSECTION | 2 | DRY | DARK-UNLIGHTED | NONE | N | APPROACH TURN | W | PASS CAR/VAN | 15 |
| 10/29/2002 | 1525 | INJ | 200217145 | AT INTERSECTION | 2 | SNOWY | DAYLIGHT | SNOW/SLEET/HAIL | N | APPROACH TURN | E | PASS CARIVAN | UK |
| 11/19/2002 | 1720 | INJ | 200218641 | AT INTERSECTION |  | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | W | PASS CAR/VAN | 10 |
| 12/22/2002 | 1503 | PDO | 200220714 | INTERSECTION RELATED |  | WET | DAYLIGHT | SNOW/SLEET/HAIL | N | APPROACH TURN | N | PASS CAR/VAN | 0 |
| 5/2/2003 | 0026 | PDO | 200306536 | AT INTERSECTION |  | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | W | PASS CAR/VAN | 10 |
| 6/14/2003 | 2351 | INJ | 200308618 | AT INTERSECTION |  | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | W | PASS CARIVAN | 20 |
| 8/26/2003 | 2248 | PDO | 200312988 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | W | PASS CAR/VAN | UK |
| 10/21/2003 | 1156 | INJ | 200316015 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PASS CAR/VAN | 15 |
| 11/21/2003 | 1648 | PDO | 200318582 | AT INTERSECTION |  | WET | DAYLIGHT | SNOW/SLEET/HAIL | N | APPROACH TURN | E | PASS CAR/VAN | 25 |
| 1/6/2004 | 2303 | INJ | 200400330 | AT INTERSECTION | 3 | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | W | PASS CAR/VAN | 25 |
| 1/19/2004 | 2100 | PDO | 200401110 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | W | UNKNOWN | UK |
| 216/2004 | 1637 | INJ | 200401948 | AT INTERSECTION | 4 | WET | DAYLIGHT | NONE | N | APPROACH TURN | E | PASS CAR/VAN | 30 |
| 3/8/2004 | 2209 | PDO | 200404050 | AT INTERSECTION | 2 | DRY | DARK-UNLIGHTED | NONE | N | APPROACH TURN | W | PASS CARIVAN | 15 |
| 3/15/2004 | 1539 | PDO | 200404346 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | E | PASS CARIVAN | 10 |
| 6/12/2004 | 2317 | PDO | 200408821 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | W | PASS CAR/VAN | 20 |
| 7/30/2004 | 2019 | INJ | 200411215 | AT INTERSECTION | 2 | DRY | DAWN OR DUSK | NONE | N | APPROACH TURN | W | PASS CAR/VAN | 10 |
| 8/5/2004 | 1345 | PDO | 200411820 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PASS CARIVAN | 15 |
| 11/6/2004 | 0948 | INJ | 200416896 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | E | PASS CARIVAN | 10 |
| 11/19/2004 | 1805 | INJ | 200418263 | AT INTERSECTION |  | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | W | PASS CAR/VAN | 10 |
| 1/3/2005 | 1829 | INJ | 200500244 | AT INTERSECTION |  | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | W | PASS CAR/VAN | 10 |
| 2/2/2005 | 1905 | PDO | 200501793 | AT INTERSECTION |  | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | W | PASS CAR/VAN | 20 |


| veh_move_1 | dir_2 | vehicle_2 | speed_2 | veh_move_2 | loc_01 | link | loc_02 | violcode_1 | violcode_2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MAKING LEFT TURN | W | PASS CARNAN | 20 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CARNAN | 10 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | OTHER | DRIVER INATTENTION |
| GOING STRAIGHT | S | PASS CARNAN | 15 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PASS CARNAN | 35 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | S | PICKUP TRUCK/UTILITY VAN | 15 | STARTING IN TRAFFIC | CONVERSE |  | DELL RANGE | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | E | PASS CARNAN | 40 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | PRESCRIPTION/MED | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PASS CARNAN | 35 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | OTHER |
| GOING STRAIGHT | S | PICKUP TRUCK/UTILITY VAN | 15 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PICKUP TRUCK/UTILITY VAN | 40 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CARNAN | 20 | MAKING LEFT TURN | CONVERSE |  | DELL RANGE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CARNAN | 35 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CARNAN | 30 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CARNAN | 10 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PASS CARNAN | 30 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CARNAN | 30 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | ILLNESS | NO APPARENT VIOL |
| GOING STRAIGHT | N | PASS CARNAN | UK | MAKING LEFT TURN | CONVERSE |  | DELL RANGE | NO APPARENT VIOL | UNKNOWN |
| GOING STRAIGHT | S | PASS CARNAN | 25 | MAKING LEFT TURN | CONVERSE |  | DELL RANGE | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CAR/VAN | 10 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CARNAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | N | PASS CARNAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | DELL RANGE | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | N | PASS CARNAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | DELL RANGE | OTHER | NO APPARENT VIOL |
| SLOWING | N | PASS CARNAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | DELL RANGE | DRIVER INEXPERIENCE | NO APPARENT VIOL |
| STOPPED IN TRAFFIC | W | PASS CARNAN | 10 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NO APPARENT VIOL | DRIVER INATTENTION |
| STARTING IN TRAFFIC | N | PASS CARNAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CARNAN | 10 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NO APPARENT VIOL | NONE |
| GOING STRAIGHT | E | PASS CARNAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| STARTING IN TRAFFIC | N | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | DELL RANGE | DRIVER INATTENTION | NO APPARENT VIOL |
| SLOWING | E | PASS CARNAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| SLOWING | S | PASS CARNAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | DELL RANGE | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| GOING STRAIGHT | N | PASS CARNAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | DELL RANGE | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| GOING STRAIGHT | N | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| STOPPED IN TRAFFIC | N | TRUCK GVW > 10K/BUSSES > 15 PEOPLE | 10 | MAKING RIGHT TURN | CONVERSE |  | DELL RANGE | NONE | NONE |
| MAKING LEFT TURN | N | PICKUP TRUCK/UTILITY VAN | 10 | MAKING LEFT TURN | CONVERSE |  | DELL RANGE | ALCOHOL INVOLV | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PASS CARNAN | 35 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PASS CARNAN | 40 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | TURNING IMPROP | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PASS CAR/VAN | 30 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | W | PASS CARNAN | UK | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PASS CARNAN | 10 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| STOPPED IN TRAFFIC | S | PICKUP TRUCK/UTILITY VAN | 40 | MAKING RIGHT TURN | CONVERSE |  | DELL RANGE | NO APPARENT VIOL | UNSAFE SPD FOR COND |
| MAKING LEFT TURN | E | PASS CARNAN | 30 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PASS CARNAN | 40 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PASS CARNAN | 40 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | DRIVER INATTENTION | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PASS CARNAN | 40 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| SLOWING | W | PASS CAR/VAN | 10 | MAKING LEFT TURN | CONVERSE |  | DELL RANGE | UNSAFE SPD FOR COND | NONE |
| MAKING LEFT TURN | E | PASS CARNAN | 40 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PASS CAR/VAN | 25 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | UNKNOWN | NO APPARENT VIOL |
| GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | UK | MAKING LEFT TURN | CONVERSE |  | DELL RANGE | TRAF CNTRL DISREG | OTHER |
| MAKING LEFT TURN | E | PICKUP TRUCK/UTILITY VAN | 35 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | W | PASS CAR/VAN | 30 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | DRIVER INEXPERIENCE | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PASS CAR/VAN | 40 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | DRIVER INATTENTION | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PASS CAR/VAN | 40 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PASS CAR/VAN | 40 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | W | PASS CAR/VAN | 30 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PICKUP TRUCK/UTILITY VAN | 40 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PICKUP TRUCK/UTILITY VAN | 30 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | UNSAFE SPD FOR COND |
| MAKING LEFT TURN | E | PASS CAR/VAN | 40 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |

 | vehicle_1 |
| :--- |
| PASS CAR/VAN |
| PASS CAR/VAN |
| PASS CAR/NAN |
| PASS CAR/VAN |
| PASS CAR/VAN |
| PICKUP TRUCKIUTILITY VAN |
| PASS CAR/VAN |
| PASS CAR/VAN |
| PASS CAR/VAN |
| PICKUP TRUC/UTILITY VAN |
| PASS CAR/VAN |
| PASS CAR/VAN |
| PASS CAR/VAN |
| PICKUP TRUCKIUTILITY VAN |
| PASS CAR/VAN |
| PASS CAR/VAN |
| PICKUP TRUCK/UTILITY VAN |
| PIIKUP TRUC/UTLITY VAN |
| PICKUP TRUCK/UTILITY VAN |
| PASS CAR/VAN |
| PASS CAR/VAN |
| PASS CAR/AN |
| PASS CAR/VAN |
| PASS CAR/VAN |
| PASS CAR/VAN |
| PASS CAR/NAN |
| PASS CAR/VAN |
| PASS CAR/VAN |
| PICKUP TRUCKIUTIIITY VAN |
| PIIKUP TRUCK/UTILITY VAN |
| PASS CAR/VAN |
| PASS CAR/VAN |
| PASS CAR/VAN |
| PASS CAR/NAN |
| PICKUP TRUCK/UTILITY VAN |
| PICKUP TRUCK/UTILITY VAN |
| PICKUP TRUC/UTILITY VAN |
| PASS CAR/VAN |
| PICKUP TRUCK/UTILITY VAN |
| PASS CAR/VAN |
| PASS CAR/VAN |
| PICKUP TRUCK/UTILITY VAN |
| PASS CAR/VAN |
| PASS CAR/VAN |
| PASS CAR/AN |
| PASS CAR/VAN |
| PASS CAR/VAN |
| PASS CAR/VAN |
| PASS CAR/ANN |
| PICKUP TRUCK/UTILITY VAN |
| PASS CAR/VAN |
| PASS CAR/VAN |
| PASS CAR/NAN |
| PASS CAR/VAN |
| PASS CAR/VAN |
| PASS CAR/VAN |




| veh_move 1 | \|dir_2 | vehicle 2 | speed_2 | veh move 2 | loc 01 | \|link| | loc 02 | violcode_1 | violcode_2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MAKING LEFT TURN | E | PASS CARNAN | 40 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | TURNING IMPROP | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PASS CARNAN | 30 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | TURNING IMPROP | NO APPARENT VIOL |
| MAKING LEFT TURN | E | TRUCK GVW > 10K/BUSSES > 15 PEOPLE | 40 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PASS CARNAN | 35 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NONE |
| MAKING LEFT TURN | E | PAsS CARNAN | 30 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | w | PAss CARNAN | 10 | MAKING LEFT TURN | CONVERSE |  | DELL RANGE | DRIVER INATTENTION | NONE |
| MAKING LEFT TURN | E | MOTORCYCLE | 35 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | E | PASS CARNAN | 10 | MAKING LEFT TURN | CONVERSE |  | DELL RANGE | TRAF CNTRL DISREG | NONE |
| MAKING LEFT TURN |  | PASS CARNAN | 35 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PAss CARNAN | 35 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | w | PASS CARNAN | 25 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | TURNING IMPROP | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PICKUP TRUCKIUTILTY VAN | 40 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PASS CARNAN | 35 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PASS CARNAN | 40 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NO APPARENT VIOL | TRAF CNTRL DISREG |
| MAKING LEFT TURN | E | PICKUP TRUCKIUTLITY VAN | 35 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | w | UNKNOWN | UK | GOING STRAIGHT | CONVERSE |  | DELL RANGE | TRAF CNTRL DISRE | UNKNOWN |
| MAKING LEFT TURN | w | PASS CARNAN | 30 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | ALCOHOL INVOLV | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PASS CARNAN | 40 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PAss CARNAN | 40 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | TURNING IMPROP | DRIVER INEXPERIENCE |
| MAKING LEFT TURN | E | PAsS CARNAN | 40 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PAss CARNAN | 40 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | w | PASS CARNAN | 30 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | E | pass carnan | 40 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | w | PAss CARNAN | 30 | GOING STRAIGHT | CONVERSE |  | DELL RANGE | TURNING IMPROP | NO APPARENT VIOL |
| GOING STRAIGHT | w | PASS CARNAN | 10 | MAKING LEFT TURN | CONVERSE |  | DELL RANGE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| MAKING LEFT TURN | N | PAss CARNAN | 15 | MAKING RIGHT TURN | CONVERSE |  | DELL RANGE | NONE | NONE |
| MAKING RIGHT TURN | E | BICYCLE | UK | GOING STRAIGHT | CONVERSE |  | DELL RANGE | OTHER | OTHER |
| MAKING RIGHT TURN |  |  |  |  | CONVERSE |  | DELL RANGE | DRIVER INEXPERIENCE | NONE |
| GOING STRAIGHT | N | OTHER - SEE REPORT | 50 | MAKING LEFT TURN | DELL RANGE |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| BACKING | E | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | BACKING UNSAFELY | NO APPARENT VIOL |
| STOPPED IN TRAFFIC | E | PAss CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| STOPPED IN TRAFFIC | E | PASS CARNAN | 10 | GOING STRAIGHT | DELL RANGE |  | CONVERSE | NO APPARENT VIOL | NONE |
| OTHER | E | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | NO APPARENT VIOL | NO APPARENT VIOL |
| GOING STRAIGHT | w | PAss CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | E | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | NONE | NO APPARENT VIOL |
| CHANGING LANES |  | PICKUP TRUCKIUTILTY VAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | E | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | PSGR DISTRACTN | NO APPARENT VIOL |
| GOING STRAIGHT | E | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| STARTING IN TRAFFIC | E | PICKUP TRUCKIUTLITY VAN | 45 | GOING STRAIGHT | DELL RANGE |  | CONVERSE | NO APPARENT VIOL | NONE |
| GOING STRAIGHT | E | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | ALCOHOL INVOLV | NO APPARENT VIOL |
| GOING STRAIGHT | E | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | NONE | NO APPARENT VIOL |
| Slowing | s | PAss CARNAN |  | STARTING IN TRAFFIC | dell range |  | CONVERSE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | E | PAss CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | ALCOHOL INVOLV | NO APPARENT VIOL |
| GOING STRAIGHT | E | PASS CARNAN | 5 | SLOWING | DELL RANGE |  | CONVERSE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | E | PAsS CARNAN | 0 | STOPPED IN TRAFFIC | dell range |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | E | PAss CARNAN | UK | SLOWING | DELL RANGE |  | CONVERSE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | E | PICKUP TRUCKIUTLITY VAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | OTHER | NO APPARENT VIOL |
| GOING STRAIGHT | E | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | E | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| STARTING IN TRAFFIC | E | PAss CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| STARTING IN TRAFFIC | E | PICKUP TRUCKIUTLITY VAN | 10 | STARTING IN TRAFFIC | DELL RANGE |  | CONVERSE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | w | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| STARTING IN TRAFFIC | w | PICKUP TRUCKUUTLITY VAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| SLOWING | S | PICKUP TRUCKIUTILITY VAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | E | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | w | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |



| date | time | severity | serial | road_desc | vehicles | condition | lighting | weather | ramp | acctype | dir_1 | vehicle_1 | speed_1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8/30/2006 | 1148 | INJ | 200614391 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | W | PASS CAR/VAN | 40 |
| 8/30/2006 | 1237 | PDO | 200614423 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PICKUP TRUCK/UTILITY VAN | 20 |
| 9/5/2006 | 1724 | PDO | 200614961 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PICKUP TRUCK/UTILITY VAN | 10 |
| 9/15/2006 | 1242 | PDO | 200614966 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | W | MOTORCYCLE | 15 |
| 9/24/2006 | 1445 | PDO | 200615504 | INTERSECTION RELATED | 3 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PASS CAR/VAN | 35 |
| 9/26/2006 | 1540 | INJ | 200616092 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | W | PASS CAR/VAN | 20 |
| 10/29/2006 | 0913 | INJ | 200617965 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | W | PICKUP TRUCK/UTILITY VAN | 10 |
| 11/2/2006 | 1818 | INJ | 200618216 | INTERSECTION RELATED | 4 | DRY | DARK-LIGHTED | NONE | N | REAR-END | E | PICKUP TRUCK/UTILITY VAN | 40 |
| 11/15/2006 | 1800 | INJ | 200620473 | INTERSECTION RELATED | 2 | DRY | DARK-LIGHTED | NONE | N | REAR-END | W | PASS CAR/VAN | 0 |
| 12/2/2006 | 1201 | PDO | 200620197 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | W | PASS CAR/VAN | 5 |
| 12/2/2006 | 1227 | PDO | 200620201 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PICKUP TRUCK/UTILITY VAN | 45 |
| 1/17/2007 | 0655 | PDO | 200701229 | INTERSECTION RELATED | 2 | DRY | DAWN OR DUSK | NONE | N | REAR-END | E | PASS CAR/VAN | 20 |
| 1/23/2007 | 1622 | PDO | 200701290 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PASS CAR/VAN | 10 |
| 1/26/2007 | 1454 | PDO | 200701823 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | W | PASS CAR/VAN | 10 |
| 4/3/2007 | 1641 | INJ | 200705926 | INTERSECTION RELATED | 3 | DRY | DAYLIGHT | NONE | N | REAR-END | W | PASS CAR/VAN | 30 |
| 5/9/2007 | 1841 | PDO | 200707861 | INTERSECTION RELATED | 3 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PASS CAR/VAN | 40 |
| 6/1/2007 | 1608 | PDO | 200709460 | INTERSECTION RELATED | 2 | WET | DAYLIGHT | RAIN | N | REAR-END | E | PICKUP TRUCK/UTILITY VAN | 30 |
| 6/11/2007 | 1349 | PDO | 200709622 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PICKUP TRUCK/UTILITY VAN | 15 |
| 6/18/2007 | 1241 | PDO | 200710385 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | W | PASS CAR/VAN | 25 |
| 7/30/2007 | 1718 | PDO | 200712878 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PASS CAR/VAN | 0 |
| 7/30/2007 | 1724 | INJ | 200712881 | INTERSECTION RELATED | 5 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PICKUP TRUCK/UTILITY VAN | 0 |
| 8/30/2007 | 1812 | INJ | 200715277 | INTERSECTION RELATED | 3 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PASS CAR/VAN | 35 |
| 9/17/2007 | 1036 | PDO | 200715885 | INTERSECTION RELATED | 2 | WET | DAYLIGHT | NONE | N | REAR-END | E | PICKUP TRUCK/UTILITY VAN | 35 |
| 10/7/2007 | 1054 | PDO | 200716276 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | W | PASS CAR/VAN | 10 |
| 10/15/2007 | 1240 | INJ | 200717319 | INTERSECTION RELATED |  | DRY | DAYLIGHT | NONE | N | REAR-END | W | PICKUP TRUCK/UTILITY VAN | 30 |
| 11/9/2007 | 1142 | PDO | 200719325 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | W | PASS CAR/VAN | 30 |
| 11/24/2007 | 1617 | PDO | 200720445 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PICKUP TRUCK/UTILITY VAN | 0 |
| 11/27/2007 | 1705 | INJ | 200720750 | INTERSECTION RELATED | 2 | DRY | DARK-LIGHTED | NONE | N | REAR-END | E | PASS CAR/VAN | 35 |
| 12/1/2007 | 1531 | PDO | 200721031 | INTERSECTION RELATED | 2 | WET | DAYLIGHT | NONE | N | REAR-END | E | PASS CAR/VAN | 2 |
| 12/26/2007 | 1239 | PDO | 200723753 | INTERSECTION RELATED | , | SLUSHY | DAYLIGHT | NONE | N | REAR-END | W | PICKUP TRUCK/UTILITY VAN | 40 |
| 1/18/2002 | 1829 | PDO | 200200784 | INTERSECTION RELATED | 2 | DRY | DARK-LIGHTED | NONE | N | SIDESWIPE SAME DIRECTION | N | PASS CAR/VAN | 15 |
| 5/16/2003 | 1455 | PDO | 200307270 | INTERSECTION RELATED | 2 | MUDDY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | E | PASS CAR/VAN | 25 |
| 6/23/2004 | 2050 | PDO | 200409289 | INTERSECTION RELATED | 2 | DRY | DAWN OR DUSK | NONE | N | SIDESWIPE SAME DIRECTION | W | PASS CAR/VAN | 20 |
| 9/15/2005 | 1241 | INJ | 200514796 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | NW | PICKUP TRUCK/UTILITY VAN | 35 |
| 8/18/2005 | 1816 | PDO | 200512244 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | SIDESWIPE OPPOSITE DIRECTION | N | PASS CAR/VAN | 10 |
| 2/24/2005 | 1307 | PDO | 200503145 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PASS CAR/VAN | 30 |
| 1/4/2007 | 2153 | INJ | 200700183 | AT INTERSECTION | 2 | WET | DARK-LIGHTED | NONE | N | APPROACH TURN | E | PASS CAR/VAN | 40 |
| 3/10/2007 | 1703 | INJ | 200704573 | AT INTERSECTION | 3 | WET | DAYLIGHT | RAIN | N | APPROACH TURN | W | PASS CAR/VAN | 5 |
| 8/31/2006 | 0126 | INJ | 200614392 | INTERSECTION RELATED | 1 | DRY | DARK-LIGHTED | NONE | N | LIGHT/UTILITY POLE | W | PASS CAR/VAN | 40 |
| 7/25/2003 | 0441 | PDO | 200311092 | INTERSECTION RELATED | 1 | DRY | DARK-LIGHTED | NONE | N | CURB/RAISED MEDIAN | S | PASS CAR/VAN | 50 |


| veh_move_1 | dir_2 | vehicle_2 | speed_2 | veh_move_2 | loc_01 | link | loc_02 | violcode_1 | violcode_2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GOING STRAIGHT | W | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | E | PASS CARNAN | 5 | SLOWING | DELL RANGE |  | CONVERSE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | E | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | W | PASS CARNAN | 5 | GOING STRAIGHT | DELL RANGE |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | E | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | W | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | W | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | PHYSICAL DISABILITY | NO APPARENT VIOL |
| GOING STRAIGHT | E | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| STOPPED IN TRAFFIC | W | PICKUP TRUCK/UTILITY VAN | UK | GOING STRAIGHT | DELL RANGE |  | CONVERSE | NONE | NONE |
| STARTING IN TRAFFIC | W | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | E | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | E | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | ALCOHOL INVOLV | NO APPARENT VIOL |
| GOING STRAIGHT | E | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | W | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | PSGR DISTRACTN | NO APPARENT VIOL |
| GOING STRAIGHT | E | PICKUP TRUCK/UTILITY VAN | 20 | SLOWING | DELL RANGE |  | CONVERSE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | E | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | E | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | W | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| STOPPED IN TRAFFIC | E | PASS CARNAN | 30 | GOING STRAIGHT | DELL RANGE |  | CONVERSE | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| STOPPED IN TRAFFIC | E | PASS CARNAN | 15 | GOING STRAIGHT | DELL RANGE |  | CONVERSE | NO APPARENT VIOL | DRIVER INATTENTION |
| GOING STRAIGHT | E | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | PSGR DISTRACTN | NO APPARENT VIOL |
| GOING STRAIGHT | E | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | NONE | NO APPARENT VIOL |
| SLOWING | W | PASS CARNAN | 3 | SLOWING | DELL RANGE |  | CONVERSE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | W | PASS CAR/VAN | 5 | SLOWING | DELL RANGE |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | NONE | UNKNOWN |
| STOPPED IN TRAFFIC | E | PASS CAR/VAN | 35 | GOING STRAIGHT | DELL RANGE |  | CONVERSE | UNKNOWN | DRIVER INATTENTION |
| GOING STRAIGHT | E | PASS CAR/VAN | 5 | SLOWING | DELL RANGE |  | CONVERSE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | E | PASS CARNAN | 0 | STOPPED IN TRAFFIC | DELL RANGE |  | CONVERSE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | W | PASS CARNAN | 10 | BACKING | DELL RANGE |  | CONVERSE | NONE | NO APPARENT VIOL |
| MAKING LEFT TURN | N | PASS CARNAN | 15 | MAKING LEFT TURN | DELL RANGE |  | CONVERSE | TURNING IMPROP | NO APPARENT VIOL |
| GOING STRAIGHT | E | PASS CAR/VAN | 5 | STARTING IN TRAFFIC | DELL RANGE |  | CONVERSE | OTHER | NONE |
| CHANGING LANES | W | PASS CAR/VAN | 15 | GOING STRAIGHT | DELL RANGE |  | CONVERSE | IMPROP PASS | NO APPARENT VIOL |
| MAKING LEFT TURN | NW | PASS CAR/VAN | 15 | MAKING LEFT TURN | DELL RANGE |  | CONVERSE | TURNING IMPROP | NO APPARENT VIOL |
| MAKING RIGHT TURN | S | PASS CAR/VAN | 10 | CHANGING LANES | DELL RANGE |  | CONVERSE | TURNING IMPROP | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PICKUP TRUCK/UTILITY VAN | 40 | GOING STRAIGHT | DELL RANGE |  | CONVERSE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | W | PASS CARNAN | 10 | MAKING LEFT TURN | DELL RANGE |  | CONVERSE | NO APPARENT VIOL | NONE |
| MAKING LEFT TURN | E | PASS CAR/VAN | 35 | GOING STRAIGHT | DELL RANGE |  | CONVERSE | NONE | NO APPARENT VIOL |
| GOING STRAIGHT |  |  |  |  | DELL RANGE |  | CONVERSE | ALCOHOL INVOLV | NONE |
| MAKING LEFT TURN |  |  |  |  | DELL RANGE |  | CONVERSE | UNSAFE SPD FOR COND | NONE |



 O압 닉




 DRIVER INATTENTION
 DRIVR INATITNTION
 TRAF CNTRLDISREG TRAF CNTRL DISREG
TRAF CNTRLDISREG
 $\stackrel{\rightharpoonup}{2}{ }_{2}^{2}$
DRIVER INATTENTION
TRAF CNTRL DISREG
 0 DRIVER INATTENTION
UNKNOWN

 TRAF CNTRL DISREG
 2 2
3
2
2
3
3
3
3 $\qquad$ NONE
DRIVER INATTENTION
NO APPARENT VIOL号 O

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NO A PPARENT VIOL
UNSAFE SPD FOR COND
TTAF
 DRIVER INATTENTION NONE DRIVER IMATTENTION
DRVVER INATTENTION
 이룽 DRIVER INATTENTION
NONE TRAF CNTRL DISREG
DRIVERINATTENTION豦年





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 $\begin{array}{ll}1 \\ 1 & 1 \\ 0\end{array}$








 0 MAKING LEFT TURN
GOING STRAIGHT














| veh move 1 | dir＿2 | vehicle 2 |
| :---: | :---: | :---: |
| BACKING | N | PASS CARNAN |
| GOING STRAIGHT | s | Pass Carnan |
| Slowing | N | PASS CARNAN |
| GOING STRAIGHT | N | PICKUP TRUCKIUTILITY V |
| Slowing | s | PASS CARNAN |
| GOING STRAIGHT | s | PICKUP TRUCK／UTILITY VA |
| CHANGING LANES | N | PASS CARNAN |
| GOING STRAIGHT | w | PASS CARNAN |
| MAKING LEFT TURN | N | PASS CARNAN |
| GOING STRAIGHT | S | PICKUP TRUCKIUTLITY VAN |
| GOING STRAIGHT | S | PICKUP TRUCKUUTLITY VAN |
| GOING STRAIGHT | S | TRUCK GVW＞10K／BUSSES＞ 15 P |
| STARTING IN TRAFFIC | E | PASS CARNAN |
| GOING STRAIGHT | s | PASS CARNAN |
| GOING STRAIGHT | N | PASS CARNAN |
| MAKING LEFT TURN | s | PASS CARNAN |
| MAKING LEFT TURN | E | PASS CARNAN |
| GOING STRAIGHT | w | PICKUP TRUCKIUTLITY VAN |
| GOING STRAIGHT | s | PICKUP TRUCKIUTLLTY VAN |
| GOING STRAIGHT | s | PICKUP TRUCKIUTLITY VAN |
| GOING STRAIGHT | E | PASS CARNAN |
| GOING STRAIGHT | N | PICKUP TRUCK／UTLITY VAN |
| GOING STRAIGHT | s | PASS CARNAN |
| GOING STRAIGHT | N | PASS CARNAN |
| GOING STRAIGHT | E | UNKNOWN |
| GOING STRAIGHT | s | PASS CARNAN |
| GOING STRAIGHT | w | PASS CARNAN |
| GOING STRAIGHT | N | PICKUP TRUCKIUTLITY VAN |
| GOING STRAIGHT | E | PASS CARNAN |
| MAKING LEFT TURN | E | PASS CARNAN |
| GOING STRAIGHT | s | PICKUP TRUCKIUTLLTY VAN |
| GOING STRAIGHT | N | PASS CARNAN |
| GOING STRAIGHT | w | OTHER－SEE REPORT |
| GOING STRAIGHT | E | PASS CARNAN |
| GOING STRAIGHT | s | PASS CARNAN |
| STARTING IN TRAFFIC | N | PASS CARNAN |
| STARTING IN TRAFFIC | S | PICKUP TRUCKIUTILTY V |
| GOING STRAIGHT | E | PASS CARNAN |
| GOING STRAIGHT | E | PASS CARNAN |
| STARTING IN TRAFFIC | E | PASS CARNAN |
| STOPPED IN TRAFFIC | w | PICKUP TRUCKIUTLLTY VAN |
| STARTING IN TRAFFIC | s | PASS CARNAN |
| SLOWING | w | PICKUP TRUCKIUTLLTY VAN |
| GOING STRAIGHT | w | PASS CARNAN |
| MAKING RIGHT TURN | N | PICKUP TRUCKIUTLLTY VAN |
| MAKING RIGHT TURN | E | PICKUP TRUCKIUTILITY VAN |
| MAKING LEFT TURN | w | PICKUP TRUCKIUTLITY VAN |
| MAKING LEFT TURN | s | PASS CARNAN |
| MAKING LEFT TURN | w | Pass carnan |
| MAKING LEFT TURN | w | PAss carnan |
| MAKING LEFT TURN | w | PASS CARNAN |
| MAKING LEFT TURN | E | PASS CARNAN |
| MAKING LEFT TURN | S | PICKUP TRUCKIUTLLTY VAN |
| MAKING LEFT TURN | s | PASS CARNAN |
| GOING STRAIGHT | w | PASS CARNAN |
| MAKING LEFT TURN | NE | PASS CARNAN |

－

| date | time | severity | serial | road_desc | vehicles | condition | lighting | her | ramp | acctype | dir_1 | vehicle_1 | speed_1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12/18/2005 | 0142 | PDO | 200520431 | AT INTERSECTION | 2 | SNOWY | DARK-LIGHTED | SNOW/SLEET/HAIL | N | APPROACH TURN | W | PASS CAR/VAN | 30 |
| 11/3/2006 | 0811 | INJ | 200618223 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | NW | PASS CAR/VAN | 15 |
| 11/6/2006 | 1744 | PDO | 200618283 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | W | PICKUP TRUCK/UTILITY VAN | 20 |





| Contributing Factor |  |  | 3 | Veh 1 - Veh 2 - Veh 3 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No Apparent Contributing Factor: | 0 | 0 | 0 | North: | 15 | 16 | 0 |
| Asleep at the Wheel: | 0 | 0 | 0 | Northeast: | 1 | 1 | 0 |
| Illness: | 0 | 0 | 0 | East: | 17 | 7 | 0 |
| Distracted by Passenger: | 0 | 0 | 0 | Southeast: | 3 | 1 | 0 |
| Driver Inexperience: | 0 | 0 | 0 | South: | 8 | 14 | 0 |
| Driver Fatigue: | 0 | 0 | 0 | Southwest: | 0 | 1 | 0 |
| Driver Preoccupied: | 0 | 0 | 0 | West: | 10 | 12 | 0 |
| Driver Unfamilar with Area: | 0 | 0 | 0 | Northwest: | 1 | 1 | 0 |
| Driver Emotionally Upset: | 0 | 0 | 0 | Unknown: | 0 | 0 | 8 |
| Evading Law Enforcement Officier: | 0 | 0 | 0 | Total: | 55 | 53 | 8 |
| Physical Disability: | 0 | 0 | 0 | Total. | 55 | 53 | 8 |
| Unknown: | 55 | 53 | 8 |  |  |  |  |
| Total: | 55 | 53 | 8 |  |  |  |  |
| Condition of Driver | 1 | 2 |  |  |  |  |  |
| No Impairment Suspected: | 0 | 0 | 0 |  |  |  |  |
| Alcohol Involved: | 0 | 0 | 0 |  |  |  |  |
| RX Drugs or Medication Involved: | 0 | 0 | 0 |  |  |  |  |
| Illegal Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Alcohol and Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Driver/Pedestrian not Observed: | 0 | 0 | 0 |  |  |  |  |
| Unknown: | 55 | 53 | 8 |  |  |  |  |
| Total: | 55 | 53 | 8 |  |  |  |  |


| - Contributing Factor_- Veh 1 _ Veh 2 _ Veh 3 - Direction_ Veh 1 - Veh 2 - Veh 3 - |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No Apparent Contributing Factor: | 0 | 0 | 0 | North: | 15 | 16 | 0 |
| Asleep at the Wheel: | 0 | 0 | 0 | Northeast: | 1 | 1 | 0 |
| Illness: | 0 | 0 | 0 | East: | 17 | 7 | 0 |
| Distracted by Passenger: | 0 | 0 | 0 | Southeast: | 3 | 1 | 0 |
| Driver Inexperience: | 0 | 0 | 0 | South: | 8 | 14 | 0 |
| Driver Fatigue: | 0 | 0 | 0 | Southwest: | 0 | 1 | 0 |
| Driver Preoccupied: | 0 | 0 | 0 | West: | 10 | 12 | 0 |
| Driver Unfamilar with Area: | 0 | 0 | 0 | Northwest: | 1 | 1 | 0 |
| Driver Emotionally Upset: | 0 | 0 | 0 | Unknown: | 0 | 0 | 8 |
| Evading Law Enforcement Officier: | 0 | 0 | 0 | Total: | 55 | 53 | 8 |
| Physical Disability: | 0 | 0 | 0 | Total: | 55 | 53 | 8 |
| Unknown: | 55 | 53 | 8 |  |  |  |  |
| Total: | 55 | 53 | 8 |  |  |  |  |
| dition of Driver__ Veh 1 __ Veh $2 \ldots$ Veh 3 |  |  |  |  |  |  |  |
| No Impairment Suspected: | 0 | 0 | 0 |  |  |  |  |
| Alcohol Involved: | 0 | 0 | 0 |  |  |  |  |
| RX Drugs or Medication Involved: | 0 | 0 | 0 |  |  |  |  |
| Illegal Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Alcohol and Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Driver/Pedestrian not Observed: | 0 | 0 | 0 |  |  |  |  |
| Unknown: | 55 | 53 | 8 |  |  |  |  |
| Total: | 55 | 53 | 8 |  |  |  |  |







| Contributing Factor |  |  | 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No Apparent Contributing Factor: | 0 | 0 | 0 | North: | 8 | 4 | 0 |
| Asleep at the Wheel: | 0 | 0 | 0 | Northeast: | 0 | 0 | 0 |
| Illness: | 0 | 0 | 0 | East: | 3 | 6 | 0 |
| Distracted by Passenger: | 0 | 0 | 0 | Southeast: | 0 | 0 | 0 |
| Driver Inexperience: | 0 | 0 | 0 | South: | 2 | 1 | 0 |
| Driver Fatigue: | 0 | 0 | 0 | Southwest: | 0 | 0 | 0 |
| Driver Preoccupied: | 0 | 0 | 0 | West: | 2 | 4 | 0 |
| Driver Unfamilar with Area: | 0 | 0 | 0 | Northwest: | 0 | 0 | 0 |
| Driver Emotionally Upset: | 0 | 0 | 0 | Unknown: | 0 | 0 | 0 |
| Evading Law Enforcement Officier: | 0 | 0 | 0 | Total: | 15 | 15 | 0 |
| Physical Disability: | 0 | 0 | 0 | Total. | 15 | 15 | 0 |
| Unknown: | 15 | 15 | 0 |  |  |  |  |
| Total: | 15 | 15 | 0 |  |  |  |  |
| - Condition of Driver | 1 | 2 |  |  |  |  |  |
| No Impairment Suspected: | 0 | 0 | 0 |  |  |  |  |
| Alcohol Involved: | 0 | 0 | 0 |  |  |  |  |
| RX Drugs or Medication Involved: | 0 | 0 | 0 |  |  |  |  |
| Illegal Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Alcohol and Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Driver/Pedestrian not Observed: | 0 | 0 | 0 |  |  |  |  |
| Unknown: | 15 | 15 | 0 |  |  |  |  |
| Total: | 15 | 15 | 0 |  |  |  |  |


| Contributing Factor | Veh 1 _ Veh 2 _ Veh 3 - Direction |  |  |  | Veh 1 - Veh 2 - Veh 3 - |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No Apparent Contributing Factor: | 0 | 0 | 0 | North: | 8 | 4 | 0 |
| Asleep at the Wheel: | 0 | 0 | 0 | Northeast: | 0 | 0 | 0 |
| Illness: | 0 | 0 | 0 | East: | 3 | 6 | 0 |
| Distracted by Passenger: | 0 | 0 | 0 | Southeast: | 0 | 0 | 0 |
| Driver Inexperience: | 0 | 0 | 0 | South: | 2 | 1 | 0 |
| Driver Fatigue: | 0 | 0 | 0 | Southwest: | 0 | 0 | 0 |
| Driver Preoccupied: | 0 | 0 | 0 | West: | 2 | 4 | 0 |
| Driver Unfamilar with Area: | 0 | 0 | 0 | Northwest: | 0 | 0 | 0 |
| Driver Emotionally Upset: | 0 | 0 | 0 | Unknown: | 0 | 0 | 0 |
| Evading Law Enforcement Officier: | 0 | 0 | 0 | Total: | 15 | 15 | 0 |
| Physical Disability: | 0 | 0 | 0 | Total: | 15 | 15 | 0 |
| Unknown: | 15 | 15 | 0 |  |  |  |  |
| Total: | 15 | 15 | 0 |  |  |  |  |
| Condition of Driver | 1 | 2 | 3 |  |  |  |  |
| No Impairment Suspected: | 0 | 0 | 0 |  |  |  |  |
| Alcohol Involved: | 0 | 0 | 0 |  |  |  |  |
| RX Drugs or Medication Involved: | 0 | 0 | 0 |  |  |  |  |
| Illegal Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Alcohol and Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Driver/Pedestrian not Observed: | 0 | 0 | 0 |  |  |  |  |
| Unknown: | 15 | 15 | 0 |  |  |  |  |
| Total: | 15 | 15 | 0 |  |  |  |  |


| Location: Accident History for FOUR MILE and RIDGE |  |  |  | From:01/01/2002 To:12/31/2007 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - Vehicle Type | Vehicle Movemen |  |  |  |  |  |  |
| Passenger Car/Van: | 12 | 7 | 0 | Going Straight: | 11 | 14 | 0 |
| Passenger Car/Van w/Trl: | 0 | 0 | 0 | Slowing: | 1 | 0 | 0 |
| Pickup Truck/Utility Van: | 3 | 7 | 0 | Stopped in Traffic: | 0 | 0 | 0 |
| Pickup Truck/Utility Van w/Trl: | 0 | 0 | 0 | Making Right Turn: | 0 | 0 | 0 |
| Truck 10k lbs or Less: | 0 | 0 | 0 | Making Left Turn: | 0 | 0 | 0 |
| Trucks > 10k lbs/Bus > 15 People: | 0 | 0 | 0 | Making U-Turn: | 0 | 0 | 0 |
| School Bus < 15 People: | 0 | 0 | 0 | Passing: | 0 | 0 | 0 |
| Non School Bus < 15 People: | 0 | 0 | 0 | Backing: | 0 | 0 | 0 |
| Motorhome: | 0 | 0 | 0 | Enter/Leave Parked Position: | 0 | 0 | 0 |
| Motorcycle: | 0 | 0 | 0 | Starting in Traffic: | 3 | 1 | 0 |
| Bicycle: | 0 | 0 | 0 | Parked: | 0 | 0 | 0 |
| Motorized Bicycle: | 0 | 0 | 0 | Changing Lanes: | 0 | 0 | 0 |
| Farm Equipment: | 0 | 0 | 0 | Avoiding Object in Road: | 0 | 0 | 0 |
| Hit and Run - Unknown: | 0 | 0 | 0 | Weaving: | 0 | 0 | 0 |
| Other: | 0 | 1 | 0 | Other: | 0 | 0 | 0 |
| Unknown: | 0 | 0 | 0 | Unknown: | 0 | 0 | 0 |
| Total: | 15 | 15 | 0 | Total: | 15 | 15 | 0 |



| veh_move_1 | dir_2 | vehicle_2 | speed_2 | veh_move_2 | loc_01 | link | loc_02 | violcode_1 | violcode_2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| STARTING IN TRAFFIC | E | PICKUP TRUCK/UTILITY VAN | 45 | GOING STRAIGHT | FOUR MILE |  | RIDGE RD | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | E | PICKUP TRUCK/UTILITY VAN | 50 | GOING STRAIGHT | FOUR MILE |  | RIDGE RD | ALCOHOL INVOLV | NO APPARENT VIOL |
| GOING STRAIGHT | N | PICKUP TRUCK/UTILITY VAN | 10 | GOING STRAIGHT | FOUR MILE |  | RIDGE RD | NO APPARENT VIOL | NONE |
| GOING STRAIGHT | W | PASS CAR/VAN | 50 | GOING STRAIGHT | FOUR MILE |  | RIDGE RD | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | W | PASS CAR/VAN | 50 | GOING STRAIGHT | FOUR MILE |  | RIDGE RD | NONE | NO APPARENT VIOL |
| SLOWING | S | PASS CAR/VAN | 10 | STARTING IN TRAFFIC | FOUR MILE |  | RIDGE RD | NO APPARENT VIOL | ALCOHOL INVOLV |
| GOING STRAIGHT | N | PASS CAR/VAN | 40 | GOING STRAIGHT | FOUR MILE |  | RIDGE RD | NO APPARENT VIOL | DRIVER INATTENTION |
| GOING STRAIGHT | N | PICKUP TRUCK/UTILITY VAN | 10 | GOING STRAIGHT | FOUR MILE |  | RIDGE RD | NO APPARENT VIOL | ILLNESS |
| STARTING IN TRAFFIC | W | PICKUP TRUCK/UTILITY VAN | 50 | GOING STRAIGHT | FOUR MILE |  | RIDGE RD | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | N | PICKUP TRUCK/UTILITY VAN | 50 | GOING STRAIGHT | FOUR MILE |  | RIDGE RD | ALCOHOL INVOLV | TRAF CNTRL DISREG |
| GOING STRAIGHT | E | PASS CAR/VAN | 50 | GOING STRAIGHT | FOUR MILE |  | RIDGE RD | TRAF CNTRL DISREG | NO APPARENT VIOL |
| GOING STRAIGHT | E | OTHER - SEE REPORT | 45 | GOING STRAIGHT | FOUR MILE |  | RIDGE RD | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | E | PICKUP TRUCK/UTILITY VAN | 50 | GOING STRAIGHT | FOUR MILE |  | RIDGE RD | PSGR DISTRACTN | NO APPARENT VIOL |
| GOING STRAIGHT | E | PASS CAR/VAN | 50 | GOING STRAIGHT | FOUR MILE |  | RIDGE RD | DRIVER INATTENTION | NO APPARENT VIOL |
| STARTING IN TRAFFIC | W | PASS CAR/VAN | 50 | GOING STRAIGHT | FOUR MILE |  | RIDGE RD | TRAF CNTRL DISREG | NO APPARENT VIOL |



| Location: Accident History for CONVERSE and LINCOLNWAY |  |  |  | From:01/01/2002 To:12/31/2007 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - Vehicle Type | Veh 1 __ Veh 2 __ Veh 3 _ Vehicle Movement |  |  |  | 1 |  | 3 |
| Passenger Car/Van: | 62 | 57 | 0 | Going Straight: | 36 | 52 | 0 |
| Passenger Car/Van w/Trl: | 0 | 0 | 0 | Slowing: | 3 | 1 | 0 |
| Pickup Truck/Utility Van: | 10 | 14 | 0 | Stopped in Traffic: | 1 | 13 | 0 |
| Pickup Truck/Utility Van w/Trl: | 0 | 0 | 0 | Making Right Turn: | 6 | 2 | 0 |
| Truck 10k lbs or Less: | 1 | 0 | 0 | Making Left Turn: | 24 | 2 | 0 |
| Trucks > 10k lbs/Bus > 15 People: | 1 | 0 | 0 | Making U-Turn: | 0 | 0 | 0 |
| School Bus < 15 People: | 0 | 0 | 0 | Passing: | 1 | 0 | 0 |
| Non School Bus < 15 People: | 0 | 0 | 0 | Backing: | 0 | 0 | 0 |
| Motorhome: | 0 | 0 | 0 | Enter/Leave Parked Position: | 0 | 0 | 0 |
| Motorcycle: | 1 | 0 | 0 | Starting in Traffic: | 2 | 3 | 0 |
| Bicycle: | 0 | 2 | 0 | Parked: | 0 | 0 | 0 |
| Motorized Bicycle: | 0 | 0 | 0 | Changing Lanes: | 1 | 0 | 0 |
| Farm Equipment: | 0 | 0 | 0 | Avoiding Object in Road: | 0 | 0 | 0 |
| Hit and Run - Unknown: | 0 | 0 | 0 | Weaving: | 0 | 0 | 0 |
| Other: | 0 | 0 | 0 | Other: | 1 | 0 | 0 |
| Unknown: | 0 | 0 | 7 | Unknown: | 0 | 0 | 7 |
| Total: | 75 | 73 | 7 | Total: | 75 | 73 | 7 |



| date | time | severity | serial | road desc | vehicles | condition | lighting | weather | ramp | acctype | dir_1 | vehicle_1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11/9/2002 | 1541 | PDO | 200218064 | INTERSECTION RELATED |  | DRY | DAYLIGHT | NONE | N | REAR-END | N | PICKUP TRUCK/UTILITY VAN |
| 11/14/2002 | 1533 | PDO | 200218354 | INTERSECTION RELATED | 3 | DRY | DAYLIGHT | NONE | N | REAR-END | S | PICKUP TRUCK/UTILITY VAN |
| 10/1/2003 | 1741 | PDO | 200314964 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | S | PASS CARIVAN |
| 3/7/2005 | 1606 | PDO | 200503819 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | S | PASS CARIVAN |
| 1/5/2007 | 1344 | PDO | 200700178 | INTERSECTION RELATED | 2 | WET | DAYLIGHT | NONE | N | REAR-END | S | PICKUP TRUCK/UTILITY VAN |
| 12/5/2007 | 1636 | INJ | 200721258 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | S | PASS CARIVAN |
| 1/13/2006 | 2330 | PDO | 200601667 | INTERSECTION RELATED | 2 | DRY | DARK-LIGHTED | NONE | N | SIDESWIPE SAME DIRECTION | s | PASS CAR/VAN |
| 7/11/2002 | 1856 | INJ | 200210612 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | BICYCLE | S | PASS CARIVAN |
| 12/29/2002 | 0001 | PDO | 200220979 | INTERSECTION RELATED | 1 | DRY | DARK-LIGHTED | NONE | N | WALL/BUILDING | E | PICKUP TRUCK/UTILITY VAN |
| 7/8/2004 | 1232 | INJ | 200410573 | AT INTERSECTION | 1 | DRY | DAYLIGHT | NONE | N | OTHER NON-COLLISION | w | MOTORCYCLE |
| 2/10/2002 | 1938 | PDO | 200202008 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | N | PASS CARIVAN |
| 9/8/2002 | 1846 | PDO | 200214062 | AT INTERSECTION | 2 | WET | DAYLIGHT | SNOW/SLEET/HAIL | N | BROADSIDE | E | PASS CARNAN |
| 9/13/2002 | 2113 | INJ | 200214463 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PASS CARIVAN |
| 12/11/2002 | 0730 | PDO | 200220037 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PASS CARIVAN |
| 219/2003 | 1814 | PDO | 200301973 | AT INTERSECTION | 2 | WET | DAYLIGHT | NONE | N | BROADSIDE | w | PASS CARNAN |
| 5/15/2003 | 1730 | PDO | 200307110 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PASS CAR/VAN |
| 6/25/2003 | 1842 | INJ | 200309147 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | S | PASS CAR/VAN |
| 9/28/2003 | 1821 | PDO | 200314674 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PASS CARVAN |
| 11/7/2003 | 1453 | INJ | 200317575 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PASS CARVAN |
| 11/21/2003 | 2214 | PDO | 200318584 | AT INTERSECTION | 2 | SNOWY | DARK-LIGHTED | SNOW/SLEET/HAIL | N | BROADSIDE | E | PASS CARIVAN |
| 3/31/2004 | 0740 | PDO | 200405115 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PASS CARIVAN |
| 4/29/2004 | 1255 | PDO | 200406495 | AT INTERSECTION | , | WET | DAYLIGHT | RAIN | N | BROADSIDE | W | PASS CAR/VAN |
| 6/15/2004 | 1035 | PDO | 200408836 | AT INTERSECTION | 3 | DRY | DAYLIGHT | NONE | N | BROADSIDE | , | PASS CAR/VAN |
| 2/9/2005 | 1218 | PDO | 200502438 | AT INTERSECTION |  | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PASS CAR/VAN |
| 5/31/2005 | 0806 | INJ | 200508033 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PASS CARIVAN |
| 6/15/2005 | 0641 | INJ | 200508813 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | NE | PICKUP TRUCK/UTILITY VAN |
| 8/6/2005 | 1744 | PDO | 200511588 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PASS CARIVAN |
| 9/1/2005 | 1305 | PDO | 200513385 | AT INTERSECTION |  | DRY | DAYLIGHT | NONE | N | BROADSIDE | S | PASS CAR/VAN |
| 10/6/2005 | 1505 | PDO | 200515170 | AT INTERSECTION |  | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | TRUCK GVW <= 10K LBS |
| 1/12/2006 | 1013 | INJ | 200600272 | AT INTERSECTION |  | WET | DAYLIGHT | SNOW/SLEET/HAIL | N | BROADSIDE | W | PASS CARNAN |
| 6/2/2006 | 2123 | INJ | 200608284 | AT INTERSECTION |  | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | S | PASS CAR/VAN |
| 6/23/2006 | 1752 | INJ | 200610133 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PASS CARIVAN |
| 12/21/2006 | 1137 | PDO | 200621821 | AT INTERSECTION |  | ICY | DAYLIGHT | NONE | N | BROADSIDE | E | TRUCK GVW > 10K/BUSSES > 15 PEOPLE |
| 2/18/2007 | 2020 | INJ | 200703303 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | N | PASS CARIVAN |
| 3/30/2007 | 0723 | PDO | 200705838 | AT INTERSECTION | 2 | SLUSHY | DAYLIGHT | SNOW/SLEET/HAIL | N | BROADSIDE | E | PICKUP TRUCK/UTILITY VAN |
| 6/13/2007 | 0625 | INJ | 200710125 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PASS CARIVAN |
| 6/23/2007 | 1723 | PDO | 200710756 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | S | PASS CARIVAN |
| 8/13/2007 | 1303 | PDO | 200713578 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PICKUP TRUCK/UTILITY VAN |
| 12/12/2007 | 1532 | PDO | 200721253 | AT INTERSECTION |  | ICY | DAYLIGHT | NONE | N | BROADSIDE | S | PASS CARIVAN |
| 8/11/2004 | 2255 | PDO | 200412154 | INTERSECTION RELATED |  | DRY | DARK-LIGHTED | NONE | N | REAR-END | W | PASS CARIVAN |
| 7/6/2005 | 1135 | PDO | 200510013 | INTERSECTION RELATED |  | DRY | DAYLIGHT | NONE | N | REAR-END | w | PASS CAR/VAN |
| 12/23/2005 | 1638 | PDO | 200521142 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | W | PASS CARIVAN |
| 2/13/2006 | 1723 | PDO | 200602385 | INTERSECTION RELATED |  | DRY | DAYLIGHT | SNOW/SLEET/HAIL | N | REAR-END | E | PASS CARIVAN |
| 12/11/2006 | 1714 | PDO | 200620431 | INTERSECTION RELATED |  | DRY | DARK-UNLIGHTED | NONE | N | REAR-END | E | PASS CAR/VAN |
| 2/2/2007 | 2040 | INJ | 200702382 | INTERSECTION RELATED |  | DRY | DARK-LIGHTED | NONE | N | REAR-END | E | PICKUP TRUCK/UTILITY VAN |
| 8/25/2007 | 0049 | PDO | 200714626 | INTERSECTION RELATED |  | DRY | DARK-LIGHTED | NONE | N | REAR-END | E | PASS CARIVAN |
| 11/23/2007 | 1757 | PDO | 200720296 | INTERSECTION RELATED | 2 | ICY | DARK-LIGHTED | NONE | N | REAR-END | E | PASS CAR/VAN |
| 9/26/2002 | 1537 | PDO | 200215208 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | W | PASS CARNAN |
| 10/9/2002 | 1705 | PDO | 200215968 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | E | PASS CARIVAN |
| 12/11/2002 | 1720 | PDO | 200220229 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | S | PASS CAR/VAN |
| 1/29/2003 | 1153 | PDO | 200301327 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | W | PASS CAR/VAN |
| 11/23/2005 | 1454 | PDO | 200518380 | AT INTERSECTION |  | DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | W | PASS CARIVAN |
| 11/1/2007 | 1728 | PDO | 200719267 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | SIDESWIPE OPPOSITE DIRECTION | S | PASS CARNAN |
| 1/12/2002 | 1742 | PDO | 200200515 | AT INTERSECTION |  | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | W | PASS CARIVAN |
| 3/30/2002 | 1014 | INJ | 200205055 | AT INTERSECTION |  | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PASS CARIVAN |
| 7/26/2002 | 2111 | PDO | 200211459 | AT INTERSECTION |  | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | N | PASS CARIVAN |


| speed_1 | veh_move_1 | dir_2 | vehicle_2 | speed_2 | veh_move_2 | loc_01 | link | loc_02 | violcode_1 | violcode_2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | E.LINCOLNW | NONE | NO APPARENT VIOL |
| 25 | GOING STRAIGHT | S | PASS CAR/VAN | 5 | SLOWING | CONVERSE |  | E.LINCOLNW | NONE | NO APPARENT VIOL |
| 5 | GOING STRAIGHT | S | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | E.LINCOLNW | DRIVER INATTENTION | NO APPARENT VIOL |
| 15 | GOING STRAIGHT | S | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | E.LINCOLNW | DRIVER INATTENTION | NO APPARENT VIOL |
| 20 | SLOWING | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | E.LINCOLNW | NO APPARENT VIOL | ALCOHOL INVOLV |
| 20 | GOING STRAIGHT | S | PASS CAR/VAN | 25 | GOING STRAIGHT | CONVERSE |  | E.LINCOLNW | NONE | NO APPARENT VIOL |
| UK | PASSING | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | E.LINCOLNW | OTHER | NO APPARENT VIOL |
| 5 | MAKING RIGHT TURN | E | BICYCLE | 10 | GOING STRAIGHT | CONVERSE |  | E.LINCOLNW | DRIVER INATTENTION | DRIVER INATTENTION |
| 25 | OTHER |  |  |  |  | CONVERSE |  | E.LINCOLNW | ALCOHOL INVOLV | NONE |
| 30 | GOING STRAIGHT |  |  |  |  | E.LINCOLNW |  | CONVERSE | NONE | NONE |
| 30 | GOING STRAIGHT | W | PASS CAR/VAN | 30 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | N | PASS CAR/VAN | 5 | STARTING IN TRAFFIC | E.LINCOLNW |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| 5 | MAKING LEFT TURN | N | PASS CAR/VAN | 10 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | NONE | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | E | PASS CAR/VAN | 30 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | DRIVER INATTENTION | TRAF CNTRL DISREG |
| 40 | GOING STRAIGHT | S | PASS CAR/VAN | 30 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| 5 | SLOWING | N | PASS CAR/VAN | 15 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | NONE | NO APPARENT VIOL |
| 10 | MAKING LEFT TURN | E | PASS CAR/VAN | 25 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | NONE | NO APPARENT VIOL |
| 15 | STARTING IN TRAFFIC | S | PICKUP TRUCK/UTILITY VAN | 10 | STARTING IN TRAFFIC | E.LINCOLNW |  | CONVERSE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 5 | MAKING LEFT TURN | N | PASS CAR/VAN | 25 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | NONE | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | S | PASS CAR/VAN | 20 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | S | PASS CAR/VAN | 35 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| UK | GOING STRAIGHT | N | PASS CAR/VAN | 25 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 15 | GOING STRAIGHT | N | PASS CAR/VAN | 25 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | N | PASS CAR/VAN | 30 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | S | PASS CAR/VAN | 25 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | S | PASS CAR/VAN | 30 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 45 | GOING STRAIGHT | N | PASS CAR/VAN | 10 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 30 | MAKING RIGHT TURN | E | PASS CAR/VAN | 30 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | NONE | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | N | PASS CAR/VAN | 30 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | N | PICKUP TRUCK/UTILITY VAN | 30 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | E | PICKUP TRUCK/UTILITY VAN | 30 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 60 | GOING STRAIGHT | S | PASS CAR/VAN | UK | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | ALCOHOL INVOLV | NO APPARENT VIOL |
| 25 | GOING STRAIGHT | N | PASS CAR/VAN | 10 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | E | PASS CAR/VAN | 30 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | N | PASS CAR/VAN | 10 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | N | PASS CAR/VAN | 20 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| UK | GOING STRAIGHT | W | PASS CAR/VAN | 10 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | S | PASS CAR/VAN | 5 | MAKING LEFT TURN | E.LINCOLNW |  | CONVERSE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | E | PASS CAR/VAN | 5 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | TRAF CNTRL DISREG | TRAF CNTRL DISREG |
| 30 | GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | E.LINCOLNW |  | CONVERSE | ALCOHOL INVOLV | NO APPARENT VIOL |
| UK | GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | E.LINCOLNW |  | CONVERSE | OTHER | NO APPARENT VIOL |
| 0 | STOPPED IN TRAFFIC | W | PICKUP TRUCK/UTILITY VAN | 5 | STARTING IN TRAFFIC | E.LINCOLNW |  | CONVERSE | NONE | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | E | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | E.LINCOLNW |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| 25 | GOING STRAIGHT | E | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | E.LINCOLNW |  | CONVERSE | NONE | NO APPARENT VIOL |
| UK | GOING STRAIGHT | E | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | E.LINCOLNW |  | CONVERSE | ALCOHOL INVOLV | NO APPARENT VIOL |
| 25 | SLOWING | E | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | E.LINCOLNW |  | CONVERSE | ALCOHOL INVOLV | NO APPARENT VIOL |
| 20 | STARTING IN TRAFFIC | E | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | E.LINCOLNW |  | CONVERSE | DRIVER INATTENTION | UNKNOWN |
| 25 | CHANGING LANES | W | PASS CAR/VAN | 30 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| 15 | MAKING LEFT TURN | W | PASS CAR/VAN | 10 | MAKING RIGHT TURN | E.LINCOLNW |  | CONVERSE | TURNING IMPROP | NO APPARENT VIOL |
| 10 | MAKING RIGHT TURN | W | PASS CAR/VAN | 30 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | NONE | NO APPARENT VIOL |
| 20 | MAKING RIGHT TURN | SW | PICKUP TRUCK/UTILITY VAN | 30 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | TURNING IMPROP | NO APPARENT VIOL |
| 10 | MAKING RIGHT TURN | N | PASS CAR/VAN | 20 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | DRIVER INATTENTION | NO APPARENT VIOL |
| 20 | MAKING RIGHT TURN | E | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | E.LINCOLNW |  | CONVERSE | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 20 | MAKING LEFT TURN | E | PASS CAR/VAN | 25 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | NONE | NO APPARENT VIOL |
| 15 | MAKING LEFT TURN | E | PASS CAR/VAN | 30 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | TURNING IMPROP | NO APPARENT VIOL |
| 10 | MAKING LEFT TURN | S | PICKUP TRUCK/UTILITY VAN | 9 | GOING STRAIGHT | E.LINCOLNW |  | CONVERSE | NONE | NO APPARENT VIOL |


| date | time | severity | serial | road_desc | vehicles | condition | lighting | weather | ramp | acctype | dir_1 | vehicle_1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8/1/2002 | 1300 | PDO | 200211814 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | E | PASS CAR/VAN |
| 8/24/2002 | 1448 | INJ | 200213217 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | S | PASS CAR/VAN |
| 10/8/2002 | 1659 | PDO | 200215964 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | NE | PASS CAR/VAN |
| 11/8/2003 | 1101 | PDO | 200317578 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 2/12/2004 | 1303 | PDO | 200402447 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | E | PASS CAR/VAN |
| 5/11/2004 | 0759 | PDO | 200407108 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | S | PASS CAR/VAN |
| 6/16/2004 | 1111 | INJ | 200408840 | AT INTERSECTION | 2 | WET | DAYLIGHT | RAIN | N | APPROACH TURN | S | PASS CAR/VAN |
| 7/1/2004 | 1646 | PDO | 200409901 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | N | PASS CAR/VAN |
| 10/4/2004 | 1700 | PDO | 200415189 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | S | PASS CAR/VAN |
| 3/11/2005 | 1255 | PDO | 200504112 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | S | PASS CAR/VAN |
| 7/14/2005 | 1337 | INJ | 200510620 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | SE | PASS CAR/VAN |
| 9/11/2005 | 1059 | PDO | 200514450 | AT INTERSECTION | 3 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | E | PASS CAR/VAN |
| 2/11/2006 | 2027 | INJ | 200602799 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | S | PASS CAR/VAN |
| 6/22/2006 | 2135 | INJ | 200610128 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | E | PASS CAR/VAN |
| 1/16/2007 | 1410 | PDO | 200700578 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | S | PICKUP TRUCK/UTILITY VAN |
| 6/30/2007 | 1317 | INJ | 200711043 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 11/8/2007 | 1904 | INJ | 200719413 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | E | PASS CAR/VAN |
| 1/25/2006 | 1032 | INJ | 200601505 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | BICYCLE | S | PICKUP TRUCK/UTILITY VAN |
| 12/11/2007 | 1430 | PDO | 200722071 | AT INTERSECTION |  | ICY | DAYLIGHT | SNOW/SLEET/HAIL | N | UNKNOWN | W | PASS CAR/VAN |







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 200707920 A A N NTERSECTION 200713528 AT INTERSECTION

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| :--- |
| NO APPARENT VIOL |
| DRIVER INATTENTION |
| NO APPARENT VIOL |
| NO APPARENT VIOL |
| PHYSICAL DISABILITY |





 NO APPARENT VIOL



| speed_1 | veh_move_1 | dir_2 | vehicle_2 | speed_2 | veh_move_2 | loc_01 | link | loc_02 | violcode_1 | violcode_2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 | GOING STRAIGHT | S | PASS CAR/VAN | 20 | GOING STRAIGHT | CENTRAL AV |  | 16TH ST | DRIVER INATTENTION | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | E | PASS CAR/VAN | 20 | GOING STRAIGHT | CENTRAL AV |  | 16 TH ST | DRIVER INATTENTION | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | S | PASS CAR/VAN | 20 | GOING STRAIGHT | CENTRAL AV |  | 16 TH ST | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| 0 | STOPPED IN TRAFFIC | S | PASS CAR/VAN | UK | GOING STRAIGHT | CENTRAL AV |  | 16 TH ST | NONE | NONE |
| 5 | SLOWING | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | 16 TH ST | NO APPARENT VIOL | UNSAFE SPD FOR COND |
| 20 | GOING STRAIGHT | S | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | 16 TH ST | NONE | NO APPARENT VIOL |
| UK | GOING STRAIGHT | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | 16 TH ST | NONE | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | 16 TH ST | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | E | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | 16 TH ST | DRIVER INATTENTION | NO APPARENT VIOL |
| UK | MAKING RIGHT TURN | S | SCHOOL BUS < 15 PEOPLE | 5 | MAKING RIGHT TURN | CENTRAL AV |  | 16 TH ST | NONE | NO APPARENT VIOL |
| 20 | CHANGING LANES | S | PASS CARNAN | UK | GOING STRAIGHT | CENTRAL AV |  | 16 TH ST | DRIVER INATTENTION | NO APPARENT VIOL |
| 5 | ENTERING/LEAVING PARKED POSITION | S | PASS CAR/VAN | 10 | SLOWING | CENTRAL AV |  | 16TH ST | NONE | NO APPARENT VIOL |
| 10 | MAKING LEFT TURN | E | PASS CAR/VAN | 20 | GOING STRAIGHT | CENTRAL AV |  | 16TH ST | NONE | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | 10 | MAKING LEFT TURN | CENTRAL AV |  | 16 TH ST | NO APPARENT VIOL | DRIVER INATTENTION |
| 20 | GOING STRAIGHT | W | PASS CAR/VAN | 5 | MAKING LEFT TURN | CENTRAL AV |  | 16 TH ST | DRIVER INEXPERIENCE | NO APPARENT VIOL |
| 15 | MAKING LEFT TURN | E | PASS CAR/VAN | 20 | GOING STRAIGHT | CENTRAL AV |  | 16 TH ST | DRIVER INATTENTION | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | SW | PASS CAR/VAN | 5 | MAKING LEFT TURN | CENTRAL AV |  | 16TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 5 | MAKING LEFT TURN | E | TRUCK GVW <= 10K LBS | 15 | GOING STRAIGHT | CENTRAL AV |  | 16 TH ST | NONE | NO APPARENT VIOL |
| UK | GOING STRAIGHT | W | PASS CAR/VAN | 5 | MAKING LEFT TURN | CENTRAL AV |  | 16 TH ST | UNKNOWN | FELL ASLEEP |
| 15 | MAKING LEFT TURN | E | PASS CAR/VAN | 15 | GOING STRAIGHT | CENTRAL AV |  | 16 TH ST | ALCOHOL INVOLV | NO APPARENT VIOL |
| 20 | MAKING LEFT TURN | W | BICYCLE | UK | GOING STRAIGHT | CENTRAL AV |  | 16 TH ST | OTHER | OTHER |
| 30 | MAKING LEFT TURN |  |  |  |  | CENTRAL AV |  | 16 TH ST | DRIVER INATTENTION | NONE |
| 45 | GOING STRAIGHT |  |  |  |  | CENTRAL AV |  | 16 TH ST | ALCOHOL INVOLV | NONE |






| Severity |  |  |
| :---: | ---: | :---: |
| PDO: | 35 |  |
| INJ: | 9 | 24 :Injured |
| FAT: | 0 | 0 :Killed |
| Total: | 44 |  |


| Number of Vehicles  <br> One Vehicle: 1 <br> Two Vehicles: 41 <br> Three or More: 2 <br> Unknown: 0 <br> Total: 44 <br> On Road: 0 <br> Location  <br> Off Road Left: 0 <br> Off Road Right: 0 <br> Off in Median: 0 <br> Unknown: 44 <br> Total: 44 |
| :--- |


| - Accident Type |  |  |  |
| :---: | :---: | :---: | :---: |
| Overturning: | 0 | Median Barrier: | 0 |
| Other Non Collision: | 0 | Bridge Abutment: | 0 |
| School Age Peds: | 0 | Column/Pier: | 0 |
| Other Pedestrians: | 0 | Culvert/Headwall: | 0 |
| Broadside: | 14 | Embankment: | 0 |
| Head On: | 0 | Curb: | 0 |
| Rear End: | 13 | Delineator Post: | 0 |
| Sideswipe (Same): | 3 | Fence: | 0 |
| Sideswipe (Opposite): | 0 | Tree: | 0 |
| Approach Turn: | 12 | Large Boulder: | 0 |
| Overtaking Turn: | 0 | Rocks in Roadway: | 0 |
| Parked Motor Vehicle: | 0 | Barricade: | 0 |
| Railway Vehicle: | 0 | Wall/Building: | 0 |
| Bicycle: | 0 | Crash Cushion: | 0 |
| Motorized Bicycle: | 0 | Mailbox: | 0 |
| Domestic Animal: | 0 | Other Fixed Object: | 0 |
| Wild Animal: | 0 | Total Fixed Objects: | 1 |
| Light/Utility Pole: | 0 | Involving Other Object: | 0 |
| Traffic Signal Pole: | 0 | Road Maintenance Equipment: | 0 |
| Sign: | 1 | Total Other Objects: | 0 |
| Bridge Rail: | 0 | Unknown: | 1 |
| Guard Rail: | 0 | Total: | 44 |
| Cable Rail: | 0 |  |  |




| Contributing Factor | Veh 1 - Veh 2 - Veh 3 |  |  |
| :---: | :---: | :---: | :---: |
| No Apparent Contributing Factor: | 0 | 0 | 0 |
| Asleep at the Wheel: | 0 | 0 | 0 |
| Illness: | 0 | 0 | 0 |
| Distracted by Passenger: | 0 | 0 | 0 |
| Driver Inexperience: | 0 | 0 | 0 |
| Driver Fatigue: | 0 | 0 | 0 |
| Driver Preoccupied: | 0 | 0 | 0 |
| Driver Unfamilar with Area: | 0 | 0 | 0 |
| Driver Emotionally Upset: | 0 | 0 | 0 |
| Evading Law Enforcement Officier: | 0 | 0 | 0 |
| Physical Disability: | 0 | 0 | 0 |
| Unknown: | 44 | 43 | 2 |
| Total: | 44 | 43 | 2 |
| Condition of Driver | Veh 1 _ Veh 2 _ Veh 3 |  |  |
| No Impairment Suspected: | 0 | 0 | 0 |
| Alcohol Involved: | 0 | 0 | 0 |
| RX Drugs or Medication Involved: | 0 | 0 | 0 |
| Illegal Drugs Involved: | 0 | 0 | 0 |
| Alcohol and Drugs Involved: | 0 | 0 | 0 |
| Driver/Pedestrian not Observed: | 0 | 0 | 0 |
| Unknown: | 44 | 43 | 2 |
| Total: | 44 | 43 | 2 |

$\left[\begin{array}{rrrr} & \text { Direction } & \text { Veh ——Vh 2——Vh 3 } \\ \text { North: } & 11 & 7 & 0 \\ \text { Northeast: } & 0 & 0 & 0 \\ \text { East: } & 12 & 7 & 0 \\ \text { Southeast: } & 0 & 0 & 0 \\ \text { South: } & 16 & 10 & 0 \\ \text { Southwest: } & 0 & 0 & 0 \\ \text { West: } & 4 & 18 & 0 \\ \text { Northwest: } & 0 & 0 & 0 \\ \text { Unknown: } & 1 & 1 & 2 \\ \hline \text { Total: } & 44 & 43 & \mathbf{2} \\ \hline & & & \end{array}\right.$

| Location: Accident History for 19TH ST and CONVERSE |  |  |  | From:01/01/2002 To:12/31/2007 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - Vehicle Type | Veh 1 _ Veh 2 _ Veh 3 _ Vehicle Moveme |  |  |  | 1 |  | 3 |
| Passenger Car/Van: | 34 | 29 | 0 | Going Straight: | 21 | 30 | 0 |
| Passenger Car/Van w/Trl: | 0 | 0 | 0 | Slowing: | 2 | 0 | 0 |
| Pickup Truck/Utility Van: | 10 | 13 | 0 | Stopped in Traffic: | 1 | 11 | 0 |
| Pickup Truck/Utility Van w/Trl: | 0 | 0 | 0 | Making Right Turn: | 4 | 0 | 0 |
| Truck 10k lbs or Less: | 0 | 0 | 0 | Making Left Turn: | 14 | 0 | 0 |
| Trucks > 10k lbs/Bus > 15 People: | 0 | 0 | 0 | Making U-Turn: | 0 | 0 | 0 |
| School Bus < 15 People: | 0 | 0 | 0 | Passing: | 0 | 0 | 0 |
| Non School Bus < 15 People: | 0 | 0 | 0 | Backing: | 0 | 0 | 0 |
| Motorhome: | 0 | 0 | 0 | Enter/Leave Parked Position: | 0 | 0 | 0 |
| Motorcycle: | 0 | 1 | 0 | Starting in Traffic: | 0 | 2 | 0 |
| Bicycle: | 0 | 0 | 0 | Parked: | 0 | 0 | 0 |
| Motorized Bicycle: | 0 | 0 | 0 | Changing Lanes: | 1 | 0 | 0 |
| Farm Equipment: | 0 | 0 | 0 | Avoiding Object in Road: | 0 | 0 | 0 |
| Hit and Run - Unknown: | 0 | 0 | 0 | Weaving: | 0 | 0 | 0 |
| Other: | 0 | 0 | 0 | Other: | 0 | 0 | 0 |
| Unknown: | 0 | 0 | 2 | Unknown: | 1 | 0 | 2 |
| Total: | 44 | 43 | 2 | Total: | 44 | 43 | 2 |


| date |  | severity | serial | road desc | vehicles | condition | lighting | weather | ramp | acctype | dir_1 | vehicle_1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3/3/20003 | 0200 | INJ | 200304953 | INTERSECTION RELATED |  | 2 DRY | DARK-LIGHTED | NONE | N | REAR-END | W | PASS CARIVAN |
| 3/18/2006 | 1621 | PDO | 200605079 | INTERSECTION RELATED |  | 1 DRY | DAYLIGHT | NONE | N | SIGN | S | PASS CAR/VAN |
| 9/1/2002 | 1841 | PDO | 200214293 | AT INTERSECTION |  | 2 DRY | DAYLIGHT | NONE | N | BROADSIDE | s | PICKUP TRUCK/UTLLITY VAN |
| 10/2/2002 | 1037 | PDO | 200215562 | AT INTERSECTION |  | 2 WET | DAYLIGHT | RAIN | N | BROADSIDE | s | PASS CAR/VAN |
| 10/3/2002 | 1117 | PDO | 200215563 | AT INTERSECTION |  | 2 DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PICKUP TRUCKIUTLITY VAN |
| 12/3/2002 | 1733 | PDO | 200219843 | AT INTERSECTION |  | 2 WET | DARK-LIGHTED | NONE | N | BROADSIDE | s | PASS CAR/VAN |
| 6/6/2005 | 1627 | PDO | 200508378 | AT INTERSECTION |  | 2 DRY | DAYLIGHT | NONE | N | BROADSIDE | S | PASS CARIVAN |
| 2/23/2006 | 2250 | PDO | 200603434 | AT INTERSECTION |  | 2 DRY | DARK-LIGHTED | NONE | N | BROADSIDE | w | PASS CARIVAN |
| 6/30/2006 | 1407 | PDO | 200610674 | AT INTERSECTION |  | 2 DRY | DAYLIGHT | NONE | N | BROADSIDE | S | PASS CARIVAN |
| 10/4/2006 | 1052 | PDO | 200616164 | AT INTERSECTION |  | 2 DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PAsS CARIVAN |
| 1/15/2007 | 2000 | PDO | 200700573 | AT INTERSECTION |  | 2 ICY | DARK-LIGHTED | NONE | N | BROADSIDE | s | PASS CAR/VAN |
| 1/30/2007 | 1516 | PDO | 200701889 | AT INTERSECTION |  | 2 DRY | DAYLIGHT | NONE | N | BROADSIDE | s | PICKUP TRUCKIUTILITY VAN |
| 3/10/2007 | 0821 | PDO | 200704578 | AT INTERSECTION |  | 2 DRY | DAYLIGHT | UNKNOWN | N | BROADSIDE | N | PICKUP TRUCK/UTILITY VAN |
| 4/29/2007 | 1240 | PDO | 200707604 | AT INTERSECTION |  | 2 DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PAsS CAR/VAN |
| 9/8/2007 | 1806 | PDO | 200715355 | AT INTERSECTION |  | 2 DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PICKUP TRUCKIUTLLITY VAN |
| 10/31/2007 | 1040 | PDO | 200719248 | AT INTERSECTION |  | 2 DRY | DAYLIGHT | NONE | N | BROADSIDE | w | PASS CARIVAN |
| 2/24/2002 | 1503 | INJ | 200202765 | INTERSECTION RELATED |  | 2 DRY | DAYLIGHT | NONE | N | REAR-END | S | PASS CARIVAN |
| 4/6/2002 | 2044 | PDO | 200205389 | INTERSECTION RELATED |  | 2 DRY | DARK-LIGHTED | NONE | N | REAR-END | S | PICKUP TRUCKIUTILITY VAN |
| 5/16/2002 | 2034 | PDO | 200207386 | INTERSECTION RELATED |  | 2 WET | DAYLIGHT | RAIN | N | REAR-END | E | PASS CARIVAN |
| 5/27/2003 | 1453 | PDO | 200307723 | INTERSECTION RELATED |  | 2 DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CAR/VAN |
| 8/15/2003 | 1757 | INJ | 200312246 | INTERSECTION RELATED |  | 2 DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CAR/VAN |
| 12/13/2003 | 1349 | INJ | 200320280 | INTERSECTION RELATED |  | 2 WET | DAYLIGHT | NONE | N | REAR-END | s | PICKUP TRUCKIUTILITY VAN |
| 2/29/2004 | 1537 | PDO | 200403274 | INTERSECTION RELATED |  | 2 ICY | DAYLIGHT | SNOW/SLEET/HAIL | N | REAR-END | S | PICKUP TRUCKIUTILITY VAN |
| 8/25/2004 | 1231 | PDO | 200413266 | INTERSECTION RELATED |  | 2 DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CARIVAN |
| 9/21/2004 | 1839 | PDO | 200414252 | INTERSECTION RELATED |  | 2 WET | DAWN OR DUSK | RAIN | N | REAR-END |  | PICKUP TRUCK/UTLLITY VAN |
| 11/26/2004 | 1013 | PDO | 200418678 | AT INTERSECTION |  | 3 WET | DAYLIGHT | SNOW/SLEET/HAIL | N | REAR-END | s | PASS CARIVAN |
| 2/9/2006 | 1904 | PDO | 200602352 | INTERSECTION RELATED |  | 2 ICY | DARK-LIGHTED | SNOW/SLEET/HAIL | N | REAR-END | S | PASS CARIVAN |
| 7/2/2007 | 1506 | INJ | 200711068 | AT INTERSECTION |  | 3 DRY | DAYLIGHT | NONE | N | REAR-END | S | PASS CARIVAN |
| 4/4/2003 | 1210 | PDO | 200305332 | INTERSECTION RELATED |  | 2 DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | N | PASS CARIVAN |
| 5/5/2003 | 1906 | PDO | 200306548 | INTERSECTION RELATED |  | 2 DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | N | PASS CAR/VAN |
| 5/1/2004 | 1143 | PDO | 200406515 | AT INTERSECTION |  | 2 DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | E | PASS CARIVAN |
| 3/14/2003 | 0856 | INJ | 200304153 | AT INTERSECTION |  | 2 DRY | DAYLIGHT | NONE | N | APPROACH TURN | E | PICKUP TRUCK/UTILITY VAN |
| 12/15/2003 | 1653 | INJ | 200320285 | AT INTERSECTION |  | 2 DRY | DAYLIGHT | NONE | N | APPROACH TURN | E | PASS CAR/VAN |
| 1/6/2005 | 1200 | PDO | 200500319 | AT INTERSECTION |  | 2 SLUSHY | DAYLIGHT | NONE | N | APPROACH TURN | N | PASS CARIVAN |
| 1/24/2005 | 0918 | PDO | 200501706 | AT INTERSECTION |  | 2 DRY | DAYLIGHT | NONE | N | APPROACH TURN |  | PASS CARIVAN |
| 2/16/2005 | 1936 | PDO | 200503009 | AT INTERSECTION |  | 2 DRY | DARK-LIGHTED | NONE | N | APPROACH TURN | E | PASS CARIVAN |
| 5/13/2005 | 1001 | PDO | 200507320 | AT INTERSECTION |  | 2 DRY | DAYLIGHT | NONE | N | APPROACH TURN | w | PASS CARIVAN |
| 10/4/2005 | 1651 | PDO | 200515693 | AT INTERSECTION |  | 2 WET | DAYLIGHT | RAIN | N | APPROACH TURN | E | PASS CARIVAN |
| 1/18/2006 | 0812 | PDO | 200600673 | AT INTERSECTION |  | 2 DRY | DAYLIGHT | NONE | N | APPROACH TURN | E | PASS CAR/VAN |
| 10/25/2006 | 1946 | INJ | 200617346 | AT INTERSECTION |  | 2 DRY | DAYLIGHT | NONE | N | APPROACH TURN |  | PASS CARIVAN |
| 1/13/2007 | 2150 | PDO | 200700563 | AT INTERSECTION |  | 2 ICY | DARK-LIGHTED | NONE | N | APPROACH TURN | E | PAss CAR/VAN |
| 2/25/2007 | 1021 | PDO | 200703648 | AT INTERSECTION |  | 2 WET | DAYLIGHT | NONE | N | APPROACH TURN |  | PASS CARIVAN |
| 11/13/2007 | 2014 | inj | 200719441 | AT INTERSECTION |  | 2 WET | DARK-LIGHTED | RAIN | N | APPROACH TURN |  | PASS CARIVAN |
| 2/28/2004 | 1130 | PDO | 200403288 | INTERSECTION RELATED |  | 2 UNKNOWN | UNKNOWN | UNKNOWN | N | UNKNOWN | UK | PASS CAR/VAN |


| speed_1 | veh move_1 | dir_2 | vehicle_2 | speed_2 | veh move_2 | loc 01 | link | loc 02 | violcode_1 | violcode_2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | GOING STRAIGHT | w | PASS CARIVAN | 0 | STOPPED IN TRAFFIC | 19TH ST |  | CONVERSE | ALCOHOL INVOLV | NO APPARENT VIOL |
| 20 | MAKING RIGHT TURN |  |  |  |  | 19TH ST |  | CONVERSE | UNSAFE SPD FOR COND | NONE |
| 30 | GOING STRAIGHT | w | PASS CARIVAN | 30 | GOING STRAIGHT | CONVERSE |  | 19TH ST | PSGR DISTRACTN | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | E | PASS CARIVAN | 10 | STARTING IN TRAFFIC | CONVERSE |  | 19TH ST | TRAF CNTRL DISRE | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | w | PASS CARIVAN | 5 | GOING STRAIGHT | CONVERSE |  | 19TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | E | PASS CARIVAN | 30 | GOING STRAIGHT | CONVERSE |  | 19TH ST | DRIVER INATTENTION | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | E | PASS CAR/VAN | 10 | GOING STRAIGHT | CONVERSE |  | 19 H ST | NONE | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | N | PASS CARIVAN | 30 | GOING STRAIGHT | CONVERSE |  | 19TH ST | OTHER | NO APPARENT VIOL |
| 15 | GOING STRAIGHT | E | PICKUP TRUCK/UTILITY VAN | 25 | GOING STRAIGHT | CONVERSE |  | 19TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 10 | MAKING LEFT TURN | w | PICKUP TRUCK/UTLITY VAN | 25 | GOING STRAIGHT | CONVERSE |  | 19TH ST | TURNING IMPROP | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | E | PASS CARIVAN | 10 | STARTING IN TRAFFIC | CONVERSE |  | 19TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 15 | GOING STRAIGHT | E | PICKUP TRUCK/UTILITY VAN | 15 | GOING STRAIGHT | CONVERSE |  | 19TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | w | PICKUP TRUCK/UTLIITY VAN | 30 | GOING STRAIGHT | CONVERSE |  | 19TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 25 | GOING STRAIGHT | w | PASS CARIVAN | 20 | GOING STRAIGHT | CONVERSE |  | 19TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | w | PASS CAR/VAN | 30 | GOING STRAIGHT | CONVERSE |  | 19 TH ST | NO APPARENT VIOL | TRAF CNTRL DISREG |
| 8 | MAKING RIGHT TURN | N | PASS CAR/VAN | 30 | GOING STRAIGHT | CONVERSE |  | 19TH ST | NONE | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | s | PASS CARIVAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | 19TH ST | DRIVER INATTENTION | NO APPARENT VIOL |
| 15 | GOING STRAIGHT | S | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | 19TH ST | DRIVER INATTENTION | NO APPARENT VIOL |
| UK | MAKING RIGHT TURN | S | PASS CAR/VAN | 27 | GOING STRAIGHT | CONVERSE |  | 19TH ST | NONE | NO APPARENT VIOL |
| 10 | CHANGING LANES | N | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | 19TH ST | DRIVER INATTENTION | NO APPARENT VIOL |
| 10 | SLOWING | N | MOTORCYCLE | 0 | STOPPED IN TRAFFIC | CONVERSE |  | 19TH ST | ALCOHOL INVOLV | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | s | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | 19TH ST | DRIVER INATTENTION | NO APPARENT VIOL |
| 10 | UNKNOWN | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | 19TH ST | NONE | NO APPARENT VIOL |
| 0 | STOPPED IN TRAFFIC |  | PICKUP TRUCK/UTILITY VAN |  | GOING STRAIGHT | CONVERSE |  | 19TH ST | NONE | NONE |
| 10 | SLOWING | s | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | 19TH ST | NONE | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | s | PASS CARIVAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | 19TH ST | NONE | NO APPARENT VIOL |
| 2 | GOING STRAIGHT | s | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | 19TH ST | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| UK | GOING STRAIGHT | S | PASS CAR/VAN | UK | GOING STRAIGHT | CONVERSE |  | 19TH ST | DRIVER INATTENTION | DRIVER INATTENTION |
| 25 | GOING STRAIGHT | N | PICKUP TRUCK/UTILITY VAN | 20 | GOING STRAIGHT | CONVERSE |  | 19TH ST | IMPROP PASS | NO APPARENT VIOL |
| 5 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CONVERSE |  | 19TH ST | ALCOHOL INVOLV | NO APPARENT VIOL |
| 5 | MAKING RIGHT TURN | s | PASS CAR/VAN | 20 | GOING STRAIGHT | CONVERSE |  | 19TH ST | NONE | NO APPARENT VIOL |
| 25 | MAKING LEFT TURN | w | PASS CAR/VAN | 30 | GOING STRAIGHT | CONVERSE |  | 19TH ST | TURNING IMPROP | NO APPARENT VIOL |
| 25 | MAKING LEFT TURN | w | PASS CAR/VAN | 30 | GOING STRAIGHT | CONVERSE |  | 19TH ST | TURNING IMPROP | NO APPARENT VIOL |
| 35 | MAKING LEFT TURN | w | PICKUP TRUCK/UTILITY VAN | 35 | GOING STRAIGHT | CONVERSE |  | 19TH ST | NONE | NO APPARENT VIOL |
| 25 | MAKING LEFT TURN | w | PICKUP TRUCK/UTILITY VAN | 1 | GOING STRAIGHT | CONVERSE |  | 19TH ST | NONE | NO APPARENT VIOL |
| 15 | MAKING LEFT TURN | w | PASS CAR/VAN | 30 | GOING STRAIGHT | CONVERSE |  | 19TH ST | TURNING IMPROP | NO APPARENT VIOL |
| 5 | MAKING LEFT TURN | E | PASS CAR/VAN | 30 | GOING STRAIGHT | CONVERSE |  | 19TH ST | NONE | NO APPARENT VIOL |
| 10 | MAKING LEFT TURN | w | PAss car/van | 25 | GOING STRAIGHT | CONVERSE |  | 19 TH ST | NONE | NO APPARENT VIOL |
| 10 | MAKING LEFT TURN | w | PASS CAR/VAN | 40 | GOING STRAIGHT | CONVERSE |  | 19TH ST | DRIVER INATTENTION | DRIVER INEXPERIENCE |
| 25 | MAKING LEFT TURN | w | PASS CAR/VAN | 30 | GOING STRAIGHT | CONVERSE |  | 19TH ST | NONE | NO APPARENT VIOL |
| 10 | MAKING LEFT TURN | w | PAss car/van | 25 | GOING STRAIGHT | CONVERSE |  | 19TH ST | TURNING IMPROP | NO APPARENT VIOL |
| 5 | MAKING LEFT TURN | w | PICKUP TRUCK/UTILITY VAN | 25 | GOING STRAIGHT | CONVERSE |  | 19TH ST | DRIVER INATTENTION | NO APPARENT VIOL |
| 10 | MAKING LEFT TURN | w | PICKUP TRUCK/UTILITY VAN | 30 | GOING STRAIGHT | CONVERSE |  | 19TH ST | NONE | NO APPARENT VIOL |
| 3 | MAKING LEFT TURN | UK | PICKUP TRUCK/UTILITY VAN | UK | GOING STRAIGHT | CONVERSE |  | 19TH ST | NONE | NONE |



| Contributing Factor | Veh 1 — Veh 2 - Veh 3 |  |  | Direction |  |  | Veh 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No Apparent Contributing Factor: | 0 | 0 | 0 | North: | 3 | 7 | 0 |
| Asleep at the Wheel: | 0 | 0 | 0 | Northeast: | 0 | 0 | 0 |
| Illness: | 0 | 0 | 0 | East: | 3 | 0 | 0 |
| Distracted by Passenger: | 0 | 0 | 0 | Southeast: | 0 | 0 | 0 |
| Driver Inexperience: | 0 | 0 | 0 | South: | 1 | 2 | 0 |
| Driver Fatigue: | 0 | 0 | 0 | Southwest: | 0 | 0 | 0 |
| Driver Preoccupied: | 0 | 0 | 0 | West: | 6 | 2 | 0 |
| Driver Unfamilar with Area: | 0 | 0 | 0 | Northwest: | 0 | 0 | 0 |
| Driver Emotionally Upset: | 0 | 0 | 0 | Unknown: | 0 | 0 | 0 |
| Evading Law Enforcement Officier: | 0 | 0 | 0 | Total: | 13 | 11 | 0 |
| Physical Disability: | 0 | 0 | 0 | Totar: | 13 | 11 | 0 |
| Unknown: | 13 | 11 | 0 |  |  |  |  |
| Total: | 13 | 11 | 0 |  |  |  |  |
| Condition of Driver | 1 | 2 |  |  |  |  |  |
| No Impairment Suspected: | 0 | 0 | 0 |  |  |  |  |
| Alcohol Involved: | 0 | 0 | 0 |  |  |  |  |
| RX Drugs or Medication Involved: | 0 | 0 | 0 |  |  |  |  |
| Illegal Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Alcohol and Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Driver/Pedestrian not Observed: | 0 | 0 | 0 |  |  |  |  |
| Unknown: | 13 | 11 | 0 |  |  |  |  |
| Total: | 13 | 11 | 0 |  |  |  |  |


|  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No Apparent Contributing Factor: | 0 | 0 | 0 | North: | 3 | 7 | 0 |
| Asleep at the Wheel: | 0 | 0 | 0 | Northeast: | 0 | 0 | 0 |
| Illness: | 0 | 0 | 0 | East: | 3 | 0 | 0 |
| Distracted by Passenger: | 0 | 0 | 0 | Southeast: | 0 | 0 | 0 |
| Driver Inexperience: | 0 | 0 | 0 | South: | 1 | 2 | 0 |
| Driver Fatigue: | 0 | 0 | 0 | Southwest: | 0 | 0 | 0 |
| Driver Preoccupied: | 0 | 0 | 0 | West: | 6 | 2 | 0 |
| Driver Unfamilar with Area: | 0 | 0 | 0 | Northwest: | 0 | 0 | 0 |
| Driver Emotionally Upset: | 0 | 0 | 0 | Unknown: | 0 | 0 | 0 |
| Evading Law Enforcement Officier: | 0 | 0 | 0 | Total: | 13 | 11 | 0 |
| Physical Disability: | 0 | 0 | 0 |  |  |  |  |
| Unknown: | 13 | 11 | 0 |  |  |  |  |
| Total: | 13 | 11 | 0 |  |  |  |  |
| dition of Driver__Veh 1 _ Veh 2 _ Veh 3 |  |  |  |  |  |  |  |
| No Impairment Suspected: | 0 | 0 | 0 |  |  |  |  |
| Alcohol Involved: | 0 | 0 | 0 |  |  |  |  |
| RX Drugs or Medication Involved: | 0 | 0 | 0 |  |  |  |  |
| Illegal Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Alcohol and Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Driver/Pedestrian not Observed: | 0 | 0 | 0 |  |  |  |  |
| Unknown: | 13 | 11 | 0 |  |  |  |  |
| Total: | 13 | 11 | 0 |  |  |  |  |


| Location: Accident History for FOUR MILE and YELLOWSTONE |  |  |  | From:01/01/2002 To:12/31/2007 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Veh 1 _ Veh 2 |  |  | - Vehicle Movement_ Veh 1 _ Veh 2 __Veh 3 _ |  |  |  |
| Passenger Car/Van: | 7 | 8 | 0 | Going Straight: | 8 | 9 | 0 |
| Passenger Car/Van w/Trl: | 0 | 0 | 0 | Slowing: | 0 | 0 | 0 |
| Pickup Truck/Utility Van: | 6 | 3 | 0 | Stopped in Traffic: | 0 | 0 | 0 |
| Pickup Truck/Utility Van w/Trl: | 0 | 0 | 0 | Making Right Turn: | 0 | 1 | 0 |
| Truck 10k lbs or Less: | 0 | 0 | 0 | Making Left Turn: | 2 | 0 | 0 |
| Trucks > 10k lbs/Bus > 15 People: | 0 | 0 | 0 | Making U-Turn: | 0 | 0 | 0 |
| School Bus < 15 People: | 0 | 0 | 0 | Passing: | 0 | 0 | 0 |
| Non School Bus < 15 People: | 0 | 0 | 0 | Backing: | 0 | 0 | 0 |
| Motorhome: | 0 | 0 | 0 | Enter/Leave Parked Position: | 0 | 0 | 0 |
| Motorcycle: | 0 | 0 | 0 | Starting in Traffic: | 3 | 1 | 0 |
| Bicycle: | 0 | 0 | 0 | Parked: | 0 | 0 | 0 |
| Motorized Bicycle: | 0 | 0 | 0 | Changing Lanes: | 0 | 0 | 0 |
| Farm Equipment: | 0 | 0 | 0 | Avoiding Object in Road: | 0 | 0 | 0 |
| Hit and Run - Unknown: | 0 | 0 | 0 | Weaving: | 0 | 0 | 0 |
| Other: | 0 | 0 | 0 | Other: | 0 | 0 | 0 |
| Unknown: | 0 | 0 | 0 | Unknown: | 0 | 0 | 0 |
| Total: | 13 | 11 | 0 | Total: | 13 | 11 | 0 |


| date | time | severity | serial | road_desc | vehicles | condition | lighting | weather | ramp | acctype | dir_1 | vehicle_1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1/7/2002 | 1530 | PDO | 200200340 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PASS CAR/VAN |
| 5/9/2002 | 1150 | PDO | 200207056 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PICKUP TRUCK/UTILITY VAN |
| 11/22/2002 | 1738 | PDO | 200218836 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | E | PASS CAR/VAN |
| 8/24/2004 | 1310 | PDO | 200413242 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PICKUP TRUCK/UTILITY VAN |
| 10/7/2004 | 1708 | INJ | 200415361 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PICKUP TRUCK/UTILITY VAN |
| 6/21/2005 | 1130 | INJ | 200509291 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PASS CAR/VAN |
| 7/11/2005 | 1215 | INJ | 200510612 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PASS CAR/VAN |
| 8/18/2005 | 1725 | INJ | 200512247 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PICKUP TRUCK/UTILITY VAN |
| 10/26/2005 | 1342 | INJ | 200516861 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PICKUP TRUCK/UTILITY VAN |
| 11/17/2005 | 1615 | INJ | 200518346 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PASS CAR/VAN |
| 2/9/2003 | 1005 | INJ | 200302155 | AT INTERSECTION | 2 | SNOWY | DAYLIGHT | WIND | N | OVERTAKING TURN | N | PICKUP TRUCK/UTILITY VAN |
| 12/20/2006 | 0010 | INJ | 200621889 | INTERSECTION RELATED | 1 | WET | DARK-LIGHTED | NONE | N | GUARD RAIL | W | PASS CAR/VAN |
| 8/17/2003 | 1200 | INJ | 200312609 | INTERSECTION RELATED | 1 | DRY | DAYLIGHT | NONE | N | EMBANKMENT CUT/FILL SLOPE | S | PASS CAR/VAN |


| speed_1 | veh_move_1 | dir_2 | vehicle_2 | speed_2 | veh_move_2 | loc_01 | link | loc_02 | violcode_1 | violcode_2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 40 | GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN |  | STARTING IN TRAFFIC | FOUR MILE |  | YELLOWSTON | NONE | NONE |
| 40 | GOING STRAIGHT | S | PASS CAR/VAN | 45 | GOING STRAIGHT | FOUR MILE |  | YELLOWSTON | NONE | NO APPARENT VIOL |
| 5 | STARTING IN TRAFFIC | N | PASS CAR/VAN | 38 | GOING STRAIGHT | FOUR MILE |  | YELLOWSTON | NONE | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | S | PASS CAR/VAN | 50 | GOING STRAIGHT | FOUR MILE |  | YELLOWSTON | DRIVER INATTENTION | NO APPARENT VIOL |
| 40 | GOING STRAIGHT | W | PASS CAR/VAN | 20 | GOING STRAIGHT | FOUR MILE |  | YELLOWSTON | NO APPARENT VIOL | DRIVER INATTENTION |
| 30 | MAKING LEFT TURN | N | PASS CAR/VAN | 40 | GOING STRAIGHT | FOUR MILE |  | YELLOWSTON | NONE | NO APPARENT VIOL |
| 10 | STARTING IN TRAFFIC | N | PASS CAR/VAN | 35 | GOING STRAIGHT | FOUR MILE |  | YELLOWSTON | NONE | NO APPARENT VIOL |
| 5 | STARTING IN TRAFFIC | N | PASS CAR/VAN | 40 | GOING STRAIGHT | FOUR MILE |  | YELLOWSTON | NONE | NO APPARENT VIOL |
| 15 | GOING STRAIGHT | N | PICKUP TRUCK/UTILITY VAN | 40 | GOING STRAIGHT | FOUR MILE |  | YELLOWSTON | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 3 | MAKING LEFT TURN | N | PICKUP TRUCK/UTILITY VAN | 40 | GOING STRAIGHT | FOUR MILE |  | YELLOWSTON | NONE | NO APPARENT VIOL |
| UK | GOING STRAIGHT | N | PASS CAR/VAN | 40 | MAKING RIGHT TURN | FOUR MILE |  | YELLOWSTON | NO APPARENT VIOL | TURNING IMPROP |
| 50 | GOING STRAIGHT |  |  |  |  | FOUR MILE |  | YELLOWSTON | ALCOHOL INVOLV | NONE |
| 50 | GOING STRAIGHT |  |  |  |  | YELLOWSTON |  | FOUR MILE | UNSAFE SPD FOR COND | NONE |



| Contributing Factor |  |  |  | Veh 1 - Veh 2 - Veh 3 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No Apparent Contributing Factor: | 0 | 0 | 0 | North: | 13 | 11 | 0 |
| Asleep at the Wheel: | 0 | 0 | 0 | Northeast: | 0 | 0 | 0 |
| Illness: | 0 | 0 | 0 | East: | 12 | 8 | 0 |
| Distracted by Passenger: | 0 | 0 | 0 | Southeast: | 0 | 0 | 0 |
| Driver Inexperience: | 0 | 0 | 0 | South: | 8 | 8 | 0 |
| Driver Fatigue: | 0 | 0 | 0 | Southwest: | 0 | 0 | 0 |
| Driver Preoccupied: | 0 | 0 | 0 | West: | 4 | 10 | 0 |
| Driver Unfamilar with Area: | 0 | 0 | 0 | Northwest: | 1 | 0 | 0 |
| Driver Emotionally Upset: | 0 | 0 | 0 | Unknown: | 0 | 0 | 5 |
| Evading Law Enforcement Officier: | 0 | 0 | 0 | Total: | 38 | 37 | 5 |
| Physical Disability: | 0 | 0 | 0 | Total. | 36 | 37 | 5 |
| Unknown: | 38 | 37 | 5 |  |  |  |  |
| Total: | 38 | 37 | 5 |  |  |  |  |
| Condition of Driver | 1 | 2 |  |  |  |  |  |
| No Impairment Suspected: | 0 | 0 | 0 |  |  |  |  |
| Alcohol Involved: | 0 | 0 | 0 |  |  |  |  |
| RX Drugs or Medication Involved: | 0 | 0 | 0 |  |  |  |  |
| Illegal Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Alcohol and Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Driver/Pedestrian not Observed: | 0 | 0 | 0 |  |  |  |  |
| Unknown: | 38 | 37 | 5 |  |  |  |  |
| Total: | 38 | 37 | 5 |  |  |  |  |


| - Contributing Factor_-Veh 1 _ Veh 2 _ Veh 3 - Direction_ Veh 1 - Veh 2 - Veh 3 - |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No Apparent Contributing Factor: | 0 | 0 | 0 | North: | 13 | 11 | 0 |
| Asleep at the Wheel: | 0 | 0 | 0 | Northeast: | 0 | 0 | 0 |
| Illness: | 0 | 0 | 0 | East: | 12 | 8 | 0 |
| Distracted by Passenger: | 0 | 0 | 0 | Southeast: | 0 | 0 | 0 |
| Driver Inexperience: | 0 | 0 | 0 | South: | 8 | 8 | 0 |
| Driver Fatigue: | 0 | 0 | 0 | Southwest: | 0 | 0 | 0 |
| Driver Preoccupied: | 0 | 0 | 0 | West: | 4 | 10 | 0 |
| Driver Unfamilar with Area: | 0 | 0 | 0 | Northwest: | 1 | 0 | 0 |
| Driver Emotionally Upset: | 0 | 0 | 0 | Unknown: | 0 | 0 | 5 |
| Evading Law Enforcement Officier: | 0 | 0 | 0 | Total: | 38 | 37 | 5 |
| Physical Disability: | 0 | 0 | 0 | Total: | 38 | 37 | 5 |
| Unknown: | 38 | 37 | 5 |  |  |  |  |
| Total: | 38 | 37 | 5 |  |  |  |  |
| dition of Driver__ Veh 1 __ Veh $2 \ldots$ Veh 3 |  |  |  |  |  |  |  |
| No Impairment Suspected: | 0 | 0 | 0 |  |  |  |  |
| Alcohol Involved: | 0 | 0 | 0 |  |  |  |  |
| RX Drugs or Medication Involved: | 0 | 0 | 0 |  |  |  |  |
| Illegal Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Alcohol and Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Driver/Pedestrian not Observed: | 0 | 0 | 0 |  |  |  |  |
| Unknown: | 38 | 37 | 5 |  |  |  |  |
| Total: | 38 | 37 | 5 |  |  |  |  |


| Location: Accident History for LINCOLNWAY and RIDGE |  |  |  | From:01/01/2002 To:12/31/2007 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - Vehicle Type |  |  |  |  |  |  |  |
| Passenger Car/Van: | 32 | 32 | 0 | Going Straight: | 24 | 28 | 0 |
| Passenger Car/Van w/Trl: | 0 | 0 | 0 | Slowing: | 1 | 1 | 0 |
| Pickup Truck/Utility Van: | 6 | 5 | 0 | Stopped in Traffic: | 0 | 7 | 0 |
| Pickup Truck/Utility Van w/Trl: | 0 | 0 | 0 | Making Right Turn: | 0 | 1 | 0 |
| Truck 10k lbs or Less: | 0 | 0 | 0 | Making Left Turn: | 9 | 0 | 0 |
| Trucks > 10k lbs/Bus > 15 People: | 0 | 0 | 0 | Making U-Turn: | 0 | 0 | 0 |
| School Bus < 15 People: | 0 | 0 | 0 | Passing: | 0 | 0 | 0 |
| Non School Bus < 15 People: | 0 | 0 | 0 | Backing: | 1 | 0 | 0 |
| Motorhome: | 0 | 0 | 0 | Enter/Leave Parked Position: | 0 | 0 | 0 |
| Motorcycle: | 0 | 0 | 0 | Starting in Traffic: | 3 | 0 | 0 |
| Bicycle: | 0 | 0 | 0 | Parked: | 0 | 0 | 0 |
| Motorized Bicycle: | 0 | 0 | 0 | Changing Lanes: | 0 | 0 | 0 |
| Farm Equipment: | 0 | 0 | 0 | Avoiding Object in Road: | 0 | 0 | 0 |
| Hit and Run - Unknown: | 0 | 0 | 0 | Weaving: | 0 | 0 | 0 |
| Other: | 0 | 0 | 0 | Other: | 0 | 0 | 0 |
| Unknown: | 0 | 0 | 5 | Unknown: | 0 | 0 | 5 |
| Total: | 38 | 37 | 5 | Total: | 38 | 37 | 5 |


| date | time | severity | serial | road_desc | vehicles | condition | lighting | weather | ramp | acctype | dir_1 | vehicle_1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8/26/2004 | 2033 | INJ | 200413225 | INTERSECTION RELATED | 1 | WET | DAYLIGHT | RAIN | N | PEDESTRIAN (ALL OTHER) | S | PASS CAR/VAN |
| 1/2/2002 | 2305 | PDO | 200200020 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | N | PASS CAR/VAN |
| 2/27/2002 | 1732 | INJ | 200202998 | AT INTERSECTION | 2 | DRY | DAWN OR DUSK | NONE | N | BROADSIDE | W | PASS CAR/VAN |
| 6/28/2002 | 0707 | PDO | 200209733 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | S | PASS CAR/VAN |
| 6/23/2003 | 1632 | PDO | 200309027 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PASS CAR/VAN |
| 10/13/2003 | 0806 | INJ | 200315737 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PICKUP TRUCK/UTILITY VAN |
| 7/10/2004 | 1813 | INJ | 200410039 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PASS CAR/VAN |
| 9/1/2004 | 0641 | INJ | 200413275 | AT INTERSECTION | 2 | DRY | DAWN OR DUSK | NONE | N | BROADSIDE | NW | PASS CAR/VAN |
| 10/19/2004 | 2322 | PDO | 200416040 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | S | PASS CAR/VAN |
| 3/18/2005 | 0042 | PDO | 200504607 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | N | PICKUP TRUCK/UTILITY VAN |
| 3/20/2005 | 1318 | INJ | 200504298 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PASS CAR/VAN |
| 9/19/2005 | 1511 | FAT | 200514808 | AT INTERSECTION | 3 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PASS CAR/VAN |
| 12/5/2005 | 0952 | PDO | 200519051 | AT INTERSECTION | 3 | DRY | DAYLIGHT | WIND | N | BROADSIDE | E | PASS CAR/VAN |
| 12/23/2005 | 1955 | PDO | 200521139 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | N | PASS CAR/VAN |
| 3/26/2006 | 0215 | PDO | 200605137 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | FOG | N | BROADSIDE | N | PASS CAR/VAN |
| 7/3/2006 | 1742 | PDO | 200610681 | AT INTERSECTION | 2 | WET | DAYLIGHT | NONE | N | BROADSIDE | W | PASS CAR/VAN |
| 7/9/2006 | 0411 | PDO | 200611195 | AT INTERSECTION | 2 | WET | DARK-LIGHTED | RAIN | N | BROADSIDE | S | PASS CAR/VAN |
| 2/20/2007 | 0835 | INJ | 200703432 | AT INTERSECTION | 3 | ICY | DAYLIGHT | NONE | N | BROADSIDE | E | PICKUP TRUCK/UTILITY VAN |
| 7/3/2007 | 1551 | PDO | 200711073 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | S | PICKUP TRUCK/UTILITY VAN |
| 10/14/2007 | 0230 | PDO | 200717894 | AT INTERSECTION | 2 | WET | DARK-LIGHTED | RAIN | N | BROADSIDE | E | PASS CAR/VAN |
| 11/11/2007 | 1446 | INJ | 200719320 | AT INTERSECTION | 3 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PASS CAR/VAN |
| 2/13/2004 | 1629 | INJ | 200402450 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PASS CAR/VAN |
| 6/9/2007 | 1354 | PDO | 200709554 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | S | PASS CAR/VAN |
| 7/13/2007 | 1254 | INJ | 200711911 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PASS CAR/VAN |
| 11/19/2007 | 1653 | PDO | 200720231 | INTERSECTION RELATED | 2 | DRY | DAWN OR DUSK | NONE | N | REAR-END | E | PASS CAR/VAN |
| 10/19/2003 | 0738 | PDO | 200315971 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | E | PASS CAR/VAN |
| 2/28/2002 | 1533 | INJ | 200203039 | AT INTERSECTION | 2 | DRY | DAYLIGHT | SNOW/SLEET/HAIL | N | APPROACH TURN | E | PASS CAR/VAN |
| 12/13/2002 | 1027 | PDO | 200220232 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | N | PICKUP TRUCK/UTILITY VAN |
| 9/22/2003 | 1659 | INJ | 200314366 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | S | PASS CAR/VAN |
| 10/27/2004 | 1513 | INJ | 200416461 | AT INTERSECTION | 3 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | E | PASS CAR/VAN |
| 3/22/2005 | 0859 | INJ | 200504721 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | E | PICKUP TRUCK/UTILITY VAN |
| 7/16/2006 | 0934 | PDO | 200611304 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | N | PASS CAR/VAN |
| 1/24/2007 | 1623 | INJ | 200701814 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | E | PASS CAR/VAN |
| 8/3/2006 | 1554 | PDO | 200612832 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | HEAD-ON | N | PASS CAR/VAN |
| 5/16/2002 | 0748 | INJ | 200207379 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CAR/VAN |
| 6/26/2004 | 0041 | PDO | 200409310 | INTERSECTION RELATED | 2 | DRY | DARK-LIGHTED | NONE | N | REAR-END | N | PASS CAR/VAN |
| 12/23/2004 | 1112 | PDO | 200420740 | INTERSECTION RELATED | 2 | SNOWY | DAYLIGHT | NONE | N | REAR-END | N | PASS CAR/VAN |
| 8/2/2005 | 1441 | PDO | 200511568 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | S | PASS CAR/VAN |


| speed_1 | veh_move_1 | dir_2 | vehicle_2 | speed_2 | veh_move_2 | loc_01 | link | loc_02 | violcode_1 | violcode_2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | MAKING LEFT TURN |  |  |  |  | E.LINCOLNW |  | RIDGE RD | NO APPARENT VIOL | NONE |
| 30 | GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | 45 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | NONE | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | N | PASS CAR/VAN | 35 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | W | PASS CAR/VAN | 35 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 5 | MAKING LEFT TURN | W | PASS CAR/VAN | 20 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | NONE | NO APPARENT VIOL |
| 20 | STARTING IN TRAFFIC | W | PASS CAR/VAN | 40 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | ILLNESS | NO APPARENT VIOL |
| 45 | GOING STRAIGHT | S | PASS CAR/VAN | 10 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | N | PASS CAR/VAN | UK | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | TRAF CNTRL DISREG | DRIVER INATTENTION |
| 30 | GOING STRAIGHT | E | PASS CAR/VAN | 40 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | 35 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | DRIVER INATTENTION | NO APPARENT VIOL |
| 45 | GOING STRAIGHT | S | PASS CAR/VAN | 20 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 40 | GOING STRAIGHT | N | PASS CAR/VAN | 20 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | TRAF CNTRL DISREG | NO APPARENT VIOL |
| UK | GOING STRAIGHT | S | PASS CAR/VAN | 10 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | NONE | NO APPARENT VIOL |
| UK | GOING STRAIGHT | E | PASS CAR/VAN | 30 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | DRIVER INATTENTION | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | E | PASS CAR/VAN | 25 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | ILLNESS | DRIVER INATTENTION |
| 45 | GOING STRAIGHT | N | PASS CAR/VAN | 25 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | NONE | NO APPARENT VIOL |
| 25 | GOING STRAIGHT | E | PASS CAR/VAN | 25 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | NONE | NO APPARENT VIOL |
| 40 | GOING STRAIGHT | N | PICKUP TRUCK/UTILITY VAN | 20 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | DRIVER INATTENTION | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | W | PASS CAR/VAN | 45 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 43 | GOING STRAIGHT | N | PASS CAR/VAN | 35 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | PSGR DISTRACTN | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | E | PASS CAR/VAN | 35 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | E | PASS CAR/VAN | 10 | SLOWING | E.LINCOLNW |  | RIDGE RD | ALCOHOL INVOLV | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | S | PASS CAR/VAN | 5 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | NONE | NO APPARENT VIOL |
| 5 | GOING STRAIGHT | E | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | E.LINCOLNW |  | RIDGE RD | DRIVER INATTENTION | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | E | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | E.LINCOLNW |  | RIDGE RD | DRIVER INEXPERIENCE | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | N | PASS CAR/VAN | 10 | MAKING RIGHT TURN | E.LINCOLNW |  | RIDGE RD | OTHER | OTHER |
| 20 | MAKING LEFT TURN | W | PASS CAR/VAN | 30 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | NONE | NO APPARENT VIOL |
| 15 | MAKING LEFT TURN | S | PASS CAR/VAN | 25 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | DRIVER INATTENTION | NO APPARENT VIOL |
| 5 | MAKING LEFT TURN | N | PASS CAR/VAN | 30 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | NONE | NO APPARENT VIOL |
| 20 | MAKING LEFT TURN | W | PASS CAR/VAN | 30 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | NONE | NO APPARENT VIOL |
| 15 | MAKING LEFT TURN | W | PASS CAR/VAN | 40 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | DRIVER INATTENTION | NO APPARENT VIOL |
| 10 | MAKING LEFT TURN | S | PASS CAR/VAN | 30 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | NONE | NO APPARENT VIOL |
| 30 | MAKING LEFT TURN | W | PASS CAR/VAN | 48 | GOING STRAIGHT | E.LINCOLNW |  | RIDGE RD | NONE | NO APPARENT VIOL |
| 3 | BACKING | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | RIDGE RD |  | E.LINCOLNW | BACKING UNSAFELY | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | N | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | RIDGE RD |  | E.LINCOLNW | DRIVER INATTENTION | NO APPARENT VIOL |
| 10 | STARTING IN TRAFFIC | N | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | RIDGE RD |  | E.LINCOLNW | DRIVER INATTENTION | NO APPARENT VIOL |
| UK | SLOWING | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | RIDGE RD |  | E.LINCOLNW | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| 5 | STARTING IN TRAFFIC | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | RIDGE RD |  | E.LINCOLNW | PSGR DISTRACTN | NO APPARENT VIOL |




| date | time | severity | serial | road_desc | vehicles | condition | lighting | weather | ramp | acctype | dir_1 | vehicle_1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4/26/2005 | 1443 | INJ | 200506479 | INTERSECTION RELATED | 1 | DRY | DAYLIGHT | NONE | N | PEDESTRIAN (ALL OTHER) | N | PASS CAR/VAN |
| 11/16/2004 | 2310 | PDO | 200417694 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | N | PASS CAR/VAN |
| 5/25/2006 | 1605 | PDO | 200608197 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | S | PICKUP TRUCK/UTILITY VAN |
| 10/28/2002 | 0724 | INJ | 200216841 | INTERSECTION RELATED | 3 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PICKUP TRUCK/UTILITY VAN |
| 4/10/2003 | 1728 | PDO | 200305467 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | W | PASS CAR/VAN |
| 3/1/2002 | 1329 | PDO | 200203191 | INTERSECTION RELATED | 2 | SLUSHY | DAYLIGHT | NONE | N | SIDESWIPE OPPOSITE DIRECTION | E | PICKUP TRUCK/UTILITY VAN |
| 12/8/2003 | 1214 | PDO | 200319629 | INTERSECTION RELATED | 2 | SNOWY | DAYLIGHT | SNOW/SLEET/HAIL | N | SIDESWIPE OPPOSITE DIRECTION | E | PASS CAR/VAN |
| 1/4/2005 | 1157 | PDO | 200500246 | INTERSECTION RELATED | 2 | ICY | DAYLIGHT | SNOW/SLEET/HAIL | N | SIDESWIPE OPPOSITE DIRECTION | E | PICKUP TRUCK/UTILITY VAN |
| 9/18/2002 | 1447 | PDO | 200214688 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 11/1/2002 | 1419 | PDO | 200217399 | AT INTERSECTION | 3 | SNOWY | DAYLIGHT | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 12/6/2002 | 1352 | PDO | 200219851 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 6/22/2003 | 1224 | INJ | 200309022 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PICKUP TRUCK/UTILITY VAN |
| 8/11/2003 | 1400 | PDO | 200312112 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 11/4/2003 | 1145 | PDO | 200317219 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PICKUP TRUCK/UTILITY VAN |
| 3/12/2004 | 0915 | INJ | 200404104 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 4/9/2004 | 1533 | PDO | 200405562 | AT INTERSECTION | 2 | WET | DAYLIGHT | SNOW/SLEET/HAIL | N | APPROACH TURN | W | PASS CAR/VAN |
| 8/17/2004 | 1215 | INJ | 200411889 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PICKUP TRUCK/UTILITY VAN |
| 11/30/2004 | 1652 | PDO | 200418702 | AT INTERSECTION | 2 | ICY | DAWN OR DUSK | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 12/3/2004 | 1602 | PDO | 200419160 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 5/3/2005 | 1610 | PDO | 200506791 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | E | PICKUP TRUCK/UTILITY VAN |
| 10/4/2005 | 1634 | PDO | 200515850 | AT INTERSECTION | 2 | WET | DAYLIGHT | RAIN | N | APPROACH TURN | W | PASS CAR/VAN |
| 8/10/2006 | 1601 | INJ | 200612945 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PASS CAR/VAN |
| 2/8/2002 | 2137 | PDO | 200201998 | INTERSECTION RELATED | 1 | SNOWY | DARK-LIGHTED | SNOW/SLEET/HAIL | N | LIGHT/UTILITY POLE | E | PICKUP TRUCK/UTILITY VAN |
| 1/31/2004 | 1503 | PDO | 200401535 | INTERSECTION RELATED | 3 | WET | DAYLIGHT | NONE | N | REAR-END | W | PASS CAR/VAN |
| 12/8/2005 | 1233 | PDO | 200519383 | INTERSECTION RELATED | 3 | WET | DAYLIGHT | NONE | N | REAR-END | W | PASS CAR/VAN |
| 1/27/2006 | 0941 | PDO | 200601525 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | W | PASS CAR/VAN |
| 6/27/2006 | 2206 | PDO | 200610525 | INTERSECTION RELATED | 2 | DRY | DARK-LIGHTED | NONE | N | REAR-END | W | PASS CAR/VAN |
| 5/17/2007 | 1540 | INJ | 200707985 | INTERSECTION RELATED | 3 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PASS CAR/VAN |
| 5/22/2007 | 1613 | PDO | 200708605 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PASS CAR/VAN |
| 11/1/2007 | 2008 | PDO | 200719266 | INTERSECTION RELATED |  | DRY | DARK-LIGHTED | NONE | N | REAR-END | W | PASS CAR/VAN |



| -Contributing Factor | Veh 1 - Veh 2 - Veh 3 |  |  | Direction |  | - Veh 3 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No Apparent Contributing Factor: | 0 | 0 | 0 | North: | 0 | 0 | 0 |
| Asleep at the Wheel: | 0 | 0 | 0 | Northeast: | 0 | 0 | 0 |
| Illness: | 0 | 0 | 0 | East: | 8 | 9 | 0 |
| Distracted by Passenger: | 0 | 0 | 0 | Southeast: | 1 | 1 | 0 |
| Driver Inexperience: | 0 | 0 | 0 | South: | 24 | 33 | 0 |
| Driver Fatigue: | 0 | 0 | 0 | Southwest: | 0 | 0 | 0 |
| Driver Preoccupied: | 0 | 0 | 0 | West: | 20 | 8 | 0 |
| Driver Unfamilar with Area: | 0 | 0 | 0 | Northwest: | 0 | 0 | 0 |
| Driver Emotionally Upset: | 0 | 0 | 0 | Unknown: | 0 | 0 | 10 |
| Evading Law Enforcement Officier: | 0 | 0 | 0 | Total: | 53 | 51 | 10 |
| Physical Disability: | 0 | 0 | 0 | Totar: | 53 | 51 | 10 |
| Unknown: | 53 | 51 | 10 |  |  |  |  |
| Total: | 53 | 51 | 10 |  |  |  |  |
| Condition of Driver | 1 | 2 |  |  |  |  |  |
| No Impairment Suspected: | 0 | 0 | 0 |  |  |  |  |
| Alcohol Involved: | 0 | 0 | 0 |  |  |  |  |
| RX Drugs or Medication Involved: | 0 | 0 | 0 |  |  |  |  |
| Illegal Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Alcohol and Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Driver/Pedestrian not Observed: | 0 | 0 | 0 |  |  |  |  |
| Unknown: | 53 | 51 | 10 |  |  |  |  |
| Total: | 53 | 51 | 10 |  |  |  |  |



| Location: Accident History for CENTRAL AVE and PERSHING |  |  |  | From:01/01/2002 To:12/31/2007 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - Vehicle Type | Veh 1 _ Veh 2 __ Veh 3 _ Vehicle Movement |  |  |  | 1 |  | 3 |
| Passenger Car/Van: | 43 | 41 | 0 | Going Straight: | 36 | 40 | 0 |
| Passenger Car/Van w/Trl: | 0 | 0 | 0 | Slowing: | 4 | 0 | 0 |
| Pickup Truck/Utility Van: | 8 | 8 | 0 | Stopped in Traffic: | 2 | 9 | 0 |
| Pickup Truck/Utility Van w/Trl: | 0 | 0 | 0 | Making Right Turn: | 0 | 0 | 0 |
| Truck 10k lbs or Less: | 0 | 0 | 0 | Making Left Turn: | 10 | 1 | 0 |
| Trucks > 10k lbs/Bus > 15 People: | 0 | 1 | 0 | Making U-Turn: | 0 | 0 | 0 |
| School Bus < 15 People: | 0 | 0 | 0 | Passing: | 0 | 0 | 0 |
| Non School Bus < 15 People: | 0 | 0 | 0 | Backing: | 0 | 0 | 0 |
| Motorhome: | 0 | 0 | 0 | Enter/Leave Parked Position: | 0 | 0 | 0 |
| Motorcycle: | 0 | 0 | 0 | Starting in Traffic: | 1 | 1 | 0 |
| Bicycle: | 1 | 0 | 0 | Parked: | 0 | 0 | 0 |
| Motorized Bicycle: | 0 | 0 | 0 | Changing Lanes: | 0 | 0 | 0 |
| Farm Equipment: | 0 | 0 | 0 | Avoiding Object in Road: | 0 | 0 | 0 |
| Hit and Run - Unknown: | 0 | 0 | 0 | Weaving: | 0 | 0 | 0 |
| Other: | 0 | 0 | 0 | Other: | 0 | 0 | 0 |
| Unknown: | 1 | 1 | 10 | Unknown: | 0 | 0 | 10 |
| Total: | 53 | 51 | 10 | Total: | 53 | 51 | 10 |


| date | time | severity | serial | road_desc | vehicles | condition | lighting | weather | ramp | acctype | dir_1 | vehicle_1 | speed_1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1/18/2002 | 2141 | PDO | 200200780 | AT INTERSECTION |  | DRY | DARK-UNLIGHTED | NONE | N | BROADSIDE | W | PASS CAR/VAN | UK |
| 2/16/2002 | 0648 | PDO | 200202348 | AT INTERSECTION |  | DRY | DAWN OR DUSK | NONE | N | BROADSIDE | S | PASS CAR/VAN | 30 |
| 8/14/2002 | 1126 | PDO | 200212668 | AT INTERSECTION |  | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PASS CAR/VAN | 30 |
| 8/21/2002 | 1015 | PDO | 200213018 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | S | PASS CAR/VAN | 10 |
| 10/8/2002 | 0933 | PDO | 200215961 | AT INTERSECTION | 3 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PICKUP TRUCK/UTILITY VAN | UK |
| 2/28/2003 | 0707 | INJ | 200303305 | AT INTERSECTION | 2 | SNOWY | DAYLIGHT | NONE | N | BROADSIDE | E | PASS CAR/VAN | 5 |
| 3/18/2003 | 2003 | PDO | 200304162 | AT INTERSECTION |  | ICY | DARK-LIGHTED | SNOW/SLEET/HAIL | N | BROADSIDE | E | PASS CAR/VAN | 20 |
| 4/19/2003 | 0702 | PDO | 200306003 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PASS CAR/VAN | 35 |
| 10/4/2003 | 1547 | INJ | 200315203 | AT INTERSECTION | 3 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PASS CAR/VAN | 20 |
| 12/22/2003 | 0550 | PDO | 200320680 | AT INTERSECTION | 2 | SNOWY | DARK-LIGHTED | NONE | N | BROADSIDE | S | PASS CAR/VAN | 25 |
| 7/17/2004 | 0735 | PDO | 200410590 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | S | PASS CAR/VAN | 25 |
| 10/19/2004 | 1431 | PDO | 200415832 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | S | PASS CAR/VAN | 30 |
| 1/11/2005 | 1003 | PDO | 200500533 | AT INTERSECTION | 2 | WET | DAYLIGHT | FOG | N | BROADSIDE | E | PICKUP TRUCK/UTILITY VAN | 30 |
| 3/25/2005 | 1210 | INJ | 200504725 | AT INTERSECTION | 3 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PASS CAR/VAN | 35 |
| 5/24/2005 | 0814 | PDO | 200507954 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PASS CAR/VAN | 30 |
| 9/4/2005 | 2306 | PDO | 200514164 | AT INTERSECTION | 2 | DRY | DARK-UNLIGHTED | NONE | N | BROADSIDE | S | PASS CAR/VAN | 20 |
| 9/13/2005 | 1415 | INJ | 200514461 | AT INTERSECTION | 3 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PASS CAR/VAN | UK |
| 1/4/2006 | 0545 | PDO | 200600074 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | S | PASS CAR/VAN | 10 |
| 2/15/2006 | 1643 | PDO | 200602780 | AT INTERSECTION | 2 | SNOWY | DAYLIGHT | SNOW/SLEET/HAIL | N | BROADSIDE | E | PASS CAR/VAN | 20 |
| 3/27/2006 | 0757 | PDO | 200605723 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PASS CAR/VAN | 35 |
| 6/23/2006 | 0954 | PDO | 200610135 | AT INTERSECTION |  | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PASS CAR/VAN | 25 |
| 7/29/2006 | 1239 | PDO | 200612377 | AT INTERSECTION |  | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PASS CAR/VAN | 30 |
| 9/16/2006 | 1748 | PDO | 200614969 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PICKUP TRUCK/UTILITY VAN | 35 |
| 11/9/2006 | 1542 | PDO | 200619126 | AT INTERSECTION |  | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PICKUP TRUCK/UTILITY VAN | 30 |
| 5/4/2007 | 0705 | PDO | 200707303 | AT INTERSECTION |  | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PASS CAR/VAN | 30 |
| 11/4/2007 | 2016 | PDO | 200719279 | AT INTERSECTION |  | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | W | PASS CAR/VAN | 20 |
| 11/29/2007 | 2053 | PDO | 200720770 | AT INTERSECTION |  | DRY | DARK-UNLIGHTED | NONE | N | BROADSIDE | W | PASS CAR/VAN | 30 |
| 12/2/2007 | 2350 | INJ | 200721024 | AT INTERSECTION |  | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | S | PASS CAR/VAN | 30 |
| 12/8/2007 | 1330 | INJ | 200722028 | AT INTERSECTION | 2 | SNOWY | DAYLIGHT | SNOW/SLEET/HAIL | N | BROADSIDE | W | PASS CAR/VAN | 5 |
| 12/30/2007 | 1423 | PDO | 200723873 | AT INTERSECTION | 3 | ICY | DAYLIGHT | SNOW/SLEET/HAIL | N | BROADSIDE | S | PASS CAR/VAN | 20 |
| 3/22/2002 | 1228 | PDO | 200204688 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | S | PASS CAR/VAN | 5 |
| 4/7/2003 | 1707 | PDO | 200305344 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | S | PICKUP TRUCK/UTILITY VAN | 10 |
| 5/6/2005 | 1340 | PDO | 200506817 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | S | PASS CAR/VAN | 10 |
| 5/16/2005 | 1602 | PDO | 200507465 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | S | PASS CAR/VAN | 20 |
| 5/26/2005 | 0739 | PDO | 200507684 | INTERSECTION RELATED | 3 | DRY | DAYLIGHT | NONE | N | REAR-END | S | PASS CAR/VAN | 25 |
| 1/31/2006 | 1409 | PDO | 200601624 | INTERSECTION RELATED | 5 | DRY | DAYLIGHT | NONE | N | REAR-END | S | PASS CAR/VAN | 20 |
| 10/3/2006 | 1900 | INJ | 200616228 | INTERSECTION RELATED | 2 | DRY | DAWN OR DUSK | NONE | N | REAR-END | S | PASS CAR/VAN | 0 |
| 1/2/2007 | 1110 | PDO | 200700177 | INTERSECTION RELATED |  | DRY | DAYLIGHT | NONE | N | REAR-END | S | PICKUP TRUCK/UTILITY VAN | 10 |
| 1/12/2005 | 1354 | PDO | 200501487 | INTERSECTION RELATED |  | DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | S | PASS CAR/VAN | 0 |
| 3/13/2003 | 1142 | PDO | 200304052 | AT INTERSECTION |  | DRY | DAYLIGHT | SNOW/SLEET/HAIL | N | APPROACH TURN | E | PASS CAR/VAN | 10 |
| 12/20/2005 | 0725 | PDO | 200520528 | AT INTERSECTION |  | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PASS CAR/VAN | 15 |
| 4/11/2006 | 1711 | PDO | 200606657 | AT INTERSECTION |  | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PASS CAR/VAN | 10 |
| 5/19/2006 | 1531 | PDO | 200608580 | AT INTERSECTION |  | DRY | DAYLIGHT | NONE | N | APPROACH TURN | W | PICKUP TRUCK/UTILITY VAN | 10 |
| 10/15/2002 | 1249 | PDO | 200216069 | AT INTERSECTION |  | DRY | DAYLIGHT | NONE | N | OVERTAKING TURN | S | PASS CAR/VAN | 25 |
| 10/3/2003 | 1325 | PDO | 200315196 | AT INTERSECTION |  | DRY | DAYLIGHT | NONE | N | OVERTAKING TURN | S | PASS CAR/VAN | 15 |
| 11/26/2005 | 2129 | PDO | 200518389 | AT INTERSECTION |  | DRY | DARK-LIGHTED | NONE | N | OVERTAKING TURN | S | PASS CAR/VAN | 30 |
| 6/22/2007 | 1905 | PDO | 200710399 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | OVERTAKING TURN | SE | PICKUP TRUCK/UTILITY VAN | UK |
| 7/16/2006 | 2013 | INJ | 200611305 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BICYCLE | S | BICYCLE | UK |
| 2/25/2002 | 0638 | PDO | 200202773 | INTERSECTION RELATED | 1 | ICY | DAWN OR DUSK | SNOW/SLEET/HAIL | N | CURB/RAISED MEDIAN | S | PASS CAR/VAN | 20 |
| 4/13/2004 | 2000 | INJ | 200405637 | INTERSECTION RELATED | 1 | DRY | DARK-LIGHTED | NONE | N | PEDESTRIAN (ALL OTHER) | S | PASS CAR/VAN | 7 |
| 9/5/2002 | 1352 | INJ | 200213865 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | W | PASS CAR/VAN | 10 |
| 11/11/2002 | 1605 | PDO | 200218075 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | W | PASS CAR/VAN | 30 |
| 11/4/2006 | 1800 | PDO | 200618227 | INTERSECTION RELATED |  | DRY | DARK-LIGHTED | NONE | N | REAR-END | E | UNKNOWN | UK |


| veh_move_1 | dir_2 | vehicle_2 | speed_2 | veh_move_2 | loc_01 | link | loc_02 | violcode_1 | violcode_2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GOING STRAIGHT | S | PASS CAR/VAN | 30 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | 30 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CAR/VAN | 28 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PASS CAR/VAN | 10 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | TURNING IMPROP | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CAR/VAN | 20 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CAR/VAN | 10 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| SLOWING | S | PICKUP TRUCK/UTILITY VAN | UK | GOING STRAIGHT | CENTRAL AV |  | PERSHING | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CAR/VAN | 30 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CAR/VAN | 30 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | 20 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| GOING STRAIGHT | E | PASS CAR/VAN | 30 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | NO APPARENT VIOL | TRAF CNTRL DISREG |
| GOING STRAIGHT | E | PASS CAR/VAN | 30 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CAR/VAN | 30 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CAR/VAN | 20 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CAR/VAN | 10 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| GOING STRAIGHT | W | PASS CAR/VAN | 35 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | PSGR DISTRACTN | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CAR/VAN | 5 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | 30 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CAR/VAN | UK | GOING STRAIGHT | CENTRAL AV |  | PERSHING | NO APPARENT VIOL | UNSAFE SPD FOR COND |
| GOING STRAIGHT | S | PASS CAR/VAN | 25 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CAR/VAN | 30 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CAR/VAN | 30 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CAR/VAN | 30 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | NONE | ALCOHOL INVOLV |
| GOING STRAIGHT | S | PICKUP TRUCK/UTILITY VAN | 30 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CAR/VAN | 30 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CAR/VAN | 2 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CAR/VAN | 30 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| GOING STRAIGHT | W | TRUCK GVW > 10K/BUSSES > 15 PEOPLE | 30 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CAR/VAN | 20 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| SLOWING | E | PASS CAR/VAN | 5 | STARTING IN TRAFFIC | CENTRAL AV |  | PERSHING | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| SLOWING | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | PERSHING | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | PERSHING | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | PERSHING | DRIVER INATTENTION | NO APPARENT VIOL |
| STARTING IN TRAFFIC | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | PERSHING | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | S | PICKUP TRUCK/UTILITY VAN | 5 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | S | PASS CAR/VAN | 25 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | NONE | NONE |
| STOPPED IN TRAFFIC | S | UNKNOWN | 10 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | NONE | NONE |
| GOING STRAIGHT | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | PERSHING | PSGR DISTRACTN | NO APPARENT VIOL |
| STOPPED IN TRAFFIC | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | CENTRAL AV |  | PERSHING | NO APPARENT VIOL | NO APPARENT VIOL |
| MAKING LEFT TURN | W | PASS CAR/VAN | 30 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | DRIVER INATTENTION | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PASS CAR/VAN | 30 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | DRIVER INATTENTION | NO APPARENT VIOL |
| MAKING LEFT TURN | E | PASS CAR/VAN | 20 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | NONE | TRAF CNTRL DISREG |
| MAKING LEFT TURN | E | PASS CAR/VAN | 35 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | TURNING IMPROP | NO APPARENT VIOL |
| MAKING LEFT TURN | S | PASS CAR/VAN | 25 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | TURNING IMPROP | NO APPARENT VIOL |
| MAKING LEFT TURN | S | PASS CAR/VAN | 30 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | DRIVER INATTENTION | NO APPARENT VIOL |
| MAKING LEFT TURN | S | PASS CAR/VAN | 30 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | TURNING IMPROP | NO APPARENT VIOL |
| MAKING LEFT TURN | SE | PASS CAR/VAN | 15 | MAKING LEFT TURN | CENTRAL AV |  | PERSHING | TURNING IMPROP | NO APPARENT VIOL |
| GOING STRAIGHT | E | PICKUP TRUCK/UTILITY VAN | 25 | GOING STRAIGHT | CENTRAL AV |  | PERSHING | TRAF CNTRL DISREG | NO APPARENT VIOL |
| GOING STRAIGHT |  |  |  |  | CENTRAL AV |  | PERSHING | UNSAFE SPD FOR COND | NONE |
| MAKING LEFT TURN |  |  |  |  | PERSHING |  | CENTRAL AV | NONE | NONE |
| GOING STRAIGHT | W | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | PERSHING |  | CENTRAL AV | DRIVER INATTENTION | NO APPARENT VIOL |
| SLOWING | W | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | PERSHING |  | CENTRAL AV | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | E | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | PERSHING |  | CENTRAL AV | UNKNOWN | NO APPARENT VIOL |





| speed_1 | veh_move_1 | dir_2 | vehicle_2 | speed_2 | veh_move_2 | loc_01 | link | loc_02 | violcode_1 | violcode_2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5 | GOING STRAIGHT | W | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | 20TH ST |  | LOGAN AVE | NONE | NO APPARENT VIOL |
| 0 | STOPPED IN TRAFFIC | W | PICKUP TRUCK/UTILITY VAN | 4 | SLOWING | 20TH ST |  | LOGAN AVE | NONE | NONE |
| 5 | OTHER | W | PASS CAR/VAN | 0 | PARKED | 20TH ST |  | LOGAN AVE | NO DRIVER | NO DRIVER |
| 30 | GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | 30 | GOING STRAIGHT | LOGAN AVE |  | 20TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 25 | GOING STRAIGHT | W | PASS CAR/VAN | 5 | STARTING IN TRAFFIC | LOGAN AVE |  | 20TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | N | PASS CAR/VAN | 18 | GOING STRAIGHT | LOGAN AVE |  | 20TH ST | DRIVER INATTENTION | NO APPARENT VIOL |
| 25 | GOING STRAIGHT | N | PICKUP TRUCK/UTILITY VAN | 30 | GOING STRAIGHT | LOGAN AVE |  | 20TH ST | NO APPARENT VIOL | TRAF CNTRL DISREG |
| 15 | GOING STRAIGHT | W | PASS CAR/VAN | 30 | GOING STRAIGHT | LOGAN AVE |  | 20TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | W | PASS CAR/VAN | 30 | GOING STRAIGHT | LOGAN AVE |  | 20TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | W | PASS CAR/VAN | 30 | GOING STRAIGHT | LOGAN AVE |  | 20TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 25 | GOING STRAIGHT | W | PASS CAR/VAN | 30 | GOING STRAIGHT | LOGAN AVE |  | 20TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| UK | GOING STRAIGHT | E | PASS CAR/VAN | 10 | GOING STRAIGHT | LOGAN AVE |  | 20TH ST | TRAF CNTRL DISREG | ALCOHOL INVOLV |
| 15 | GOING STRAIGHT | N | PASS CAR/VAN | 5 | GOING STRAIGHT | LOGAN AVE |  | 20TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | W | PASS CAR/VAN | 5 | STARTING IN TRAFFIC | LOGAN AVE |  | 20TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 25 | GOING STRAIGHT | W | PASS CAR/VAN | 30 | GOING STRAIGHT | LOGAN AVE |  | 20TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | W | PASS CAR/VAN | UK | GOING STRAIGHT | LOGAN AVE |  | 20TH ST | NONE | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | W | PASS CAR/VAN | 10 | GOING STRAIGHT | LOGAN AVE |  | 20TH ST | DRIVER INATTENTION | DRIVER INATTENTION |
| 30 | GOING STRAIGHT | W | PASS CAR/VAN | 20 | GOING STRAIGHT | LOGAN AVE |  | 20TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | 15 | GOING STRAIGHT | LOGAN AVE |  | 20TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 5 | BACKING | S | PASS CAR/VAN | 0 | PARKED | LOGAN AVE |  | 20TH ST | DRIVER INEXPERIENCE | NO DRIVER |
| 5 | MAKING LEFT TURN | S | PASS CAR/VAN | 30 | GOING STRAIGHT | LOGAN AVE |  | 20TH ST | NONE | NO APPARENT VIOL |
| 10 | MAKING LEFT TURN | SE | PASS CAR/VAN | 30 | GOING STRAIGHT | LOGAN AVE |  | 20TH ST | NONE | NO APPARENT VIOL |
| 5 | MAKING LEFT TURN | S | PASS CAR/VAN | 28 | GOING STRAIGHT | LOGAN AVE |  | 20TH ST | NONE | NO APPARENT VIOL |
| 5 | MAKING LEFT TURN | S | PASS CAR/VAN | 30 | GOING STRAIGHT | LOGAN AVE |  | 20TH ST | NONE | NO APPARENT VIOL |



| Contributing Factor |  |  | 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No Apparent Contributing Factor: | 0 | 0 | 0 | North: | 3 | 1 | 0 |
| Asleep at the Wheel: | 0 | 0 | 0 | Northeast: | 0 | 1 | 0 |
| Illness: | 0 | 0 | 0 | East: | 1 | 2 | 0 |
| Distracted by Passenger: | 0 | 0 | 0 | Southeast: | 2 | 0 | 0 |
| Driver Inexperience: | 0 | 0 | 0 | South: | 8 | 2 | 0 |
| Driver Fatigue: | 0 | 0 | 0 | Southwest: | 0 | 2 | 0 |
| Driver Preoccupied: | 0 | 0 | 0 | West: | 1 | 7 | 0 |
| Driver Unfamilar with Area: | 0 | 0 | 0 | Northwest: | 0 | 0 | 0 |
| Driver Emotionally Upset: | 0 | 0 | 0 | Unknown: | 0 | 0 | 0 |
| Evading Law Enforcement Officier: | 0 | 0 | 0 | Total: | 15 | 15 | 0 |
| Physical Disability: | 0 | 0 | 0 | Total. | 15 | 15 | 0 |
| Unknown: | 15 | 15 | 0 |  |  |  |  |
| Total: | 15 | 15 | 0 |  |  |  |  |
| - Condition of Driver | 1 | 2 |  |  |  |  |  |
| No Impairment Suspected: | 0 | 0 | 0 |  |  |  |  |
| Alcohol Involved: | 0 | 0 | 0 |  |  |  |  |
| RX Drugs or Medication Involved: | 0 | 0 | 0 |  |  |  |  |
| Illegal Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Alcohol and Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Driver/Pedestrian not Observed: | 0 | 0 | 0 |  |  |  |  |
| Unknown: | 15 | 15 | 0 |  |  |  |  |
| Total: | 15 | 15 | 0 |  |  |  |  |


| Contributing Factor | Veh 1 _ Veh 2 _ Veh 3 - Direction |  |  |  | Veh 1 - Veh 2 - Veh 3 - |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No Apparent Contributing Factor: | 0 | 0 | 0 | North: | 3 | 1 | 0 |
| Asleep at the Wheel: | 0 | 0 | 0 | Northeast: | 0 | 1 | 0 |
| Illness: | 0 | 0 | 0 | East: | 1 | 2 | 0 |
| Distracted by Passenger: | 0 | 0 | 0 | Southeast: | 2 | 0 | 0 |
| Driver Inexperience: | 0 | 0 | 0 | South: | 8 | 2 | 0 |
| Driver Fatigue: | 0 | 0 | 0 | Southwest: | 0 | 2 | 0 |
| Driver Preoccupied: | 0 | 0 | 0 | West: | 1 | 7 | 0 |
| Driver Unfamilar with Area: | 0 | 0 | 0 | Northwest: | 0 | 0 | 0 |
| Driver Emotionally Upset: | 0 | 0 | 0 | Unknown: | 0 | 0 | 0 |
| Evading Law Enforcement Officier: | 0 | 0 | 0 | Total: | 15 | 15 | 0 |
| Physical Disability: | 0 | 0 | 0 | Total: | 15 | 15 | 0 |
| Unknown: | 15 | 15 | 0 |  |  |  |  |
| Total: | 15 | 15 | 0 |  |  |  |  |
| Condition of Driver | 1 | 2 | 3 |  |  |  |  |
| No Impairment Suspected: | 0 | 0 | 0 |  |  |  |  |
| Alcohol Involved: | 0 | 0 | 0 |  |  |  |  |
| RX Drugs or Medication Involved: | 0 | 0 | 0 |  |  |  |  |
| Illegal Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Alcohol and Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Driver/Pedestrian not Observed: | 0 | 0 | 0 |  |  |  |  |
| Unknown: | 15 | 15 | 0 |  |  |  |  |
| Total: | 15 | 15 | 0 |  |  |  |  |


| Location: Accident History for HENDERSON and OMAHA RD |  |  |  | From:01/01/2002 To:12/31/2007 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| icle |  |  |  |  |  |  |  |
| Passenger Car/Van: | 15 | 10 | 0 | Going Straight: | 12 | 14 | 0 |
| Passenger Car/Van w/Trl: | 0 | 0 | 0 | Slowing: | 2 | 1 | 0 |
| Pickup Truck/Utility Van: | 0 | 5 | 0 | Stopped in Traffic: | 0 | 0 | 0 |
| Pickup Truck/Utility Van w/Trl: | 0 | 0 | 0 | Making Right Turn: | 0 | 0 | 0 |
| Truck 10k lbs or Less: | 0 | 0 | 0 | Making Left Turn: | 0 | 0 | 0 |
| Trucks > 10k lbs/Bus > 15 People: | 0 | 0 | 0 | Making U-Turn: | 0 | 0 | 0 |
| School Bus < 15 People: | 0 | 0 | 0 | Passing: | 0 | 0 | 0 |
| Non School Bus < 15 People: | 0 | 0 | 0 | Backing: | 0 | 0 | 0 |
| Motorhome: | 0 | 0 | 0 | Enter/Leave Parked Position: | 0 | 0 | 0 |
| Motorcycle: | 0 | 0 | 0 | Starting in Traffic: | 1 | 0 | 0 |
| Bicycle: | 0 | 0 | 0 | Parked: | 0 | 0 | 0 |
| Motorized Bicycle: | 0 | 0 | 0 | Changing Lanes: | 0 | 0 | 0 |
| Farm Equipment: | 0 | 0 | 0 | Avoiding Object in Road: | 0 | 0 | 0 |
| Hit and Run - Unknown: | 0 | 0 | 0 | Weaving: | 0 | 0 | 0 |
| Other: | 0 | 0 | 0 | Other: | 0 | 0 | 0 |
| Unknown: | 0 | 0 | 0 | Unknown: | 0 | 0 | 0 |
| Total: | 15 | 15 | 0 | Total: | 15 | 15 | 0 |



| veh move＿1 | dir＿2 | vehicle 2 | speed 2 | veh move 2 | loc 01 | link | loc 02 | violcode＿1 | violcode＿2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SLOWING | S | PASS CAR／VAN | 5 | SLOWING | HENDERSON |  | OMAHA RD | NONE | ONE |
| GOING STRAIGHT | w | PICKUP TRUCKIU | 30 | GOING STRAIGHT | OMAHARD |  | HENDERSON | TRAF CNTRL DISREG | ALCOHOL INVOLV |
| GOING STRAIGHT | w | PASS CAR／VAN | 30 | GOING STRAIGHT | OMAHARD |  | HENDERSON | TRAF CNTRL DISREG | NO APPARENT VIOL |
| STARTING IN TRAFFIC | w | PASS CAR／VAN | 30 | GOING STRAIGHT | OMAHARD |  | HENDERSON | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | NE | PICKUP TRUCK／UTILITY VAN | 30 | GOING STRAIGHT | OMAHARD |  | HENDERSON | NO APPARENT VIOL | TRAF CNTRL DISREG |
| GOING STRAIGHT | w | PASS CAR／VAN | 30 | GOING STRAIGHT | OMAHARD |  | HENDERSON | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | N | ASS CAR／VAN | 30 | GOING STRAIGHT | OMAH |  | ENDERSON | NO APPARENT | LCOHOL INV |
| GOING STRAIGHT | w | PASS CAR／VAN | 30 | GOING STRAIGHT | OMAHARD |  | HENDERSON | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | w | PASS CAR／VAN | 35 | GOING STRAIGHT | OMAHARD |  | HENDERSON | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | sw | PICKUP TRUCK／UTILITY VAN | 20 | GOING STRAIGHT | OMAHA RD |  | HENDERSON | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | E | PASS CARIVAN | 30 | GOING STRAIGHT | OMAHA RD |  | HENDERSON | TRAF CNTRL DISREG | NO APPARENT VIOL |
| SLOWING | SW | PICKUP TRUCKIUTILITY VA | 30 | GOING STRAIGHT | OMAHA RD |  | HENDERSON | UNSAFE SPD FOR CON | NO APPARENT VIOL |
| GOING STRAIGHT | E | PASS CAR／VAN | 30 | GOING STRAIGHT | OMAHA RD |  | HENDERSON | NONE | NO APPARENT VIOL |
| GOING STRAIGHT | w | PASS CAR／VAN | 30 | GOING STRAIGHT | OMAHARD |  | HENDERSON | DRIVER INATTENTION | NO APPARENT VIOL |
| GOING STRAIGHT | S | PICKUP TRUCK／UTILITY VAN | 25 | GOING STRAIGHT | OMAHA RD |  | HENDERSON | TRAF CNTRL DISREG | NO APPARENT VIOL |




| date | time | severity | serial | road desc | vehicles | condition | lighting | weather | ramp | acctype | dir_1 | vehicle_1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7/1/2005 | 0649 | PDO | 200510498 | INTERSECTION RELATED |  | DRY | DAYLIGHT | NONE | N | OTHER NON-COLLISION | N | TRUCK GVW > 10K/BUSSES > 15 PEOPLE |
| 8/25/2007 | 2115 | INJ | 200714612 | INTERSECTION RELATED | 1 | UNKNOWN | DARK-LIGHTED | NONE | N | OTHER NON-COLLISION | SW | MOTORCYCLE |
| 12/27/2005 | 1714 | INJ | 200521166 | INTERSECTION RELATED | 1 | DRY | DARK-LIGHTED | NONE | N | PEDESTRIAN (ALL OTHER) | SE | TRUCK GVW > 10K/BUSSES > 15 PEOPLE |
| 2/21/2002 | 1930 | PDO | 200202789 | AT INTERSECTION | 2 | ICY | DARK-LIGHTED | NONE | N | BROADSIDE | W | PASS CAR/VAN |
| 4/28/2002 | 0030 | INJ | 200206485 | INTERSECTION RELATED | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | N | PASS CARNAN |
| 7/13/2002 | 1345 | PDO | 200210652 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PICKUP TRUCK/UTILITY VAN |
| 12/11/2003 | 1530 | INJ | 200320234 | AT INTERSECTION | 2 | WET | DAYLIGHT | NONE | N | BROADSIDE | w | PASS CAR/VAN |
| 6/20/2004 | 1302 | PDO | 200409258 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PASS CAR/VAN |
| 5/22/2005 | 1310 | INJ | 200507601 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PICKUP TRUCK/UTILITY VAN |
| 6/13/2005 | 2032 | PDO | 200508867 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | S | PASS CAR/VAN |
| 7/22/2005 | 1532 | PDO | 200511104 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PASS CAR/VAN |
| 8/15/2005 | 1250 | PDO | 200512177 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | S | PASS CAR/VAN |
| 12/6/2005 | 1445 | PDO | 200519361 | AT INTERSECTION | 2 | ICY | DAYLIGHT | SNOW/SLEET/HAIL | N | BROADSIDE | E | PASS CAR/VAN |
| 3/19/2006 | 1826 | PDO | 200605031 | AT INTERSECTION | 2 | SNOWY | DARK-LIGHTED | SNOW/SLEET/HAIL | N | BROADSIDE | N | PICKUP TRUCK/UTILITY VAN |
| 6/15/2006 | 1214 | PDO | 200609726 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | w | PICKUP TRUCK/UTILITY VAN |
| 8/28/2006 | 2020 | INJ | 200614209 | AT INTERSECTION |  | DRY | DAWN OR DUSK | NONE | N | BROADSIDE | N | PICKUP TRUCK/UTILITY VAN |
| 12/12/2006 | 1055 | PDO | 200622013 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PICKUP TRUCK/UTILITY VAN |
| 1/31/2007 | 1030 | PDO | 200702451 | AT INTERSECTION | 2 | WET | DAYLIGHT | SNOW/SLEET/HAIL | N | BROADSIDE | W | PASS CAR/VAN |
| 3/6/2007 | 1605 | INJ | 200704513 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PASS CAR/VAN |
| 5/16/2007 | 1512 | PDO | 200707966 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PASS CAR/VAN |
| 10/31/2007 | 1400 | PDO | 200719247 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | w | PASS CAR/VAN |
| 12/3/2007 | 0542 | INJ | 200720733 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | E | PASS CARNAN |
| 12/5/2007 | 0935 | PDO | 200721272 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | TRUCK GVW <= 10K LBS |
| 5/2/2003 | 1405 | PDO | 200306635 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | HEAD-ON | N | PASS CARNAN |
| 12/26/2007 | 1230 | PDO | 200723849 | AT INTERSECTION | 2 | ICY | DAYLIGHT | NONE | N | HEAD-ON | N | PASS CAR/VAN |
| 2/11/2002 | 1602 | PDO | 200202011 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | S | PASS CARNAN |
| 2/28/2002 | 1615 | PDO | 200204318 | INTERSECTION RELATED |  | ICY | DAYLIGHT | SNOW/SLEET/HAIL | N | REAR-END | N | PASS CAR/VAN |
| 5/23/2002 | 1510 | INJ | 200207711 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | S | PASS CARNAN |
| 5/23/2002 | 1532 | PDO | 200207712 | INTERSECTION RELATED |  | DRY | DAYLIGHT | NONE | N | REAR-END | S | PASS CARNAN |
| 3/28/2003 | 1700 | PDO | 200304719 | INTERSECTION RELATED |  | ICY | DAYLIGHT | NONE | N | REAR-END | N | PASS CARNAN |
| 3/28/2003 | 1705 | PDO | 200304720 | INTERSECTION RELATED | 2 | ICY | DAYLIGHT | NONE | N | REAR-END | N | PASS CARNAN |
| 7/2/2003 | 1251 | PDO | 200309760 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | TRUCK GVW > 10K/BUSSES > 15 PEOPLE |
| 3/5/2004 | 1205 | INJ | 200403570 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CARNAN |
| 8/6/2004 | 1237 | INJ | 200411967 | INTERSECTION RELATED | 3 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CARNAN |
| 1/14/2005 | 1148 | PDO | 200500975 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CARNAN |
| 7/15/2005 | 1505 | INJ | 200510533 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CARNAN |
| 9/21/2005 | 1720 | PDO | 200515109 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CARNAN |
| 9/23/2005 | 1735 | INJ | 200514891 | INTERSECTION RELATED |  | DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CARNAN |
| 5/12/2006 | 1601 | PDO | 200607873 | INTERSECTION RELATED |  | DRY | DAYLIGHT | NONE | N | REAR-END | S | PICKUP TRUCK/UTILITY VAN |
| 7/26/2006 | 1111 | PDO | 200612437 | INTERSECTION RELATED |  | DRY | DAYLIGHT | NONE | N | REAR-END | N | PICKUP TRUCK/UTILITY VAN |
| 11/15/2006 | 1725 | INJ | 200619226 | INTERSECTION RELATED |  | DRY | DARK-LIGHTED | NONE | N | REAR-END | S | PASS CARNAN |
| 11/29/2006 | 1304 | INJ | 200620144 | INTERSECTION RELATED |  | WET | DAYLIGHT | NONE | N | REAR-END | N | PASS CARNAN |
| 3/29/2007 | 1627 | PDO | 200705821 | INTERSECTION RELATED | 2 | ICY | DAYLIGHT | SNOW/SLEET/HAIL | N | REAR-END | N | PASS CAR/VAN |
| 4/6/2007 | 1209 | PDO | 200705982 | INTERSECTION RELATED | 2 | WET | DAYLIGHT | NONE | N | REAR-END | N | PICKUP TRUCK/UTILITY VAN |
| 8/2/2007 | 1240 | PDO | 200712425 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PICKUP TRUCK/UTILITY VAN |
| 9/27/2007 | 1304 | PDO | 200716655 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CARNAN |
| 5/20/2007 | 1117 | PDO | 200707997 | INTERSECTION RELATED | 2 | WET | DAYLIGHT | RAIN | N | SIDESWIPE SAME DIRECTION | N | PASS CAR/VAN |
| 7/25/2005 | 1630 | INJ | 200511500 | AT INTERSECTION |  | WET | DAYLIGHT | RAIN | N | APPROACH TURN | S | PASS CAR/VAN |
| 3/8/2002 | 1630 | PDO | 200203666 | INTERSECTION RELATED | 1 | ICY | DAYLIGHT | NONE | N | SIGN | W | PICKUP TRUCK/UTILITY VAN |
| 1/13/2006 | 2030 | PDO | 200601562 | INTERSECTION RELATED |  | DRY | DARK-LIGHTED | NONE | N | OTHER FIXED OBJECT | S | PASS CAR/VAN |
| 5/24/2005 | 1940 | INJ | 200507683 | INTERSECTION RELATED |  | ICY | DAYLIGHT | NONE | N | OVERTURNING | N | PASS CAR/VAN |
| 9/30/2006 | 1045 | PDO | 200616190 | INTERSECTION RELATED |  | DRY | DAYLIGHT | NONE | N | OVERTURNING | E | TRUCK GVW <= 10K LBS |
| 5/19/2003 | 1226 | PDO | 200308194 | INTERSECTION RELATED |  | DRY | DAYLIGHT | NONE | N | REAR-END | N | PICKUP TRUCK/UTILITY VAN |
| 5/30/2003 | 1710 | INJ | 200308257 | INTERSECTION RELATED | 2 | WET | DAYLIGHT | NONE | N | REAR-END | E | PASS CAR/VAN |
| 6/21/2003 | 1510 | PDO | 200309019 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | W | PASS CARNAN |
| 9/24/2003 | 1456 | PDO | 200314648 | INTERSECTION RELATED |  | DRY | DAYLIGHT | NONE | N | REAR-END | N | PICKUP TRUCK/UTILITY VAN |


| speed_1 | veh_move_1 | dir_2 | vehicle_2 | speed_2 | veh_move_2 | loc_01 | link | loc_02 | violcode_1 | violcode_2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 35 | MAKING LEFT TURN |  |  |  |  | I-180 N\&S |  | 1-80 | UNSAFE SPD FOR COND | NONE |
| 30 | MAKING RIGHT TURN |  |  |  |  | I-180 N\&S |  | 1-80 | UNSAFE SPD FOR COND | NONE |
| 10 | MAKING RIGHT TURN |  |  |  |  | I-180 N\&S |  | 1-80 | NO APPARENT VIOL | NONE |
| 10 | MAKING LEFT TURN | N | PICKUP TRUCK/UTILITY VAN | 30 | GOING STRAIGHT | I-180 N\&S |  | 1-80 | NO APPARENT VIOL | TRAF CNTRL DISREG |
| 30 | GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | 10 | MAKING LEFT TURN | I-180 N\&S |  | 1-80 | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 30 | GOING STRAIGHT | W | PASS CAR/VAN | 10 | MAKING LEFT TURN | I-180 N\&S |  | 1-80 | PSGR DISTRACTN | NO APPARENT VIOL |
| 5 | MAKING LEFT TURN | N | PICKUP TRUCK/UTILITY VAN | 20 | GOING STRAIGHT | I-180 N\&S |  | 1-80 | NONE | NONE |
| 20 | GOING STRAIGHT | W | PASS CAR/VAN | 3 | GOING STRAIGHT | I-180 N\&S |  | 1-80 | DRIVER INATTENTION | NO APPARENT VIOL |
| 40 | GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | 5 | MAKING LEFT TURN | I-180 N\&S |  | 1-80 | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 40 | GOING STRAIGHT | E | PASS CAR/VAN | 25 | MAKING LEFT TURN | I-180 N\&S |  | 1-80 | OTHER | OTHER |
| 40 | GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | 15 | MAKING LEFT TURN | I-180 N\&S |  | 1-80 | DRIVER INATTENTION | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | E | PASS CAR/VAN | 15 | MAKING LEFT TURN | I-180 N\&S |  | 1-80 | TRAF CNTRL DISREG | UNKNOWN |
| 5 | SLOWING | S | PASS CAR/VAN | 35 | GOING STRAIGHT | I-180 N\&S |  | 1-80 | PHYSICAL DISABILITY | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | 5 | MAKING RIGHT TURN | I-180 N\&S |  | 1-80 | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| 5 | MAKING LEFT TURN | S | PICKUP TRUCK/UTILITY VAN | 25 | GOING STRAIGHT | I-180 N\&S |  | 1-80 | OTHER | OTHER |
| 35 | GOING STRAIGHT | W | PASS CAR/VAN | 5 | STARTING IN TRAFFIC | I-180 N\&S |  | 1-80 | UNKNOWN | UNKNOWN |
| UK | GOING STRAIGHT | SW | PASS CAR/VAN | 5 | MAKING LEFT TURN | I-180 N\&S |  | 1-80 | DRIVER INATTENTION | NO APPARENT VIOL |
| 10 | MAKING LEFT TURN | S | PICKUP TRUCK/UTILITY VAN | 30 | GOING STRAIGHT | I-180 N\&S |  | 1-80 | DRIVER INATTENTION | DRIVER INATTENTION |
| 45 | GOING STRAIGHT | W | PASS CAR/VAN | 20 | MAKING LEFT TURN | I-180 N\&S |  | 1-80 | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | W | PASS CAR/VAN | 10 | MAKING LEFT TURN | I-180 N\&S |  | 1-80 | DRIVER INATTENTION | NO APPARENT VIOL |
| 5 | MAKING LEFT TURN | N | PASS CAR/VAN | 35 | GOING STRAIGHT | I-180 N\&S |  | 1-80 | TRAF CNTRL DISREG | TRAF CNTRL DISREG |
| 15 | MAKING LEFT TURN | N | PASS CAR/VAN | 30 | GOING STRAIGHT | I-180 N\&S |  | 1-80 | NONE | NO APPARENT VIOL |
| 1 | SLOWING | N | TRUCK GVW <= 10K LBS | 2 | GOING STRAIGHT | I-180 N\&S |  | 1-80 | NO APPARENT VIOL | NO APPARENT VIOL |
| 0 | STOPPED IN TRAFFIC | S | PICKUP TRUCK/UTILITY VAN | 5 | BACKING | I-180 N\&S |  | 1-80 | NO APPARENT VIOL | BACKING UNSAFELY |
| 30 | SLOWING | SW | PASS CAR/VAN | 5 | STARTING IN TRAFFIC | I-180 N\&S |  | 1-80 | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 0 | STOPPED IN TRAFFIC | S | PICKUP TRUCK/UTILITY VAN | 40 | GOING STRAIGHT | I-180 N\&S |  | 1-80 | DRIVER INATTENTION | NO APPARENT VIOL |
| 20 | SLOWING | N | UNKNOWN | UK | GOING STRAIGHT | I-180 N\&S |  | 1-80 | NONE | NONE |
| 10 | GOING STRAIGHT | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | I-180 N\&S |  | 1-80 | PSGR DISTRACTN | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | I-180 N\&S |  | 1-80 | NONE | NO APPARENT VIOL |
| 25 | SLOWING | N | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | I-180 N\&S |  | 1-80 | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| 15 | SLOWING | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | I-180 N\&S |  | 1-80 | UNSAFE SPD FOR COND | NO DRIVER |
| 20 | GOING STRAIGHT | N | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | I-180 N\&S |  | 1-80 | NONE | NO APPARENT VIOL |
| 5 | SLOWING | N | PASS CAR/VAN | 30 | GOING STRAIGHT | I-180 N\&S |  | 1-80 | UNKNOWN | NONE |
| 15 | GOING STRAIGHT | N | MOTORCYCLE | 0 | STOPPED IN TRAFFIC | I-180 N\&S |  | 1-80 | NONE | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | N | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | I-180 N\&S |  | 1-80 | DRIVER INATTENTION | NO APPARENT VIOL |
| 25 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | I-180 N\&S |  | 1-80 | NONE | NO APPARENT VIOL |
| 0 | STOPPED IN TRAFFIC | N | PASS CAR/VAN | 25 | GOING STRAIGHT | I-180 N\&S |  | 1-80 | NO APPARENT VIOL | DRIVER INATTENTION |
| 30 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | I-180 N\&S |  | 1-80 | DRIVER INATTENTION | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | S | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | I-180 N\&S |  | 1-80 | NONE | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | I-180 N\&S |  | 1-80 | DRIVER INATTENTION | NO APPARENT VIOL |
| 0 | STOPPED IN TRAFFIC | S | PASS CAR/VAN | 15 | SLOWING | I-180 N\&S |  | 1-80 | NONE | NONE |
| 20 | GOING STRAIGHT | N | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | I-180 N\&S |  | 1-80 | NONE | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | N | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | I-180 N\&S |  | 1-80 | NO APPARENT VIOL | UNSAFE SPD FOR COND |
| 40 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | I-180 N\&S |  | 1-80 | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| 20 | SLOWING | N | PICKUP TRUCK/UTILITY VAN | 30 | GOING STRAIGHT | I-180 N\&S |  | 1-80 | NO APPARENT VIOL | NONE |
| UK | SLOWING | N | PASS CAR/VAN | UK | GOING STRAIGHT | I-180 N\&S |  | 1-80 | NO APPARENT VIOL | NONE |
| 15 | CHANGING LANES | N | PASS CAR/VAN | 30 | GOING STRAIGHT | I-180 N\&S |  | 1-80 | TURNING IMPROP | NO APPARENT VIOL |
| 2 | MAKING LEFT TURN | N | PASS CAR/VAN | 38 | GOING STRAIGHT | I-180 N\&S |  | 1-80 | NONE | TRAF CNTRL DISREG |
| 45 | SLOWING |  |  |  |  | I-180 N\&S |  | 1-80 | UNSAFE SPD FOR COND | NONE |
| 25 | GOING STRAIGHT |  |  |  |  | I-180 N\&S |  | 1-80 | NO APPARENT VIOL | NONE |
| 15 | MAKING LEFT TURN |  |  |  |  | 1-80 |  | I-180 N\&S | UNSAFE SPD FOR COND | NONE |
| 50 | GOING STRAIGHT |  |  |  |  | 1-80 |  | I-180 N\&S | UNSAFE SPD FOR COND | NONE |
|  | STARTING IN TRAFFIC | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | 1-80 |  | I-180 N\&S | DRIVER INATTENTION | NO APPARENT VIOL |
| UK | GOING STRAIGHT | E | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | 1-80 |  | I-180 N\&S | NONE | NO APPARENT VIOL |
| 15 | OTHER | W | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | 1-80 |  | I-180 N\&S | NONE | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | N | PASS CAR/VAN | 5 | SLOWING | 1-80 |  | I-180 N\&S | NONE | NO APPARENT VIOL |


| date | time | severity | serial | road desc | vehicles | condition | lighting | weather | ramp | acctype | dir_1 | vehicle_1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3/31/2004 | 0820 | PDO | 200405097 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CARNAN |
| 11/17/2005 | 2100 | INJ | 200517848 | INTERSECTION RELATED | 2 | DRY | DARK-UNLIGHTED | NONE | N | REAR-END | E | PASS CARNAN |
| 6/27/2006 | 1550 | INJ | 200610633 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | E | PASS CARNAN |
| 9/26/2006 | 1045 | INJ | 200616186 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | E | TRUCK GVW > 10K/BUSSES > 15 PEOPLE |
| 10/27/2006 | 1245 | PDO | 200617962 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | E | TRUCK GVW > 10K/BUSSES > 15 PEOPLE |
| 12/8/2006 | 1554 | PDO | 200620387 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PICKUP TRUCK/UTILITY VAN |
| 12/28/2005 | 0913 | PDO | 200521195 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | E | PICKUP TRUCK/UTILITY VAN |
| 2/15/2007 | 0855 | PDO | 200703328 | INTERSECTION RELATED |  | ICY | DAYLIGHT | NONE | N | CURB/RAISED MEDIAN | w | PASS CARIVAN |


| speed_1 | veh_move_1 | dir_2 | vehicle_2 | speed_2 | veh_move_2 | loc_01 | link | loc_02 | violcode_1 | violcode_2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | STOPPED IN TRAFFIC | N | PASS CAR/VAN | UK | SLOWING | 1-80 |  | I-180 N\&S | NONE | NONE |
| 10 | GOING STRAIGHT | E | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | 1-80 |  | I-180 N\&S | NONE | NO APPARENT VIOL |
| 5 | OTHER | E | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | I-80 |  | I-180 N\&S | NONE | NO APPARENT VIOL |
| 0 | STOPPED IN TRAFFIC | E | PICKUP TRUCK/UTILITY VAN | UK | GOING STRAIGHT | 1-80 |  | I-180 N\&S | NO APPARENT VIOL | ILLNESS |
| 5 | GOING STRAIGHT | E | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | 1-80 |  | I-180 N\&S | NONE | NO APPARENT VIOL |
| 8 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | 1-80 |  | I-180 N\&S | NONE | NO APPARENT VIOL |
| 5 | PASSING | E | TRUCK GVW > 10K/BUSSES > 15 PEOPLE | 5 | MAKING RIGHT TURN | 1-80 |  | I-180 N\&S | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 55 | SLOWING |  |  |  |  | 1-80 |  | I-180 N\&S | UNSAFE SPD FOR COND | NONE |



| Location: Accident History for 20TH ST and WARREN AVE |  |  |  | From:01/01/2002 To:12/31/2007 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - Vehicle Type | Veh 1 _ Veh 2 _ Veh 3 _ Vehicle Movement |  |  |  |  |  | 3 |
| Passenger Car/Van: | 23 | 22 | 0 | Going Straight: | 23 | 19 | 0 |
| Passenger Car/Van w/Trl: | 0 | 0 | 0 | Slowing: | 2 | 0 | 0 |
| Pickup Truck/Utility Van: | 5 | 6 | 0 | Stopped in Traffic: | 1 | 7 | 0 |
| Pickup Truck/Utility Van w/Trl: | 0 | 0 | 0 | Making Right Turn: | 1 | 1 | 0 |
| Truck 10k lbs or Less: | 1 | 0 | 0 | Making Left Turn: | 0 | 1 | 0 |
| Trucks > 10k lbs/Bus > 15 People: | 0 | 0 | 0 | Making U-Turn: | 0 | 0 | 0 |
| School Bus < 15 People: | 0 | 0 | 0 | Passing: | 0 | 0 | 0 |
| Non School Bus < 15 People: | 0 | 0 | 0 | Backing: | 0 | 0 | 0 |
| Motorhome: | 0 | 0 | 0 | Enter/Leave Parked Position: | 0 | 0 | 0 |
| Motorcycle: | 0 | 0 | 0 | Starting in Traffic: | 0 | 1 | 0 |
| Bicycle: | 0 | 0 | 0 | Parked: | 0 | 0 | 0 |
| Motorized Bicycle: | 0 | 0 | 0 | Changing Lanes: | 0 | 0 | 0 |
| Farm Equipment: | 0 | 0 | 0 | Avoiding Object in Road: | 0 | 0 | 0 |
| Hit and Run - Unknown: | 0 | 0 | 0 | Weaving: | 0 | 0 | 0 |
| Other: | 0 | 1 | 0 | Other: | 2 | 0 | 0 |
| Unknown: | 0 | 0 | 1 | Unknown: | 0 | 0 | 1 |
| Total: | 29 | 29 | 1 | Total: | 29 | 29 | 1 |


| Contributing Factor |  |  | 3 | Veh 1 — Veh 2 - Veh 3 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No Apparent Contributing Factor: | 0 | 0 | 0 | North: | 18 | 18 | 0 |
| Asleep at the Wheel: | 0 | 0 | 0 | Northeast: | 0 | 0 | 0 |
| Illness: | 0 | 0 | 0 | East: | 1 | 0 | 0 |
| Distracted by Passenger: | 0 | 0 | 0 | Southeast: | 0 | 0 | 0 |
| Driver Inexperience: | 0 | 0 | 0 | South: | 0 | 0 | 0 |
| Driver Fatigue: | 0 | 0 | 0 | Southwest: | 1 | 0 | 0 |
| Driver Preoccupied: | 0 | 0 | 0 | West: | 9 | 10 | 0 |
| Driver Unfamilar with Area: | 0 | 0 | 0 | Northwest: | 0 | 1 | 0 |
| Driver Emotionally Upset: | 0 | 0 | 0 | Unknown: | 0 | 0 | 1 |
| Evading Law Enforcement Officier: | 0 | 0 | 0 | Total: | 29 | 29 | 1 |
| Physical Disability: | 0 | 0 | 0 | Total: | 29 | 29 | 1 |
| Unknown: | 29 | 29 | 1 |  |  |  |  |
| Total: | 29 | 29 | 1 |  |  |  |  |
| -Condition of Driver | 1 | 2 | 3 |  |  |  |  |
| No Impairment Suspected: | 0 | 0 | 0 |  |  |  |  |
| Alcohol Involved: | 0 | 0 | 0 |  |  |  |  |
| RX Drugs or Medication Involved: | 0 | 0 | 0 |  |  |  |  |
| Illegal Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Alcohol and Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Driver/Pedestrian not Observed: | 0 | 0 | 0 |  |  |  |  |
| Unknown: | 29 | 29 | 1 |  |  |  |  |
| Total: | 29 | 29 | 1 |  |  |  |  |


| date | time | severity | serial | road_desc | vehicles | condition | lighting | weather | ramp | acctype | dir_1 | vehicle_1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1/11/2002 | 2116 | PDO | 200200507 | INTERSECTION RELATED | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | E | PICKUP TRUCK/UTILITY VAN |
| 11/25/2002 | 1053 | PDO | 200218955 | INTERSECTION RELATED | 2 | ICY | DAYLIGHT | NONE | N | REAR-END | W | PASS CAR/VAN |
| 1/19/2002 | 1800 | PDO | 200200811 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | N | PASS CAR/VAN |
| 3/18/2002 | 1001 | PDO | 200204191 | AT INTERSECTION | 2 | MUDDY | DAYLIGHT | NONE | N | BROADSIDE | N | PASS CAR/VAN |
| 6/8/2002 | 1239 | INJ | 200208642 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PASS CAR/VAN |
| 11/6/2002 | 1629 | INJ | 200217784 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PICKUP TRUCK/UTILITY VAN |
| 12/3/2002 | 2349 | PDO | 200219677 | AT INTERSECTION | 2 | WET | DARK-LIGHTED | RAIN | N | BROADSIDE | N | PASS CAR/VAN |
| 2/14/2004 | 0221 | INJ | 200402456 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | SW | PASS CAR/VAN |
| 3/22/2004 | 1004 | INJ | 200404711 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PASS CAR/VAN |
| 5/27/2004 | 1101 | PDO | 200407676 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PASS CAR/VAN |
| 10/13/2004 | 0933 | PDO | 200415673 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PASS CAR/VAN |
| 3/30/2005 | 2042 | PDO | 200505004 | AT INTERSECTION | 2 | WET | DARK-LIGHTED | SNOW/SLEET/HAIL | N | BROADSIDE | N | PASS CAR/VAN |
| 7/1/2005 | 1458 | PDO | 200510002 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PASS CAR/VAN |
| 11/7/2005 | 1809 | PDO | 200517439 | AT INTERSECTION | 2 | DRY | DARK-UNLIGHTED | NONE | N | BROADSIDE | W | PICKUP TRUCK/UTILITY VAN |
| 12/1/2005 | 1806 | PDO | 200519011 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | W | PASS CAR/VAN |
| 12/6/2005 | 1222 | PDO | 200519052 | AT INTERSECTION | 2 | SNOWY | DAYLIGHT | SNOW/SLEET/HAIL | N | BROADSIDE | N | PASS CAR/VAN |
| 8/20/2007 | 1005 | INJ | 200713926 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PASS CAR/VAN |
| 11/19/2007 | 2345 | INJ | 200720046 | AT INTERSECTION | 2 | DRY | DARK-LIGHTED | NONE | N | BROADSIDE | W | PASS CAR/VAN |
| 1/31/2002 | 0926 | PDO | 200201426 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CAR/VAN |
| 3/2/2002 | 1236 | PDO | 200204909 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CAR/VAN |
| 7/21/2002 | 1951 | PDO | 200211091 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PICKUP TRUCK/UTILITY VAN |
| 2/13/2003 | 1321 | INJ | 200302323 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CAR/VAN |
| 4/26/2003 | 2157 | PDO | 200306633 | INTERSECTION RELATED | 2 | WET | DARK-LIGHTED | NONE | N | REAR-END | N | PASS CAR/VAN |
| 5/11/2003 | 1128 | INJ | 200307100 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CAR/VAN |
| 1/26/2005 | 1406 | PDO | 200501711 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PICKUP TRUCK/UTILITY VAN |
| 3/23/2005 | 1439 | INJ | 200504681 | INTERSECTION RELATED | 4 | DRY | DAYLIGHT | NONE | N | REAR-END | N | TRUCK GVW <= 10K LBS |
| 5/29/2006 | 2015 | PDO | 200608726 | INTERSECTION RELATED | 2 | DRY | DAWN OR DUSK | NONE | N | REAR-END | N | PASS CAR/VAN |
| 4/1/2007 | 1808 | PDO | 200705847 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PASS CAR/VAN |
| 5/1/2002 | 1520 | PDO | 200206837 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | OVERTAKING TURN | W | PASS CAR/VAN |


| speed_1 | veh_move_1 | dir_2 | vehicle_2 | speed_2 | veh_move_2 | loc_01 | link | loc_02 | violcode_1 | violcode_2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UK | OTHER | N | PASS CAR/VAN | 5 | MAKING LEFT TURN | 20TH ST |  | WARREN AVE | OTHER | NO APPARENT VIOL |
| 10 | SLOWING | W | PICKUP TRUCK/UTILITY VAN | 0 | STOPPED IN TRAFFIC | 20TH ST |  | WARREN AVE | DRIVER INATTENTION | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | W | PASS CAR/VAN | 20 | GOING STRAIGHT | WARREN AVE |  | 20TH ST | BACKING UNSAFELY | NO APPARENT VIOL |
| UK | GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | UK | GOING STRAIGHT | WARREN AVE |  | 20TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 35 | GOING STRAIGHT | N | PASS CAR/VAN | 25 | GOING STRAIGHT | WARREN AVE |  | 20TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | N | PASS CAR/VAN | 15 | GOING STRAIGHT | WARREN AVE |  | 20TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 15 | GOING STRAIGHT | W | PICKUP TRUCK/UTILITY VAN | 15 | GOING STRAIGHT | WARREN AVE |  | 20TH ST | NO APPARENT VIOL | DRIVER INATTENTION |
| 20 | GOING STRAIGHT | NW | PASS CAR/VAN | 20 | GOING STRAIGHT | WARREN AVE |  | 20TH ST | NONE | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | N | PASS CAR/VAN | 15 | GOING STRAIGHT | WARREN AVE |  | 20TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 5 | GOING STRAIGHT | N | PASS CAR/VAN | 5 | GOING STRAIGHT | WARREN AVE |  | 20TH ST | NO APPARENT VIOL | TRAF CNTRL DISREG |
| 20 | GOING STRAIGHT | W | PASS CAR/VAN | 20 | GOING STRAIGHT | WARREN AVE |  | 20TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | W | PASS CAR/VAN | 25 | GOING STRAIGHT | WARREN AVE |  | 20TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 15 | GOING STRAIGHT | W | PASS CAR/VAN | UK | GOING STRAIGHT | WARREN AVE |  | 20TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | N | PASS CAR/VAN | 10 | GOING STRAIGHT | WARREN AVE |  | 20TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 25 | GOING STRAIGHT | N | PASS CAR/VAN | 20 | GOING STRAIGHT | WARREN AVE |  | 20TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 15 | GOING STRAIGHT | W | PASS CAR/VAN | 5 | STARTING IN TRAFFIC | WARREN AVE |  | 20TH ST | UNSAFE SPD FOR COND | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | W | PASS CAR/VAN | 20 | GOING STRAIGHT | WARREN AVE |  | 20TH ST | OTHER | OTHER |
| 20 | GOING STRAIGHT | N | PASS CAR/VAN | 20 | GOING STRAIGHT | WARREN AVE |  | 20TH ST | TRAF CNTRL DISREG | NO APPARENT VIOL |
| 10 | OTHER | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | WARREN AVE |  | 20TH ST | DRIVER INATTENTION | NO APPARENT VIOL |
| 18 | SLOWING | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | WARREN AVE |  | 20TH ST | NONE | NO APPARENT VIOL |
| 0 | STOPPED IN TRAFFIC | N | PASS CAR/VAN | 20 | GOING STRAIGHT | WARREN AVE |  | 20TH ST | NO APPARENT VIOL | DRIVER INATTENTION |
| 17 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | WARREN AVE |  | 20TH ST | DRIVER INATTENTION | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | N | PICKUP TRUCK/UTILITY VAN | UK | GOING STRAIGHT | WARREN AVE |  | 20TH ST | NONE | NONE |
| 15 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | WARREN AVE |  | 20TH ST | DRIVER INATTENTION | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | N | PICKUP TRUCK/UTILITY VAN | 10 | GOING STRAIGHT | WARREN AVE |  | 20TH ST | NONE | NO APPARENT VIOL |
| 15 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | WARREN AVE |  | 20TH ST | NONE | NO APPARENT VIOL |
| 20 | GOING STRAIGHT | N | PASS CAR/VAN | 0 | STOPPED IN TRAFFIC | WARREN AVE |  | 20TH ST | DRIVER INATTENTION | NO APPARENT VIOL |
| 10 | GOING STRAIGHT | N | PICKUP TRUCK/UTILITY VAN | 5 | GOING STRAIGHT | WARREN AVE |  | 20TH ST | NONE | NO APPARENT VIOL |
| 20 | MAKING RIGHT TURN | W | OTHER - SEE REPORT | 20 | MAKING RIGHT TURN | WARREN AVE |  | 20TH ST | DRIVER INATTENTION | NO APPARENT VIOL |


| Severity |  |  |
| :---: | ---: | :---: |
| PDO: | 22 |  |
| INJ: | 7 | 10 :Injured |
| FAT: | 0 | 0 :Killed |
| Total: | 29 |  |


| Number of Vehicles  <br> One Vehicle: 1 <br> Two Vehicles: 26 <br> Three or More: 2 <br> Unknown: 0 <br> Total: $\mathbf{2 9}$ <br> On Road: 0 <br> Off Road Left: 0 <br> Off Road Right: 0 <br> Off Road at Tee: 0 <br> Off in Median: 0 <br> Unknown: 29 <br> Total: $\mathbf{2 9}$ |
| :--- |


| Accident Type |  |  |  |
| :---: | :---: | :---: | :---: |
| Overturning: | 0 | Median Barrier: | 0 |
| Other Non Collision: | 0 | Bridge Abutment: | 0 |
| School Age Peds: | 0 | Column/Pier: | 0 |
| Other Pedestrians: | 0 | Culvert/Headwall: | 0 |
| Broadside: | 14 | Embankment: | 0 |
| Head On: | 0 | Curb: | 1 |
| Rear End: | 4 | Delineator Post: | 0 |
| Sideswipe (Same): | 5 | Fence: | 0 |
| Sideswipe (Opposite): | 3 | Tree: | 0 |
| Approach Turn: | 2 | Large Boulder: | 0 |
| Overtaking Turn: | 0 | Rocks in Roadway: | 0 |
| Parked Motor Vehicle: | 0 | Barricade: | 0 |
| Railway Vehicle: | 0 | Wall/Building: | 0 |
| Bicycle: | 0 | Crash Cushion: | 0 |
| Motorized Bicycle: | 0 | Mailbox: | 0 |
| Domestic Animal: | 0 | Other Fixed Object: | 0 |
| Wild Animal: | 0 | Total Fixed Objects: | 1 |
| Light/Utility Pole: | 0 | Involving Other Object: | 0 |
| Traffic Signal Pole: | 0 | Road Maintenance Equipment: | 0 |
| Sign: | 0 | Total Other Objects: | 0 |
| Bridge Rail: | 0 | Unknown: | 0 |
| Guard Rail: | 0 | Total: | 29 |
| Cable Rail: | 0 |  |  |



| - Road Description |  | Road Conditions |  |
| :---: | :---: | :---: | :---: |
| At Intersection: | 18 | Dry: | 22 |
| At Driveway Access: | 0 | Wet: | 3 |
| Intersection Related: | 11 | Muddy: | 0 |
| Non Intersection: | 0 | Snowy: | 0 |
| In Alley: | 0 | Icy: | 4 |
| Roundabout: | 0 | Slushy: | 0 |
| Ramp: | 0 | Foreign Material: | 0 |
| Parking Lot: | 0 | With Road Treatment: | 0 |
| Unknown: | 0 | Dry w/Icy Road Treatment: | 0 |
| Total: |  | Wet w/lcy Road Treatment: | 0 |
| Total: |  | Snowy w/lcy Road Treatment: | 0 |
|  |  | Icy w/Icy Road Treatment: | 0 |
|  |  | Slushy w/lcy Road Treatment: | 0 |
|  |  | Unknown: | 0 |
|  |  | Total: | 29 |



| date | time | severity | serial | road_desc | vehicles | condition | lighting | weather | ramp | acctype | dir_1 | vehicle_1 | speed_1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7/19/2003 | 2335 | INJ | 200310659 | INTERSECTION RELATED | 2 | DRY | DARK-LIGHTED | NONE | N | REAR-END | W | PASS CAR/VAN | 25 |
| 2/14/2002 | 1607 | PDO | 200202344 | INTERSECTION RELATED | 2 | WET | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | E | PICKUP TRUCK/UTILITY VAN | 20 |
| 7/31/2006 | 1402 | PDO | 200612443 | INTERSECTION RELATED | 1 | DRY | DAYLIGHT | NONE | N | CURB/RAISED MEDIAN | N | PASS CAR/VAN | 20 |
| 3/26/2002 | 0733 | PDO | 200204905 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PASS CAR/VAN | 20 |
| 12/15/2002 | 1440 | INJ | 200220325 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PASS CAR/VAN | 10 |
| 10/3/2003 | 1719 | PDO | 200315193 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PASS CAR/VAN | 15 |
| 12/19/2003 | 1506 | INJ | 200320801 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PASS CAR/VAN | 5 |
| 4/9/2004 | 1554 | PDO | 200405567 | AT INTERSECTION | 2 | WET | DAYLIGHT | RAIN | N | BROADSIDE | N | PASS CAR/VAN | 5 |
| 7/14/2004 | 1229 | INJ | 200410386 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PASS CAR/VAN | 10 |
| 7/21/2004 | 1830 | PDO | 200410831 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | NW | PICKUP TRUCK/UTILITY VAN | 10 |
| 8/13/2004 | 1310 | PDO | 200412265 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PASS CAR/VAN | 5 |
| 12/20/2004 | 1537 | PDO | 200420338 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PICKUP TRUCK/UTILITY VAN | 35 |
| 12/30/2005 | 0855 | PDO | 200521584 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | S | PASS CAR/VAN | 10 |
| 2/23/2007 | 1558 | INJ | 200703718 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PASS CAR/VAN | 10 |
| 6/15/2007 | 1342 | PDO | 200710130 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | E | PASS CAR/VAN | 15 |
| 7/2/2007 | 1313 | PDO | 200711070 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | W | PICKUP TRUCK/UTILITY VAN | 20 |
| 9/27/2007 | 0757 | PDO | 200716624 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | BROADSIDE | N | PASS CAR/VAN | 15 |
| 7/25/2003 | 1715 | PDO | 200311091 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | REAR-END | N | PICKUP TRUCK/UTILITY VAN | 5 |
| 12/19/2005 | 0922 | PDO | 200520443 | INTERSECTION RELATED | 2 | ICY | DAYLIGHT | NONE | N | REAR-END | N | PASS CAR/VAN | 25 |
| 1/14/2007 | 1522 | PDO | 200700551 | INTERSECTION RELATED | 2 | ICY | DAYLIGHT | NONE | N | REAR-END | E | PASS CAR/VAN | 20 |
| 10/11/2002 | 1252 | PDO | 200216023 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | SE | PASS CAR/VAN | 5 |
| 7/3/2006 | 1028 | INJ | 200610716 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | SE | MOTORCYCLE | 25 |
| 8/5/2006 | 1425 | PDO | 200612865 | INTERSECTION RELATED | 2 | DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | N | PASS CAR/VAN | 5 |
| 8/26/2007 | 1326 | PDO | 200714627 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | SIDESWIPE SAME DIRECTION | NE | PICKUP TRUCK/UTILITY VAN | 5 |
| 7/23/2005 | 1051 | PDO | 200511111 | INTERSECTION RELATED | 3 | DRY | DAYLIGHT | NONE | N | SIDESWIPE OPPOSITE DIRECTION | S | PASS CAR/VAN | 3 |
| 1/17/2007 | 1347 | PDO | 200700588 | INTERSECTION RELATED | 2 | ICY | DAYLIGHT | NONE | N | SIDESWIPE OPPOSITE DIRECTION | S | PICKUP TRUCK/UTILITY VAN | 15 |
| 12/30/2007 | 1456 | PDO | 200723874 | INTERSECTION RELATED | 2 | ICY | DAYLIGHT | SNOW/SLEET/HAIL | N | SIDESWIPE OPPOSITE DIRECTION | S | PASS CAR/VAN | 15 |
| 7/15/2004 | 1533 | PDO | 200410597 | AT INTERSECTION | 2 | DRY | DAYLIGHT | NONE | N | APPROACH TURN | SW | PASS CAR/VAN | 5 |
| 7/19/2004 | 1636 | INJ | 200415362 | AT INTERSECTION | 3 | WET | DAYLIGHT | NONE | N | APPROACH TURN | W | PASS CAR/VAN | 10 |




| Contributing Factor |  |  | 3 | Veh 1 — Veh 2 — Veh 3 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No Apparent Contributing Factor: | 0 | 0 | 0 | North: | 17 | 11 | 0 |
| Asleep at the Wheel: | 0 | 0 | 0 | Northeast: | 1 | 0 | 0 |
| Illness: | 0 | 0 | 0 | East: | 2 | 10 | 0 |
| Distracted by Passenger: | 0 | 0 | 0 | Southeast: | 0 | 0 | 0 |
| Driver Inexperience: | 0 | 0 | 0 | South: | 1 | 0 | 0 |
| Driver Fatigue: | 0 | 0 | 0 | Southwest: | 0 | 0 | 0 |
| Driver Preoccupied: | 0 | 0 | 0 | West: | 1 | 0 | 0 |
| Driver Unfamilar with Area: | 0 | 0 | 0 | Northwest: | 1 | 2 | 0 |
| Driver Emotionally Upset: | 0 | 0 | 0 | Unknown: | 0 | 0 | 4 |
| Evading Law Enforcement Officier: | 0 | 0 | 0 | Total: | 23 | 23 | 4 |
| Physical Disability: | 0 | 0 | 0 | Total. | 23 | 23 | 4 |
| Unknown: | 23 | 23 | 4 |  |  |  |  |
| Total: | 23 | 23 | 4 |  |  |  |  |
| Condition of Driver | 1 | 2 |  |  |  |  |  |
| No Impairment Suspected: | 0 | 0 | 0 |  |  |  |  |
| Alcohol Involved: | 0 | 0 | 0 |  |  |  |  |
| RX Drugs or Medication Involved: | 0 | 0 | 0 |  |  |  |  |
| Illegal Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Alcohol and Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Driver/Pedestrian not Observed: | 0 | 0 | 0 |  |  |  |  |
| Unknown: | 23 | 23 | 4 |  |  |  |  |
| Total: | 23 | 23 | 4 |  |  |  |  |


| - Contributing Factor_- Veh 1 _ Veh 2 _ Veh 3 - Direction_ Veh 1 - Veh 2 - Veh 3 - |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No Apparent Contributing Factor: | 0 | 0 | 0 | North: | 17 | 11 | 0 |
| Asleep at the Wheel: | 0 | 0 | 0 | Northeast: | 1 | 0 | 0 |
| Illness: | 0 | 0 | 0 | East: | 2 | 10 | 0 |
| Distracted by Passenger: | 0 | 0 | 0 | Southeast: | 0 | 0 | 0 |
| Driver Inexperience: | 0 | 0 | 0 | South: | 1 | 0 | 0 |
| Driver Fatigue: | 0 | 0 | 0 | Southwest: | 0 | 0 | 0 |
| Driver Preoccupied: | 0 | 0 | 0 | West: | 1 | 0 | 0 |
| Driver Unfamilar with Area: | 0 | 0 | 0 | Northwest: | 1 | 2 | 0 |
| Driver Emotionally Upset: | 0 | 0 | 0 | Unknown: | 0 | 0 | 4 |
| Evading Law Enforcement Officier: | 0 | 0 | 0 | Total: | 23 | 23 | 4 |
| Physical Disability: | 0 | 0 | 0 | Total: | 23 | 23 | 4 |
| Unknown: | 23 | 23 | 4 |  |  |  |  |
| Total: | 23 | 23 | 4 |  |  |  |  |
| dition of Driver_- Veh 1 _ Veh 2 _ Veh 3 |  |  |  |  |  |  |  |
| No Impairment Suspected: | 0 | 0 | 0 |  |  |  |  |
| Alcohol Involved: | 0 | 0 | 0 |  |  |  |  |
| RX Drugs or Medication Involved: | 0 | 0 | 0 |  |  |  |  |
| Illegal Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Alcohol and Drugs Involved: | 0 | 0 | 0 |  |  |  |  |
| Driver/Pedestrian not Observed: | 0 | 0 | 0 |  |  |  |  |
| Unknown: | 23 | 23 | 4 |  |  |  |  |
| Total: | 23 | 23 | 4 |  |  |  |  |


| Location: Accident History for 19TH ST and WARREN AVE |  |  |  | From:01/01/2002 To:12/31/2007 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - Vehicle Type | Veh 1 _ Veh 2 __ Veh 3 _ Vehicle Movement |  |  |  | 1 |  | - |
| Passenger Car/Van: | 17 | 19 | 0 | Going Straight: | 19 | 14 | 0 |
| Passenger Car/Van w/Trl: | 0 | 0 | 0 | Slowing: | 2 | 0 | 0 |
| Pickup Truck/Utility Van: | 4 | 2 | 0 | Stopped in Traffic: | 0 | 4 | 0 |
| Pickup Truck/Utility Van w/Trl: | 0 | 0 | 0 | Making Right Turn: | 0 | 1 | 0 |
| Truck 10k lbs or Less: | 0 | 0 | 0 | Making Left Turn: | 0 | 0 | 0 |
| Trucks > 10k lbs/Bus > 15 People: | 0 | 0 | 0 | Making U-Turn: | 0 | 0 | 0 |
| School Bus < 15 People: | 0 | 0 | 0 | Passing: | 0 | 0 | 0 |
| Non School Bus < 15 People: | 0 | 0 | 0 | Backing: | 0 | 0 | 0 |
| Motorhome: | 0 | 0 | 0 | Enter/Leave Parked Position: | 0 | 0 | 0 |
| Motorcycle: | 1 | 0 | 0 | Starting in Traffic: | 1 | 4 | 0 |
| Bicycle: | 1 | 1 | 0 | Parked: | 0 | 0 | 0 |
| Motorized Bicycle: | 0 | 0 | 0 | Changing Lanes: | 1 | 0 | 0 |
| Farm Equipment: | 0 | 0 | 0 | Avoiding Object in Road: | 0 | 0 | 0 |
| Hit and Run - Unknown: | 0 | 0 | 0 | Weaving: | 0 | 0 | 0 |
| Other: | 0 | 1 | 0 | Other: | 0 | 0 | 0 |
| Unknown: | 0 | 0 | 4 | Unknown: | 0 | 0 | 4 |
| Total: | 23 | 23 | 4 | Total: | 23 | 23 | 4 |





Report By:

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Cheyenne Metropolitan Planning Organization (MPO)
Prioritizing Hazardous Locations/Safety Audits
Contract \# 187396
April 2010


[^0]:    ${ }^{1}$ Hauer, E., (1999) Safety Review of Highway 407: Confronting Two Myths. TRB

[^1]:    ${ }^{2}$ Identifying Locations with Potential for Accident Reductions - Use of Direct Diagnostics and Pattern Recognition Methodologies, TRB - TRR 1784, Paper No. 02-2160, Pages 153-158
    ${ }^{3}$ Diagnostic Methodology for the Detection of Safety Problems at Intersections, TRB - TRR 1784, Paper No. 02-2148, Pages 51-56

[^2]:    ${ }^{4}$ Two Low-Cost Safety Concepts for Two-Way STOP-Controlled, Rural Intersections on High-Speed Two-Lane, Two-Way Roadways, FHWA Publication No.: FHWA-HRT-08-063

