## South Jersey Transportation Planning Organization

## 2011-12 Road Safety Assessment

New Jersey Avenue (CR 621)<br>Wildwood Crest Borough<br>Wildwood City<br>Cape May County



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## Introduction

Orth-Rodgers \& Associates, Inc. (ORA) was selected by the South Jersey Transportation Planning Organization (SJTPO) to conduct their 2011-12 Road Safety Assessment (RSA) project. The sections of roadway to be studied were selected by SJTPO based on a number of factors considered important to the safety and future development of the roadways. Among the factors considered were crash data, traffic volume growth, recent and planned future development along the roadway, and local cooperation and control.

Three roadway sections and 15 signalized intersections were chosen for the 2011-12 assessments. Two of the roadways are located in Atlantic County and one in Cape May County and the 15 signalized intersections are located in Cape May County.

The three roadway sections are:

1. New Jersey Avenue (CR 621) between Rambler Road (MP 4.19) and Cresse Road (MP 5.05) and between Young Avenue (MP 5.70) and $26^{\text {th }}$ Street (MP 6.37) in Wildwood Crest Borough and Wildwood City, Cape May County.
2. Brigantine Avenue (CR 638) entire length, between RT 87 and its northern terminus north of $14^{\text {th }}$ Street. In The City of Brigantine, Atlantic County.
3. Ventnor Avenue (CR 629), between Coolidge Avenue (MP 0.78) in Margate City and Dorset Avenue (MP 3.39) in Ventnor City, Atlantic County.

The 15 signalized intersections are:

1. Central Avenue and $16^{\text {th }}$ Avenue in the City of North Wildwood
2. The following locations in the city of Wildwood
a. New York Avenue and Maple Avenue (flashing beacon)
b. Atlantic Avenue and Glenwood Avenue
c. Atlantic Avenue and Montgomery Avenue
d. Atlantic Avenue and Wildwood Avenue
e. Atlantic Avenue and Oak Avenue
f. Atlantic Avenue and Schellenger Avenue
g. Atlantic Avenue and Taylor Avenue
h. Atlantic Avenue and Hand Avenue
i. Atlantic Avenue and Cresse Avenue
j. Atlantic Avenue and Magnolia Avenue
k. Atlantic Avenue and 26th Street
l. Ocean Avenue and Cresse Avenue
m. Pacific Avenue and Baker Avenue
n. Pacific Avenue and Spencer Avenue
o. Central Avenue and $16^{\text {th }}$ Avenue

Each studied roadway will have a separate report, but will share basically the same introduction, background section, format and some text.

Safety assessments serve to address the safe operation of the roadways and to ensure a high level of safety for all road users. The process of a safety assessment is two-fold: 1) to conduct a formal examination of highway features and the surrounding environment that increases the potential for crashes; and, 2) to identify countermeasures that will reduce or eliminate the probability of such crashes. According to the Federal Highway Administration (FHWA), the formal definition of a road safety assessment is as follows:
> "A Road Safety Audit is the formal examination of an existing or future roadway or traffic project by an independent team of trained specialists." ${ }^{1}$

1 Federal Highway Administration, Road Safety Audits and Road Safety Audit Reviews, EDL \#12345 FHWA XX-03-999

To accomplish these goals, the team assesses the safety performance history as well as the future crash potential of a roadway and prepares a report that documents the safety deficiencies and appropriate countermeasures. The purpose of the 2011-12 assessment is to identify potential safety deficiencies along the selected sections of the three roadways and the 15 signalized intersections.

There are three primary parts of the assessment: 1) the data collection and analysis phase; 2) the field view (conducted by the team); and, 3) the preparation of the report and findings.

The data collection phase is performed prior to the assessment team conducting a field view of the entire roadway. The data is intended to assist the team in identifying potential safety issues, as well as to provide a factual and historic component of the study. Traffic count and crash data are collected, and a capacity analysis of major intersections is performed. The traffic counts are used to assist in analyzing solutions for the intersections, as well as aid in identifying the most congested sections of the roads. The crash data assists the team in identifying specific areas and/or conditions that warrant close scrutiny that might have otherwise been overlooked. The capacity analysis of intersections identifies how well the intersections are operating and when and where improvements may be needed. Based on an analysis of all of the data, the team can conduct a productive and comprehensive evaluation of the roads being studied. A multidisciplinary team conducts the field view. In this case, the team walked the entire length of the study area discussing observations and taking notes for inclusion in the report. The team leader then prepared a draft report that documented the assessments findings and recommended actions. The draft report was distributed to the team members for their review and comments. A final report was then prepared by the team leader incorporating the agreed upon draft report comments.

## BACKGROUND INFORMATION

At the pre-assessment meeting a list of questions were asked of the County and local representatives seeking to gather background information on New Jersey Avenue (CR 621). The questions asked were:

- Why was the road chosen for the assessment?
- What problems exist on the road?
- What areas should be given special attention?
- Has the roadway changed in the last three years?
- Are there any projects pending or anticipated for the roadway and their status?
- Have any of the traffic control devices or regulations been changed in the last three years (i.e., signals, speed limits, etc.)?
- Was there any development on the road in the last three years, or any proposed development on the road or in the area that has or will impact traffic in the future?
- Are any recent traffic counts available?
- Have any recent traffic studies been conducted on the road?
- What plans, if any, are available for the road?
- At what locations should new traffic counts, either turning movement or ATRs, be conducted?

The same questions were again asked at the workshop on the day of the assessment to ensure that no available data was missing. A pre-assessment information package was prepared and distributed at the workshop prior to the field view. The package included a brief explanation of what a safety assessment is, why safety assessments are conducted, and the process involved. It also included a chart of three year crash trends, crash occurrence by month, by day of the week, by time of day, by surface condition, by light condition, by crash severity, by crash type, and by closest intersection.

## NEW JERSEY AVENUE (CR 621)

New Jersey Avenue (CR 621) is under the jurisdictional control of Cape May County. It is designated as a south-north road. The road is classified as an urban principal arterial. The total length of the study area is approximately 1.6 miles divided into two segments.

The southern section of New Jersey Avenue (CR 621) reviewed in this project (Rambler Road to Cresse Avenue (MP4.19 to MP5.05)) is a five lane roadway consisting of two through lanes in each direction with a center left turn lane. This section is classified as an urban minor arterial. The northern section of the road reviewed (Young Avenue to $26^{\text {th }}$ Street (MP5.70 to MP6.37)) consists of a four lane section between Young Avenue and Schellenger Avenue and a five lane section consisting of two thorough lanes in each direction with a center left turn lane between Schellenger Avenue and $26^{\text {th }}$ Street. This section of roadway is classified as an urban principal arterial. Parking is practiced along both sides of much of the road. The speed limit along the study section of road is 25 MPH. Its curb lines are fully developed with mixed business-residential use. There are sidewalks along most of the road.

It was ascertained from local members of the assessment team that:

- The road was chosen as part of the assessment because of the crashes experienced and the influx of summer traffic as the road is located in the summer resort area of the state. Also, the County wishes to upgrade the traffic signals as most are old and lack pedestrian signals. It is worth noting pedestrian and bicyclist activity is significant during the summer months. The road has narrow lanes which makes the shared vehicle/bicyclist usage a safety concern
- There are no projects planned for the road.
- There have been no changes to the traffic controls along the road in the last three years. The following sections describe the various tasks undertaken by ORA in partnership with the Safety Assessment Team and summarize the findings from the assessment process in a manner that will allow the responsible agencies and personnel to prioritize implementation of safety enhancements.


## Pre-Assessment Data Collection and Analysis

Prior to the assessment activities on site, ORA collected and reviewed traffic data and other related materials in order to assist the team in conducting the assessment. ORA also conducted a pre-assessment field view of the road to familiarize itself with the road. A description of the materials that were reviewed is provided below.

## 1. Traffic Volume Data

The County requested that an eight-hour traffic count be conducted at the New Jersey Avenue (CR621) and $26^{\text {th }}$ Street intersection during the summer resort season. Also, 10AM2 PM Saturday traffic counts were taken at the intersection. GTS consultants conducted the counts on Thursday August 11, 2011 and Saturday August 20, 2011. Since the road is located within the summer resort area of the state the County requested traffic counts be conducted during the summer months, therefore they were not available prior to conducting the field view.

## 2. Crash Data

SJTPO forwarded to ORA the crash data excel files for the roadway sections being studied. Crash data for the years 2008, 2009 and 2010 was reviewed. A summary sheet, crash data summary text, and crash data charts were prepared for use during the pre-assessment meeting.

## CRASH DATA SUMMARY

During the kickoff meeting with the County it was learned that SJTPO would provide the crash charts for the sections of roadway being assessed and it was agreed that a straight line diagram plot of the crash data would not be required. SJTPO forwarded to ORA separate crash charts for MP 4.19-5.05 and 5.70-6.37 for the years 2008, 2009 and 2010. ORA combined the charts for the two separate sections of road as well as combined the individual yearly data to make the data more manageable during the pre-assessment meeting. The only charts for the two sections of roadway that were not combined were those depicting the spot location of the crashes. A summary sheet was prepared for the three year period.

In the three year period (2008-2010), a total of 39 crashes occurred along the study section of road. Eleven (11) crashes occurred in 2008, seventeen (17) in 2009 and eleven (11) in 2010.

The types of crashes are characterized as follows a concentration of crashes for reference in this report will consist of three (3) or more crashes of the same type at a location in the three (3) year period, (2008-2010). The table on the following page summarizes the crash data by type of crash and location:

| \# of <br> Crashes | Type of Crash | Location of Crashes |
| :--- | :--- | :--- |
| 0 | Fatal Crashes |  |
| 17 | Injury Crashes |  |
| 22 | Non-Injury Crashes | (2) n Juniper Avenue, (2) Lavender <br> Road, No other concentrations |
| 12 | Right Angle Type Crashes | (2) at 26th Street <br> (2) at Oak Avenue <br> No other concentrations |
| 8 | Crashes | At Wildwood Avenue |
| 1 | Side Swipe Same Direction Type <br> Crashes | No concentration |
| 3 | Fixed Object Type Crashes | Wildwood Avenue and Cardinal Road |
| 2 | Bicyclist Type Crashes | Vicinity of Spencer Avenue |
| 1 | (1) at Lotus Road <br> (1) at Lincoln Avenue <br> (1) at Oak Avenue <br> (1) at Spicer Avenue <br> (1) at Wildwood Avenue <br> (1) at Young Road |  |
| 4 | (1) Cardinal Road, (1) New Jersey <br> Avenue, (1) Glenwood Avenue, (1) <br> Magnolia Avenue |  |
| 2 | Other Type crashes (1 backing, 1 <br> other) | No concentration <br> 4 |

The crash data was compared to the "Crash Summary for County Road System" obtained from the NJDOT for the year 2009. Where SJTPO Regional averages for roads in the region were available they also are referenced.

A review of the crashes established the following:

- The month with the most crashes as expected since the roadway is in the summer resort area of the state was July (15). There were no crashes in March or December.
- The day of the week with the highest number of crashes was Sunday (8) and Wednesday was the day with the least number of crashes (4).
- The highest frequency of crashes (5) occurred between 9:00-10:00 AM, 10:00-11:00 AM and 2:00-3:00 PM.
- The percentage of crashes during hours of darkness (24\%) is approximately the same as statewide average for county roads (approximately 27\%). The SJTPO Regional average for roads in the region is 24 \%.
- The percentage of crashes for wet surface conditions (5\%) is much less then the statewide average for county roads (approximately 22\%).
- The percentage of crashes with injuries (44\%) is higher than the statewide average for county roads (approximately 28\%).
- The percentage of right angle type crashes (31\%) is higher than the statewide average for county roads (approximately 19\%). The SJTPO regional average for roads in the region is $16 \%$.
- The percentage of same directional rear end type crashes (21\%) is less than the statewide average for county roads (approximately 32\%). The SJTPO regional average for roads in the region is $22 \%$.
- The percentage of left-turn crashes (3\%) is approximately the same as the statewide average for county roads (approximately 5\%).
- The percentage of same direction side-swipe type crashes (8\%) is approximately the same as the statewide average for county roads (approximately 11\%). The SJTPO regional average for roads in the region is $9 \%$.
- The percentage of fixed-object type crashes (5\%) is less than the statewide average for county roads (approximately 12\%). The SJTPO regional average for roads in the region is $17 \%$.
- The percentage of bicycle type crashes (15\%) is much higher than the statewide average for county roads (approximately 1\%).
- The percentage of struck parked vehicle type crashes (10\%) is much higher than the statewide average for county roads (approximately 1\%). The SJTPO Regional average for roads in the area is $13 \%$.


## Assessment

On August 9, 2011, the Safety Assessment Team met in the Cape May County Engineers office building to formally conduct the assessment. The meeting commenced at 9:30 AM with brief statements by ORA representatives who reiterated the importance of RSAs and outlined the objectives of the safety assessment. There were brief introductions by team members followed by an extensive review and discussion of materials described in the previous section. The team then drove to the southern end of study area, the Rambler Road intersection, to begin the assessment. Cape May County provided a van for the team. Team members are listed below.

SAFETY ASSESSMENT TEAM FOR NEW JERSEY AVENUE

| Name | Agency |
| :--- | :--- |
| Brian Stankus | Orth-Rodgers \& Associates, Inc. |
| Michael Weber | Rutgers TSRC |
| Jennifer Marandino | SJTPO |
| Dale Foster | Cape May County |
| Thanh Le | Rutgers TSRC |
| Ashley Machado | Rutgers TSRC |
| Andy Kaplan | Rutgers TSRC |
| Kim Catrambone | Orth-Rodgers \& Associates, Inc. |
| Norman Deitch | Orth-Rodgers \& Associates, Inc. |
| George Strathern | Orth-Rodgers \& Associates, Inc. |

The team walked the entire length of the study area in both directions. During the field views, team members identified features on the roadway and its surrounding environment that could contribute to the occurrence or relative severity of roadway crashes. At the intersections and mid-block locations, the Team identified safety deficiencies and inappropriate traffic signs, as well as other items that were felt to be inconsistent with effective road function and use. A variety of safety improvement measures were discussed with field notes and digital photographs being taken by team members.

At the completion of the assessment, the team leader recapped the findings of the assessment with the team. The team leader informed the team members on the next step in the assessment
process; ORA will prepare a draft report summarizing the findings from the assessment process and forward the report to all team members for their review and comments.

On Thursday January 12, 2012 Dale Foster, Norm Deitch and George Strathern conducted a night assessment. The goal was to check the retroflectivity of the street signs and pavement markings. In addition, the need for street lighting was checked and lights adjacent to the roadway on private property were checked to ensure that they did not create bright areas that could distract drivers. The team also looked for issues that would only be apparent during hours of darkness, such as clearly defined roadway alignment, ineffective street lighting, etc.

The next section of the report summarizes the findings from the daytime and nighttime assessment of New Jersey Avenue (CR 621) along with suggested remedial actions to address the noted safety issues. In order to assist in prioritizing the work effort recommended to correct the situation, the level of effort required (low, medium, high) and degree of safety benefit derived (low, medium, high) is also noted for each item.

## LEVEL OF EFFORT REQUIRED

For this road safety assessment final report the "level of effort" required to address a remedial action recommendation has been divided into three levels-low, medium and high. A correlation of cost and man hour expenditures generally helps to define the level of effort. The following are some examples of the levels of effort:

- Low Level of Effort - Development of general work orders or directives from the engineering department to its maintenance forces to: implement signal timing changes, pavement marking revisions and refurbishing; replace worn signs; installing new signs; replacing a few rigid sign supports with breakaway supports; tree trimming.
- Medium Level of Effort - Minor revisions to a traffic signal not requiring any underground work; replacing inlet grates; installing or repairing small sections of sidewalk and guiderail; installing corridor wide breakaway sign supports; restriping an entire roadway section; signal revisions that require re-wiring for new signal heads; installing pedestrian indications; conducting more detailed in-house traffic studies to address specific issues.
- High Level of Effort - Redesign of roadway features; major signal revisions requiring underground work such as new foundations, conduit, new signal controller; resolving poor drainage issues; development of design plans that would require outside contractors to implement; any road work that would require permits and general capital improvement projects.


## POTENTIAL SAFETY BENEFITS

Potential safety benefits are divided into three categories- low, medium and high. This is a subjective breakdown based on engineer's opinion as to the percentage of the road that would be impacted by the improvement along with the degree of impact that the identified safety issue would have on potential crash experience. For example, eliminating a potential tripping safety hazard where there are very few pedestrians could be considered low, however, if the number of pedestrians was high the potential safety benefit would increase. Pavement markings not visible at night could be considered high.

## Findings

The findings from the New Jersey Avenue (CR 621) safety assessment, except where repetitious items have been combined into a single comment or general comment, are generally presented on the following pages in the approximate order of their location along the roadway, beginning at Rambler Road and proceeding north to Cresse Avenue then traveling south to Rambler Road; and then beginning at Young Avenue and proceeding north to $26^{\text {th }}$ Street and then traveling south to Young Road.

| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 1 | General comment - there are some handicapped ramps along the roadway but most do not appear to be in compliance with ADA standards. Other locations lack them entirely. Many lack the detectable warning surfaces. <br> (Pictures 1\& 2) |  | Consideration be given to installing ADA compatible ramps along the roadway in conjunction future roadway projects. |  |  | X |  |  | X |
|  |  |  |  |  |  |  |  |  |


| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 2 | General comment - Sign installations. Many of the signs along the road are installed as "bendaway" rather than "breakaway." Many installed as "breakaway" are installed incorrectly with the stub too far out of the ground or on the wrong side of the post. It was noted that many of the signalized intersections have hinged "STOP" signs on the side street approaches to New Jersey Ave. It was stated by the local team members that these signs are used to supplement the stop condition when the signals are operated in the flashing mode in the off season or during power outages which we were told occur with some frequency. (Pictures 3\&4) |  | Consideration should be given to inventorying the method of sign installation along the entire road and taking steps to properly install all signs as "breakaway" in accordance with the most current NJDOT standards and the MUTCD. |  |  | X |  | X |  |
|  |  | PICTURE 3: <br> 20 Minute Parking sign in Tree South of Crocus Road Non-Breakaway Post <br> PICTURE 5: <br> Reserved Parking Sign Post Non-Breakaway, South of Palm Road |  | PIC <br> Breakaway <br> Lincoln <br> on Non-Bre <br> Post, <br> Columbi | 4: <br> AT <br> NUE <br> 6: <br> ORN <br> AY <br> OF <br> AD |  |  |  |


| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 3 | General comment- all parking prohibition signs along the road should be install at a 45 degree angle to the road. (Pictures 5 \& 6) |  | Reinstall or adjust all parking prohibition signs to be 45 degrees to the road. | X |  |  | X |  |  |
| 4 | General comment- statutory parking prohibitions are not being enforced along the roadway. | To the extent practical enforce statutory parking prohibitions. |  | X |  |  | X |  |
| 5 | General comment- some of the street name signs along the road are worn. | Municipal officials should consider inventorying the street name signs and replace those noted to be worn to comply with current MUTCD standards. |  |  | X |  |  | X |
| 6 | General comment- local officials stated that the signal progression along the road was not good. The team members concur with this observation. | Consideration be given to evaluating the signal progression along the roadway to determine what improvements can be made. |  |  | X |  | X |  |
| 7 | General Comment- many of the one way roads are signed with a single double sided "ONE WAY" signs on a sign post instead of the standard installation of two "ONE WAY" signs with one installed on either side of the sign post. (Pictures 7 \& 8) | Revise all installations to standard method of signing. | X |  |  | X |  |  |
| PICTURE 7: <br> One (1) One-WAy Sign <br> PICTURE 8: Mounted Instead of Back- <br> One Way Sign Obscured to-Back Mount, Nonby Tree Line at Breakaway Post At ROSEMARY ROAD Primrose Avenue |  |  |  |  |  |  |  |  |


| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 8 | General comment- Orth-Rodgers at the request of the county has previously reviewed all of the vehicular yellow, all red intervals and pedestrian clearance times at all of the traffic signal along this section of New Jersey Avenue (621) |  |  |  |  |  |  |  |  |
| 9 | The following locations had "DO NOT ENTER" signs installed back to back on the same post as the "STOP" sign, with the "DO NOT ENTER" sign being larger then the "STOP" sign. <br> NORTHBOUND SIDE- <br> Fern Road on a non-breakaway post. <br> Rosemary Road on a non-breakaway post. <br> Wisteria Road on a non-breakaway post. <br> Juniper Avenue on a non-breakaway post. <br> SOUTHBOUND SIDE <br> Forget-Me-Not Road on a nonbreakaway post. <br> Crocus Road on a non-breakaway post. <br> Columbine Road on a non-breakaway post. <br> Poplar Avenue on a non-breakaway post. | Install 36" x 36" "STOP" signs. Replace all non-breakaway posts with breakaway posts. Replace those signs indicated as worn or undersized unless otherwise noted | X |  |  | X |  |  |


| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 10 | The following location had inlets located within the crosswalk-handicap ramp area: <br> Rambler Road-southeast corner. |  | Consideration be given to investigating what can be done to either relocate the inlets out of the handicapped area or to revise the handicapped area to eliminate the conflict. |  | X |  | X |  |  |
| 11 | Inlet grates which are not bicycle safe were noted at the following locations. <br> Two on the southeast corner and two on the northeast corner of Fern Road. <br> PICTURE 9: <br> Inlet Grate not Bicycle Safe Grate, SOUTHEAST CORNER OF Fern Road <br> Two on the southeast corner and two on the northeast corner of Columbine Road. <br> Northeast and southeast corners of Magnolia Avenue. <br> Northeast and southeast corners of Poplar Avenue. <br> Northeast corner of Jupiter Avenue. | Consideration be given to replacing all of the inlet grates with bicycle safe grates. |  | X |  |  |  | X |


| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 12 | The following locations had sign which are installed on non-breakaway posts. <br> NORTHBOUND SIDE <br> Worn "North 621" sign south of Primrose Dive. <br> Worn "STOP" sign at Myrtle Road. <br> Worn "STOP" sign at Lotus Road. <br> Handicap parking sign north of Lotus Road. <br> Worn "SPEED LIMIT 25" north of Palm Road. <br> "ONE WAY" sign at Fern Road. <br> "ONE WAY" sign on the southeast corner of Forget-Me- Not Road. <br> "LEFT LANE MUST TURN LEFT" just north of Forget-Me- Not Road. <br> "ONE WAY" on the southeast corner of Rosemary Road. |  | Re-install sign on break-away posts. Replace those signs indicated as worn, damaged, defaced or undersized unless otherwise noted. Install any missing supplemental sign plates. Trim tree or relocate those indicated as obstructed by tree branches. <br> Attempt to find new location closer to New Jersey Ave (CR 621) to improve visibility. |  |  | X |  | X |  |


| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 12 | Continued- |  |  |  |  | X |  | X |  |
|  | "20 MINUTE PARKING 8AM-8PM" just south of Columbine Road. |  |  |  |  |  |  |  |
|  | "ONE WAY" sign on the southeast corner of Columbine Road. |  |  |  |  |  |  |  |
|  | Worn "20 MINUTE PARKING" sign north of Columbine Road. |  |  |  |  |  |  |  |
|  | "20 MINUTE PARKING" sign north of Columbine Road. |  |  |  |  |  |  |  |
|  | "NO PARKING DRIVEWAY" and "NO PARKING WHEN ROAD IS SNOW COVERED" signs north of Columbine Road. |  |  |  |  |  |  |  |
|  | "ONE WAY" sign on the southeast corner of Wisteria Road. |  |  |  |  |  |  |  |
|  | Worn "STOP" sign on the northeast corner of Wisteria Road. |  |  |  |  |  |  |  |
|  | "20 MINUTE PARKING 8AM-8 PM" sign north of Wisteria Road. |  |  |  |  |  |  |  |
|  | Worn "SPEED LIMIT 25" sign north of Wisteria Road. |  |  |  |  |  |  |  |
|  | "20 MINUTE PARKING 8AM-8 PM" sign south of Sweet Briar Road. |  |  |  |  |  |  |  |




| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 12 | Continued- |  |  |  |  | X |  | X |  |
|  | Worn "NO PARKING HERE TO CORNER" south of Cresse Road. |  |  |  |  |  |  |  |
|  | Hinged "STOP" sign on the northeast corner of Spencer Avenue. |  |  |  |  |  |  |  |
|  | "HOLIDAY BEACH STATION SHOPPING" sign north of Spencer. Also, sign installed too low. | Consider removing sign and post. |  |  |  |  |  |  |
|  | Worn"STOP" sign on the northeast corner of Spicer Avenue. |  |  |  |  |  |  |  |
|  | "WILDWOOD HISTORICAL <br> MUSEUM" sign on the northwest corner of Spicer Avenue. | Consider removing sign and post. |  |  |  |  |  |  |
|  | "HOLIDAY BEACH STATION SHOPPING" sign south of Garfield. Consider removing sign and post. |  |  |  |  |  |  |  |
|  | "STOP" sign on the northeast corner of Garfield Avenue. |  |  |  |  |  |  |  |
|  | Pedestrian warning symbol sign with diagonal arrow plate at Lincoln Avenue. |  |  |  |  |  |  |  |
|  | Worn"STOP" sign on the Lincoln Avenue approach. |  |  |  |  |  |  |  |
|  | Worn and defaced "HOLIDAY BEACH STATION SHOPPING" sign north of Lincoln. | Consider removing sign and post. |  |  |  |  |  |  |



| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 12 | Continued |  |  |  |  | X |  | X |  |
|  | "NO PARKING BUS STOP" north of Glenwood. |  |  |  |  |  |  |  |
|  | Worn "WEST CR 614" with arrow to the left sign assembly north of Glenwood Avenue. |  |  |  |  |  |  |  |
|  | Damaged "LEFT LANE MUST TURN LEFT" sign south of Magnolia Avenue. |  |  |  |  |  |  |  |
|  | Worn "NO PARKING BUS STOP" sign south of Magnolia Avenue. |  |  |  |  |  |  |  |
|  | Worn school crossing warning symbol sign on the southeast corner of Magnolia Avenue. Also, diagonal arrow sign is missing. | Install missing diagonal arrow plate. |  |  |  |  |  |  |
|  | Worn "ONE WAY" sign and worn "DO NOT ENTER" sign on the southeast corner of Magnolia Avenue. |  |  |  |  |  |  |  |
|  | Hinged "STOP" sign on the northeast corner of Magnolia Avenue. |  |  |  |  |  |  |  |
|  | Worn "NO TURN ON RED" sign on the northeast corner of Magnolia Avenue. |  |  |  |  |  |  |  |
|  | Worn school crossing warning symbol sign on the northeast corner of Magnolia Avenue. Also, diagonal arrow sign is missing. | Install missing diagonal arrow plate. |  |  |  |  |  |  |



| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 12 | Continued- |  |  |  |  | X |  | X |  |
|  | SOUTHBOUND SIDE |  |  |  |  |  |  |  |
|  | "WELCOME TO THE CREST" on the southwest corner of Cresse Road. |  |  |  |  |  |  |  |
|  | Worn "SPEED LIMIT 25" south of Cresse Road. |  |  |  |  |  |  |  |
|  | "20 MINUTE PARKING 8AM-8 PM" sign south of Morning Glory Road. |  |  |  |  |  |  |  |
|  | "ONE WAY" sign on the northwest corner of Morning Glory Road. |  |  |  |  |  |  |  |
|  | "20 MINUTE PARKING 8AM-8 PM" sign south of Morning Glory Road. |  |  |  |  |  |  |  |
|  | "20 MINUTE PARKING 8AM-8 PM" sign south of Morning Glory Road. |  |  |  |  |  |  |  |
|  | Worn "DO NOT ENTER" and "ONE WAY" signs on the northwest corner of Buttercup Road. |  |  |  |  |  |  |  |
|  | Worn "STOP" sign on the southwest corner of Buttercup Road. |  |  |  |  |  |  |  |
|  | "20 MINUTE PARKING 8AM-8 PM" sign south of Buttercup Road. |  |  |  |  |  |  |  |
|  | "20 MINUTE PARKING 8AM-8 PM" sign and "NO PARKING WHEN ROAD IS SNOW COVERED" sign south of Buttercup Road. |  |  |  |  |  |  |  |



| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 12 | Continued- |  |  |  |  | X |  | X |  |
|  | "20 MINUTE PARKING 8AM-8 PM" sign south of Aster Road. |  |  |  |  |  |  |  |
|  | "NO TURN ON RED "sign on the southwest corner of Cardinal Road. |  |  |  |  |  |  |  |
|  | "NO PARKING WHEN ROAD IS SNOW COVERED" just north of Sweet Briar Road. |  |  |  |  |  |  |  |
|  | "NO TURN ON RED "sign on the southwest corner facing the Sweet Briar Road approach. |  |  |  |  |  |  |  |
|  | Worn "SPEED LIMIT 25 "on the northwest corner of Wisteria Road. |  |  |  |  |  |  |  |
|  | "ONE WAY" sign on the northwest corner of Wisteria Road. |  |  |  |  |  |  |  |
|  | "NO PARKING WHEN ROAD IS SNOW COVERED" just south of Wisteria Road. |  |  |  |  |  |  |  |
|  | "ONE WAY" sign on the northwest corner of Columbine Road. |  |  |  |  |  |  |  |
|  | Worn "STOP" sign on the southwest corner of Columbine Road |  |  |  |  |  |  |  |
|  | "ONE WAY" sign on the southwest corner of Rosemary Road. |  |  |  |  |  |  |  |
|  | "ONE WAY" sign on the northwest corner of Rosemary Road. |  |  |  |  |  |  |  |



| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 12 | Continued- |  |  |  |  | X |  | X |  |
|  | Worn "TRUCK ROUTE" sign and Worn "SOUTH CR 621" sign assembly just north of $26^{\text {th }}$ Avenue. |  |  |  |  |  |  |  |
|  | Hinged "STOP" sign on the southeast corner of $26^{\text {th }}$ Avenue. |  |  |  |  |  |  |  |
|  | "ONE HALF HOUR PARKING 8AM12 MIDNIGHT" sign south of $26^{\text {th }}$ Street. |  |  |  |  |  |  |  |
|  | School crossing advance warning sign south of Poplar Avenue. Also, "AHEAD" plate is missing. Sign is hidden in trees. | Install "AHEAD" plate and consider relocation. |  |  |  |  |  |  |
|  | Worn school crossing warning symbol sign on the northwest corner of Magnolia Avenue. Also, diagonal arrow sign is missing. | Install diagonal arrow plate. |  |  |  |  |  |  |
|  | Worn school crossing advance warning sign south of Magnolia Avenue. Also, "AHEAD" plate is missing. | Install "AHEAD" plate. |  |  |  |  |  |  |
|  | "CURB YOUR DOG" sign south of Magnolia Avenue. | Consider removing sign and post. |  |  |  |  |  |  |
|  | "LEFT LANE MUST TURN LEFT" sign north of Glenwood. |  |  |  |  |  |  |  |


| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 12 | Continued- |  |  |  |  | X |  | X |  |
|  | Worn school crossing warning symbol sign on the northwest corner of Glenwood Avenue. Also, diagonal arrow sign is missing. | Install missing diagonal arrow plate. |  |  |  |  |  |  |
|  | Worn "DO NOT ENTER" sign and worn "ONE WAY" signs on the northwest corner of Glenwood Avenue. |  |  |  |  |  |  |  |
|  | Worn "DO NOT ENTER" sign, worn "ONE WAY" signs and worn school crossing warning symbol sign on the southwest corner of Glenwood Ave. Diagonal arrow sign is missing from the school crossing warning symbol sign. | Install missing diagonal arrow plate. |  |  |  |  |  |  |
|  | Worn "CR 621" sign south of Glenwood Avenue. |  |  |  |  |  |  |  |
|  | "NO PARKING ANY TIME" on the northwest corner of Pine Avenue. |  |  |  |  |  |  |  |
|  | Worn "DO NOT ENTER" sign and worn "ONE WAY" signs on the northwest corner of Pine Avenue. |  |  |  |  |  |  |  |
|  | Worn "DO NOT ENTER" sign and worn "ONE WAY" signs on the southwest corner of Pine Avenue. |  |  |  |  |  |  |  |
|  | Worn "HOLIDAY BEACH STATION SHOPPING" sign on the northwest corner of Wildwood Avenue. | Consider removing sign and post. |  |  |  |  |  |  |
|  | "LEFT LANE MUST TURN LEFT" sign north of Oak Avenue. |  |  |  |  |  |  |  |


| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 12 | Continued |  |  |  |  | X |  | X |  |
|  | Hinged "STOP" sign on the southwest corner of Oak Avenue. |  |  |  |  |  |  |  |
|  | Hinged "STOP" sign on the southwest corner of Schellenger Avenue. |  |  |  |  |  |  |  |
|  | "NO PARKING ANYTIME" sign south of Schellenger Avenue. |  |  |  |  |  |  |  |
|  | Pedestrian crossing warning symbol sign on the northwest corner of Lincoln Avenue. |  |  |  |  |  |  |  |
|  | "STOP" sign on the southeast corner of Lincoln Avenue. |  |  |  |  |  |  |  |
|  | Worn "STOP" sign on the southeast corner of Garfield Avenue. |  |  |  |  |  |  |  |
|  | "WILDWOOD HISTORICAL <br> MUSEUM" sign on the northwest corner of Garfield Avenue. |  |  |  |  |  |  |  |
|  | Worn "STOP" sign on the southeast corner of Spicer Avenue. |  |  |  |  |  |  |  |




| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 13 | Rambler Road-Park Boulevard Continued <br> The lane use configuration along the southbound New Jersey Avenue (CR 621) approach to the intersection consists of an exclusive left turn lane and two through lanes with two receiving lanes on the far side of the intersection. The receiving lanes on the far side of the intersection are significantly offset from the through lanes along the southbound approach. <br> "NO TURN ON RED" sign facing the Park Boulevard approach is worn as is the "DO NOT ENTER" sign mounted on the back of the "NO TURN ON RED" sign. |  | Consideration be given to evaluating the need for the exclusive left turn lane along southbound New Jersey Avenue (CR 621). If the exclusive left turn lane is not needed the pavement marking could be modified to reflect this change easing the offset for the through lanes. <br> Replace both signs. | X | X |  | X |  | X |



| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 15 | Rosemary Road- <br> Signalized Intersection <br> General comment- The traffic signal at this intersection consist of a three pole layout with pole mounted vehicular type indications used to control pedestrians. Signal does not meet current standards of MUTCD. |  | Consideration be given to installing WALK_DONT WALK pedestrian indication indications at the intersection. |  |  | X |  | X |  |
| 16 | Northbound side- Crosswalk across Columbine Road has been paved over. | Re-install crosswalk | X |  |  | X |  |  |
| 17 | Northbound side- there is no painted crosswalk across New Jersey Avenue (CR 621) at Wisteria Road. | Considering be given to installing crosswalk. | X |  |  | X |  |  |
| 18 | Northbound side- The easterly approach of Wisteria Road is one way westbound. There are no "DO NOT ENTER" signs supplementing the one way signs at the intersection. | Install the necessary "DO NOT ENTER" signs at the intersection to conform to the signing for the other one way roads intersecting New Jersey Avenue (CR 621). | X |  |  | X |  |  |



| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 20 | Cardinal RoadSignalized intersection <br> General comment- the signal design at this intersection consist of a two pole layout with two mast arms on each pole. <br> There is a service road just east of the New Jersey Avenue (CR 621) easterly curb line. There are no signal indications on the far side of the service road to define the stop line along the Cardinal Road easterly approach which is located on the far side of the service road. The installation lacks pedestrian indications. Some pedestrian movements at the intersection lack a readily visible indication. The signal design at the intersection does not conform to MUTCD requirements and will require a new installation to bring it into conformance. <br> There are handicap ramps on only two corners of the intersection. |  | Consideration be given to installing a complete new signal installation at the intersection. <br> Consideration be given to installing the missing two handicap ramps at the intersection. |  | X | X |  | X | X |


| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 21 | Aster Road- <br> Signalized intersection <br> General comment- the signal design at this intersection consist of a two pole layout with two mast arms on each pole. <br> There is a service road just east of the New Jersey Avenue (CR 621) easterly curb line. There are no signal indications on the far side of the service road to define the stop line along the Aster Road easterly approach which is located on the far side of the service road. The installation lacks pedestrian indications. Some pedestrian movements at the intersection lack a readily visible indication. The signal design at the intersection does not conform to MUTCD requirements and will require a new installation to bring it into conformance. <br> There are handicap ramps on only three of the four corners of the intersection. |  | Consideration be given to installing a complete new signal installation at the intersection. <br> Consideration be given to installing the missing handicap ramp at the intersection. |  | X | X |  | X | X |


| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 22 | Heather RoadSignalized intersection General comment- the signal design at this intersection consist of a two pole layout with two mast arms on each pole. Signal does not appear to meet the current standards of MUTCD. <br> There are no WALK-DONT WALK pedestrian indications at the intersection. Some pedestrian movements at the intersection lack a readily visible indication. <br> Right turn on red is prohibited from the northbound New Jersey Avenue (CR 621) approach to the intersection. The need for the prohibition was questioned by some members of the team. |  | Consideration be given to upgrading the signal design to include pedestrian indications. <br> Consideration be given to evaluation the need to retain the existing right turn on red prohibition for the northbound New Jersey Avenue (CR 621) approach to the intersection. | X |  | X | X | X |  |
|  |  | PICTURE 17: <br> Folding Stop Sign us with signal at Heath ROAD |  |  |  |  |  |  |
| 23 | Northbound side- Lavender Road easterly approach to the intersectionpartially blacked out stop line approximately 10 feet east of the existing stop line. | Consideration be given to removing the partially blacked out stop line. | X |  |  | X |  |  |


| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 24 | Southbound side- Columbine Road westerly approach to the intersectionpartially blacked out stop line approximately 10 feet west of the existing stop line. |  | Consideration be given to removing the partially blacked out stop line. | X |  |  | X |  |  |
| 25 | Southbound side- northwest corner of Lotus Road- stub of pipe in sidewalk area tripping hazard. (Picture 18) | Consideration be given to contacting the local officials regarding correcting the tripping hazard. | X |  |  | X |  |  |



PICTURE 18:
Tripping Hazard at
Lotus Road Northwest
CORNER


| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 28 | Spencer AvenueSignalized intersection General comment- the signal design at this intersection consist of a three pole layout with the two poles supporting two mast arms and the third supporting a pole mounted vehicular type indication used to control pedestrians. Signal does not appear to meet the current standards of MUTCD. <br> There is no signal pole on the northwest corner of the intersection. There are no WALK-DONT WALK pedestrian indications at the intersection. The signal installation uses vehicular indications to control pedestrian movements. Some pedestrian movements at the intersection lack a readily visible indication. |  | Consideration be given to installing WALK_DONT WALK pedestrian indications at the intersection. |  |  | X |  | X |  |
| 29 | Spicer Avenue-Paving at the intersection has obliterated the stop line and crosswalks on the Spicer Avenue approaches. | Re-install obliterated pavement markings. | X |  |  | X |  |  |
| 30 | Northbound side-Lincoln Avenue has a pedestrian crossing warning symbol sign with a diagonal arrow. There is no advance pedestrian crossing symbol warning sign with ahead plate. | Install advance pedestrian crossing symbol warning sign and "AHEAD" plate at appropriate distance in advance of Lincoln Avenue. | X |  |  | X |  |  |


| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 31 | Schellenger Avenue Signalized intersection General comment- the traffic signal at this intersection consist of a four pole layout with countdown pedestrian indications. The signal appears to meet the minimum requirements of the MUTCD. |  |  |  |  |  |  |  |  |
| 32 | Oak Avenue Signalized intersection General comment- the traffic signal at this intersection consist of a four pole layout with countdown pedestrian indications. The signal appears to meet the minimum requirements of the MUTCD. |  |  |  |  |  |  |  |
| 33 | Wildwood AvenueSignalized intersection General comment- the traffic signal at this intersection consist of a four pole layout with countdown pedestrian indications. The signal appears to meet the minimum requirements of the MUTCD. <br> There are handicap ramps on only two of the four corners of the intersection. | Consideration be given to installing the two missing handicap ramps. |  | X |  |  | X |  |


| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 34 | Glenwood Avenue Signalized intersection <br> General comment- the traffic signal at this intersection consist of a four pole layout with countdown pedestrian indications. The signal appears to meet the minimum requirements of the MUTCD. <br> There are handicap ramps on only two of the four corners of the intersection. <br> Mast arm mounted "NO TURN ON RED" sign facing northbound traffic is worn. |  | Consideration be given to installing the two missing handicap ramps. <br> Replace with new sign. | X | X |  | X | X |  |
| 35 | Magnolia Avenue Signalized intersection General comment- the traffic signal at this intersection consist of a four pole layout with countdown pedestrian indications. The signal appears to meet the minimum requirements of the MUTCD. <br> There are handicap ramps on only two of the four corners of the intersection. | Consideration be given to installing the two missing handicap ramps. |  | X |  |  | X |  |
| 36 | Northbound side- "CR 621" sign on a lighting pole north of Magnolia Avenue is worn. | Replace with new sign. | X |  |  | X |  |  |



| SAFETY ISSUE |  | REMEDIAL ACTION | LEVEL OF EFFORT REQUIRED |  |  | POTENTIAL SAFETY BENEFIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| 39 | Southbound side- worn "CR 621" with arrow sign assembly north of Magnolia |  | Replace with new sign and post. | X |  |  | X |  |  |
| 40 | Southbound side- south of Glenwood Avenue- junction box in sidewalk area possible tripping hazard. | Consideration be given to eliminating the tripping hazard. |  | X |  | X |  |  |
| 41 | Southbound side- school crossing symbol warning sign with ahead plate south of Schellenger Avenue installed on a breakaway post however the stub is too far above the ground. | Correct breakaway post installation. | X |  |  | X |  |  |
| NIGHTTIME FIELD VIEW IDENTIFIED THE FOLLOWING SAFETY ISSUES |  |  |  |  |  |  |  |  |
| 42 | General comment- deficiencies observed in the nighttime field view but already noted in the daytime comments are not repeated in this section. |  |  |  |  |  |  |  |
| 43 | General comment- Pavement markings and lighting along road are in adequate condition other than those previously mentioned. |  |  |  |  |  |  |  |
| 44 | Southbound side-"ONE WAY" sign at Forget-Me-Not Road is worn. | Replace worn sign | X |  |  | X |  |  |
| 45 | Southbound "DO NOT ENTER" sign on NW corner of Glenwood Ave is worn. | Replace with new sign. | X |  |  | X |  |  |
| 46 | Southbound side- at Rambler Road. The county suggested exploring another possibility for easing the offset for the southbound through lanes. The elimination of existing left turn lane and revising the lane configuration southbound to an exclusive left turn lane and one through lane. The team members concur with this comment. | The county should investigate this suggestion in more detail. |  | X |  |  | X |  |
| 47 | Southbound side- Worn "SPEED LIMIT 25" on southeast corner of Palm Avenue. | Replace with new sign | X |  |  | X |  |  |
| 48 | Northbound side- "NO TURN ON RED" sign on southeast corner of Aster Ave. | Replace with new sign | X |  |  | X |  |  |

## Recommendations

As stated earlier, the intent of the road safety assessment process is to conduct a formal examination of highway features and the surrounding environment that increase the potential for crashes and identify countermeasures that will reduce (or eliminate) the probability of such crashes. The safety issues identified during the conduct of this assessment and included in this report have been organized to provide the convenience and flexibility necessary to allow the implementation of the safety improvements as time and budget limitations allow. To the extent possible, the findings have been separated into line items so that the improvements can be implemented independently as appropriate. Clearly, consolidating a number of the safety recommendations will reduce the overall cost of improvements. We recommend that the appropriate management staff review the findings and decide which items can be completed in the immediate future (within one year). Many of the deficiencies can be corrected in the short term if the roadway owners dedicate both the time and financial resources to the task. The Level of Effort (an estimate of expenditures and man hours) indicated on the finding sheets of the report represent the team's best effort at categorizing each item.

The findings of the report with the greatest potential for reducing the crash experience along the road appear to be items \#19 (the installation of a new traffic signal at Sweet Briar Road), 20(the installation of a new traffic signal at Cardinal Road) and 21 (the installation of a new traffic signal at Aster Road). The presence of the service road at these three intersections leading us to believe that they would benefit the most from the installation of new traffic signals better designed to meet the needs of these complicated intersections. Item \# 13, the replacement or upgrading of the traffic signal at Rambler Road-Park Avenue and its related pedestrian enhancements, is also an item that would contribute to potential overall safety of the road.

Implementing Items \#1 (the installation of ADA compatible handicap ramps along the entire road), 2 (inventorying the method of sign installation and correcting nonconforming sign installations), 5 (replacing worn street name signs) and 6 (evaluating the signal progression) which are all general comments would significantly contribute to the
overall safe operation of the road. Item \# 11, the installation of bicycle safe inlet grates (six (6) of the crashes or $15 \%$ of the crashes on the road involved bicyclist) should also be a priority item for implementation.

Unfortunately, with many roads and many of the assessments we have conducted, there is no easy quick-fix solution to many of the crash patterns. While the safety assessment focuses on roadway features, enforcement is still a crucial component of safety on a road. Enforcement discourages the motorist from becoming lax in obeying or observing the traffic regulations along the road. Just as resources must be allocated to the physical improvements of the road, they must also be allocated to enforcement to maintain the safe operation of the road.

The opinions found in the findings of this Safety Assessment report are those of the Safety Assessment Team, as a whole, and not necessarily the opinions of the SJTPO or the individual team members.

## Appendix A

## Crash Data Summary Sheets

NEW JERSEY AVENUE (CR 621)
MP 4.19-5.05, 5.70-6.37
WILDWOOD CREST BOROUGH-WILDWOOD CITY
CRASH SUMMARY 2008-2010
TOTAL-39 CRASHES

## Month

| Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 3 |  | 2 | 2 | 5 | 15 | 6 | 3 | 1 | 1 | 0 |


| AM <br> Midnight - Noon | Number of of Day <br> Crashes | PM <br> Noon- Midnight |  | Number of <br> Crashes | Day of Week <br> Number of <br> Crashes |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Midnight -1:00 |  | $12: 00-1300$ |  | Monday | 5 |  |
| $1: 00-2: 00$ |  | $1300-1400$ | 1 | Tuesday | 7 |  |
| $2: 00-3: 00$ |  | $1400-1500$ | 5 | Wednesday | 4 |  |
| $3: 00-4: 00$ |  | $1500-1600$ | 2 | Thursday | 5 |  |
| $4: 00-5: 00$ | 1 | $1600-1700$ | 1 | Friday | 5 |  |
| $5: 00-6: 00$ |  | $1700-1800$ | 3 | Saturday | 5 |  |
| $6: 00-7: 00$ | 1 | $1800-1900$ | 2 | Sunday | 8 |  |
| $7: 00-8: 00$ | 1 | $1900-2000$ | 1 |  |  |  |
| $8: 00-9: 00$ | 2 | $2000-2100$ |  |  |  |  |
| $9: 00-10: 00$ | 5 | $2100-2200$ | 2 |  |  |  |
| $10: 00-11: 00$ | 5 | $2200-2300$ | 3 |  |  |  |
| $11: 00-12$ Noon | 2 | $2300-2400$ | 2 |  |  |  |

DAY
30
NIGHT $\underline{9}$
DRY 36
WET 2 SNOWY_
ICY
OTHERS 1 (UNKNOWN)
CLEAR 38
RAIN $1 \quad$ SNOW
FOG $\qquad$
INJURY $\underline{17}$
NON-INJURY $2 \underline{22}$
FATAL $\underline{0}$

| Right Angle | Same Direction | Left Turn | Right Turn | Same Direction-Side <br> Swipe |
| :---: | :---: | :---: | :---: | :---: |
| 12 | 8 | 1 | 3 |  |
| Fixed Object | Head On | Other | Pedestrian | Bike |
| 2 | 1 | 2 | 0 | 6 |

Parking Related 4

| Year | Number of <br> Crashes |
| :--- | :---: |
| 2003 | 27 |
| 2004 | 28 |
| 2005 | 33 |
| 2006 | 27 |
| 2007 | 19 |
| 2008 | 11 |
| 2009 | 17 |
| 2010 | 11 |
| 2011 | 2 |
| Grand Total | $\mathbf{1 7 5}$ |
| 2008-2010 Total | $\mathbf{3 9}$ |


| Month | Number of Crashes by Year |  |  |  |  |  |  | Grand Total | $\begin{gathered} \text { 2008-2010 } \\ \text { Total } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 20032004 | 20052006 | 2007 | 2008 | 2009 | 2010 | 2011 |  |  |
| J anuary |  |  |  | 1 |  |  |  | 1 | 1 |
| February |  |  |  | 3 |  |  |  | 3 | 3 |
| March |  |  |  |  |  |  |  |  |  |
| April |  |  |  |  |  |  |  | 0 | 0 |
| May |  |  |  | 2 |  |  |  | 2 | 2 |
| June |  |  |  | 4 |  |  |  | 4 | 4 |
| July |  |  |  | 10 |  |  |  | 10 | 10 |
| August |  |  |  | 10 |  |  |  | 10 | 10 |
| September |  |  |  | 4 |  |  |  | 4 | 4 |
| October |  |  |  | 3 |  |  |  | 3 | 3 |
| November |  |  |  | 1 |  |  |  | 1 | 1 |
| December |  |  |  | 1 |  |  |  | 1 | 1 |
| Grand Total | 00 | 00 | 0 | 39 | 0 | 0 | 0 | 39 | 39 |


| Day of Week | Number of Crashes by Year |  |  |  |  |  |  |  |  | Grand Total | $\begin{gathered} \text { 2008-2010 } \\ \text { Total } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |  |  |
| Sunday |  |  |  |  |  | 8 |  |  |  | 8 | 8 |
| Monday |  |  |  |  |  | 5 |  |  |  | 5 | 5 |
| Tuesday |  |  |  |  |  | 7 |  |  |  | 7 | 7 |
| Wednesday |  |  |  |  |  | 4 |  |  |  | 4 | 4 |
| Thursday |  |  |  |  |  | 5 |  |  |  | 5 | 5 |
| Friday |  |  |  |  |  | 5 |  |  |  | 5 | 5 |
| Saturday |  |  |  |  |  | 5 |  |  |  | 5 | 5 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 39 | 0 | 0 | 0 | 39 | 39 |



| Road Surface Condition | Number of Crashes by Year |  |  |  |  |  |  |  |  | Grand Total | $\begin{aligned} & \text { 2008-2010 } \\ & \text { Total } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |  |  |
| Dry |  |  |  |  |  | 36 |  |  |  | 36 | 36 |
| Wet |  |  |  |  |  | 2 |  |  |  | 2 | 2 |
| Snowy |  |  |  |  |  |  |  |  |  | 0 | 0 |
| Icy |  |  |  |  |  |  |  |  |  | 0 | 0 |
| Slush |  |  |  |  |  |  |  |  |  | 0 | 0 |
| Water (Standing/Moving) |  |  |  |  |  |  |  |  |  | 0 | 0 |
| Sand, Mud, Dirt |  |  |  |  |  |  |  |  |  | 0 | 0 |
| Unknown |  |  |  |  |  | 1 |  |  |  | 1 | 1 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 39 | 0 | 0 | 0 | 39 | 39 |


| Weather Condition | Number of Crashes by Year |  |  |  |  |  |  | Grand Total | $\begin{aligned} & \text { 2008-2010 } \\ & \text { Total } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 20032004 | 20052006 | 2007 | 2008 | 2009 | 2010 | 2011 |  |  |
| Clear |  |  |  | 38 |  |  |  | 38 | 38 |
| Rain |  |  |  |  |  |  |  | 0 | 0 |
| Snow |  |  |  |  |  |  |  | 0 | 0 |
| Fog/Smog/Smoke |  |  |  |  |  |  |  | 0 | 0 |
| Overcast |  |  |  |  |  |  |  | 0 | 0 |
| Sleet/Hail/Freezing Rain |  |  |  | 1 |  |  |  | 1 | 1 |
| Grand Total | 00 | 00 | 0 | 39 | 0 | 0 | 0 | 39 | 39 |



| Severity | Number of Crashes by Year |  |  |  |  |  |  |  |  | Grand Total | $\begin{aligned} & \text { 2008-2010 } \\ & \text { Total } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |  |  |
| Fatal |  |  |  |  |  |  |  |  |  | 0 | 0 |
| Injury |  |  |  |  |  | 17 |  |  |  | 17 | 17 |
| Property Damage Only |  |  |  |  |  | 22 |  |  |  | 22 | 22 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 39 | 0 | 0 | 0 | 39 | 39 |


| Crash Type 2003 | Number of Crashes by Year |  |  |  |  |  | 2010 | 2011 | Grand Total | $\begin{gathered} \text { 2008-2010 } \\ \text { Total } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |  |  |  |  |
| Same Direction - Rear End |  |  |  |  | 8 |  |  |  | 8 | 8 |
| Same Direction - Side Swipe |  |  |  |  | 3 |  |  |  | 3 | 3 |
| Right Angle |  |  |  |  | 12 |  |  |  | 12 | 12 |
| Opposite Direction - Head On, Angular |  |  |  |  | 1 |  |  |  | 1 | 1 |
| Opposite Direction - Side Swipe |  |  |  |  |  |  |  |  | 0 | 0 |
| Struck Parked Vehicle |  |  |  |  | 4 |  |  |  | 4 | 4 |
| Left Turn / U Turn |  |  |  |  |  |  |  |  | 0 | 0 |
| Backing |  |  |  |  | 1 |  |  |  | 1 | 1 |
| Encroachment |  |  |  |  |  |  |  |  | 0 | 0 |
| Overturned |  |  |  |  |  |  |  |  | 0 | 0 |
| Fixed Object |  |  |  |  | 2 |  |  |  | 2 | 2 |
| Animal |  |  |  |  |  |  |  |  | 0 | 0 |
| Pedestrain |  |  |  |  |  |  |  |  | 0 | 0 |
| Pedalcyclist |  |  |  |  | 6 |  |  |  | 6 | 6 |
| Non-fixed Object |  |  |  |  |  |  |  |  | 0 | 0 |
| Other |  |  |  |  | 1 |  |  |  | 1 | 1 |
| Grand Total 0 | 0 | 0 | 0 | 0 | 38 | 0 | 0 | 0 | 38 | 38 |


| Nearest Cross Street | Number of Crashes by Year |  |  |  |  |  |  |  |  | Grand Total | $\begin{aligned} & \text { 2008-2010 } \\ & \text { Total } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |  |  |
| NEW JERSEY AVENUE |  |  |  |  |  | 1 |  |  |  | 1 | 1 |
| LOTUS ROAD |  |  |  |  |  | 1 |  |  |  | 1 | 1 |
| PALM ROAD |  |  |  |  |  |  |  |  |  | 0 | 0 |
| 100 EAST PALM ROAD |  |  |  |  |  |  |  |  |  | 0 | 0 |
| FERN ROAD |  |  |  |  |  | 1 |  |  |  | 1 | 1 |
| FORGET-ME-NOT ROAD |  |  |  |  |  |  |  |  |  | 0 | 0 |
| ROSEMARY ROAD |  |  |  |  |  |  |  |  |  | 0 | 0 |
| COLUMBINE ROAD |  |  |  |  |  | 2 |  |  |  | 2 | 2 |
| SWEET BRIAR ROAD |  |  |  |  |  |  |  |  |  | 0 | 0 |
| CARDINAL ROAD |  |  |  |  |  | 3 |  |  |  | 3 | 3 |
| ASTER ROAD |  |  |  |  |  | 2 |  |  |  | 2 | 2 |
| HEATHER ROAD |  |  |  |  |  | 1 |  |  |  | 1 | 1 |
| LAVENDER ROAD |  |  |  |  |  | 2 |  |  |  | 2 | 2 |
| BUTTERCUP ROAD |  |  |  |  |  |  |  |  |  | 0 | 0 |
| MORNING GLORY ROAD |  |  |  |  |  |  |  |  |  | 0 | 0 |
| CRESSE AVENUE |  |  |  |  |  | 1 |  |  |  | 1 |  |
|  |  |  |  |  |  |  |  |  |  | 0 | 0 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 14 | 13 |


| Crash Type | 2003 | Number of Crashes by Year |  |  |  |  |  | 2010 | 2011 | Grand Total | $\begin{aligned} & \text { 2008-2010 } \\ & \text { Total } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2004 | 200 | 2006 | 2007 | 2008 | 2009 |  |  |  |  |
| Same Direction - Rear End | 1 | 0 | 3 | 2 | 1 | 0 | 2 | 0 | 0 | 9 | 2 |
| ASTER ROAD | 1 |  | 1 |  |  |  | 1 |  |  | 3 | 1 |
| COLUMBINE ROAD |  |  | 1 |  |  |  |  |  |  | 1 | 0 |
| CRESSE AVENUE |  |  | 1 |  |  |  | 1 |  |  | 2 | 1 |
| HEATHER ROAD |  |  |  |  | 1 |  |  |  |  | 1 | 0 |
| ROSEMARY ROAD |  |  |  | 1 |  |  |  |  |  | 1 | 0 |
| SWEET BRIAR ROAD |  |  |  | 1 |  |  |  |  |  | 1 | 0 |
| Same Direction - Side Swipe | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 5 | 1 |
| ASTER ROAD |  |  | 1 |  |  |  |  |  |  | 1 | 0 |
| CARDINAL ROAD |  |  |  |  | 1 |  |  |  |  | 1 | 0 |
| COLUMBINE ROAD |  |  |  |  |  |  |  | 1 |  | 1 | 1 |
| FORGET-ME-NOT RD |  |  | 1 |  |  |  |  |  |  | 1 | 0 |
| SWEET BRIAR ROAD | 1 |  |  |  |  |  |  |  |  | 1 | 0 |
| Right Angle | 1 | 1 | 3 | 2 | 2 | 1 | 2 | 3 | 1 | 16 | 6 |
| ASTER ROAD |  |  | 1 |  |  |  |  | 1 |  | 2 | 1 |
| CARDINAL ROAD |  |  |  |  |  |  | 1 |  |  | 1 | 1 |
| COLUMBINE ROAD |  |  |  |  |  |  | 1 |  |  | 1 | 1 |
| CRESSE AVENUE |  |  | 1 |  | 1 |  |  |  |  | 2 | 0 |
| FERN ROAD |  |  |  |  |  |  |  | 1 |  | 1 | 1 |
| HEATHER ROAD |  |  | 1 | 1 |  |  |  |  |  | 2 | 0 |
| LAVENDER ROAD |  |  |  |  |  | 1 |  | 1 | 1 | 3 | 2 |
| LOTUS ROAD |  | 1 |  |  |  |  |  |  |  | 1 | 0 |
| MORNING GLORY ROAD | 1 |  |  |  |  |  |  |  |  | 1 | 0 |
| SWEET BRIAR ROAD |  |  |  | 1 | 1 |  |  |  |  | 2 | 0 |
| Opposite Direction - Head On, | ngular |  |  |  |  |  |  |  |  | 0 | 0 |
| Opposite Direction - Side Swip |  |  |  |  |  |  |  |  |  | 0 | 0 |
| Struck Parked Vehicle | 0 | 2 | 1 | 2 | 0 | 0 | 1 | 1 | 1 | 8 | 2 |
| CARDINAL ROAD |  |  | 1 | 1 |  |  |  | 1 | 1 | 4 | 1 |
| CRESSE AVENUE |  | 1 |  |  |  |  |  |  |  | 1 | 0 |
| NEW J ERSEY AVENUE |  |  |  |  |  |  | 1 |  |  | 1 | 1 |
| PALM ROAD |  | 1 |  | 1 |  |  |  |  |  | 2 | 0 |
| Left Turn / U Turn | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| SWEET BRIAR ROAD |  |  |  | 1 |  |  |  |  |  | 1 | 0 |
| Backing | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 1 |
| HEATHER ROAD |  |  |  |  |  |  |  | 1 |  | 1 | 1 |
| NEW JERSEY AVENUE | 1 |  |  |  |  |  |  |  |  | 1 | 0 |
| Encroachment |  |  |  |  |  |  |  |  |  | 0 | 0 |
| Overturned |  |  |  |  |  |  |  |  |  | 0 | 0 |
| Fixed Object | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 1 |
| 100 E. PALM ROAD |  | 1 |  |  |  |  |  |  |  | 1 | 0 |
| BUTTERCUP ROAD | 1 |  |  |  |  |  |  |  |  | 1 | 0 |
| CARDINAL ROAD |  |  |  |  |  |  | 1 |  |  | 1 | 1 |
| Animal |  |  |  |  |  |  |  |  |  | 0 | 0 |
| Pedestrain |  |  |  |  |  |  |  |  |  | 0 | 0 |
| Pedalcyclist | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 4 | 1 |
| COLUMBINE ROAD |  |  |  |  | 1 |  |  |  |  | 1 | 0 |
| CRESSE AVENUE |  |  |  |  | 1 |  |  |  |  | 1 | 0 |
| HEATHER ROAD |  |  |  |  | 1 |  |  |  |  | 1 | 0 |
| LOTUS ROAD |  |  |  |  |  |  |  | 1 |  | 1 | 1 |
| Non-fixed Object |  |  |  |  |  |  |  |  |  | 0 | 0 |
| Railcar - Vehicle |  |  |  |  |  |  |  |  |  | 0 | 0 |
| Other | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| ASTER ROAD |  | 1 |  |  |  |  |  |  |  | 1 | 0 |
| CARDINAL ROAD | 1 |  |  |  |  |  |  |  |  | 1 | 0 |
| CRESSE AVENUE | 1 |  |  |  |  |  |  |  |  | 1 | 0 |
| FORGET-ME-NOT ROAD |  | 1 |  |  |  |  |  |  |  | 1 | 0 |
| Grand Total | 7 | 6 | 9 | 7 | 7 | 1 | 6 | 7 | 2 | 52 | 14 |


| Year | Number of <br> Crashes |
| :--- | :---: |
| 2003 | 20 |
| 2004 | 22 |
| 2005 | 24 |
| 2006 | 20 |
| 2007 | 12 |
| 2008 | 10 |
| 2009 | 11 |
| 2010 | 4 |
| Grand Total | $\mathbf{1 2 3}$ |
| 2008-2010 Total | $\mathbf{2 5}$ |


| Month | Number of Crashes by Year |  |  |  |  |  |  |  | Grand Total | 2008-2010 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |  | Total |
| J anuary | 2 | 1 |  | 1 |  |  |  |  | 4 | 0 |
| February | 1 |  | 2 |  |  | 1 |  |  | 4 | 1 |
| March |  |  |  |  |  |  |  |  |  | 0 |
| April | 2 | 1 | 1 | 2 |  |  |  |  | 6 | 0 |
| May | 1 | 3 | 3 | 1 |  | 1 |  | 1 | 10 | 2 |
| J une | 1 | 5 | 2 | 3 | 2 | 2 |  |  | 15 | 2 |
| July |  | 3 | 3 | 2 | 3 | 3 |  |  | 14 | 3 |
| August | 5 | 2 | 4 | 5 | 3 |  | 7 | 1 | 27 | 8 |
| September | 5 | 4 | 4 | 3 | 1 |  | 3 | 1 | 21 | 4 |
| October | 2 | 2 | 3 | 2 | 2 | 2 |  | 1 | 14 | 3 |
| November | 1 |  |  | 1 |  | 1 |  |  | 3 | 1 |
| December |  | 1 | 2 |  | 1 |  | 1 |  | 5 | 1 |
| Grand Total | 20 | 22 | 24 | 20 | 12 | 10 | 11 | 4 | 123 | 25 |

$\left.\begin{array}{lccccccccccc}\text { Day of Week } & \mathbf{2 0 0 3} & \mathbf{2 0 0 4} & \mathbf{2 0 0 5} & \mathbf{2 0 0 6} & \mathbf{2 0 0 7} & \mathbf{2 0 0 8} & \mathbf{2 0 0 9} & \mathbf{2 0 1 0} & \text { Grand Total } & \text { 2008-2010 } \\ \text { Total }\end{array}\right]$

| Time of Day | Number of Crashes by Year |  |  |  |  |  |  |  | Grand Total | 2008-2010 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |  | Total |
| 12:00 MI DNI GHT-1:00 AM |  |  | 1 |  |  |  |  |  | 1 | 0 |
| 1:00-2:00 AM | 1 |  |  | 1 |  |  |  |  | 2 | 0 |
| 2:00-3:00 AM | 1 |  |  |  |  |  |  |  | 1 | 0 |
| 3:00-4:00 AM | 2 | 1 |  | 1 |  |  |  |  | 4 | 0 |
| 4:00-5:00 AM |  |  |  |  | 1 |  | 1 |  | 2 | 1 |
| 5:00-6:00 AM |  |  |  |  |  |  |  |  | 0 | 0 |
| 6:00-7:00 AM |  | 1 |  |  |  |  |  |  | 1 | 0 |
| 7:00-8:00 AM |  | 1 |  | 1 |  | 1 |  |  | 3 | 1 |
| 8:00-9:00 AM | 1 |  |  |  | 1 |  |  |  | 2 | 0 |
| 9:00-10:00 AM | 1 |  | 2 |  |  | 1 | 1 | 1 | 6 | 3 |
| 10:00-11:00 AM |  | 3 | 3 | 2 |  | 2 | 1 | 1 | 12 | 4 |
| 11:00AM-12:00 NOON | 1 | 3 |  | 1 | 1 |  | 1 | 1 | 8 | 2 |
| 12:00-1:00 PM | 1 | 2 | 4 |  | 4 |  |  |  | 11 | 0 |
| 1:00-2:00 PM |  | 2 | 1 | 1 | 2 |  |  |  | 6 | 0 |
| 2:00-3:00 PM |  |  | 2 |  |  | 1 |  | 1 | 4 | 2 |
| 3:00-4:00 PM | 3 |  | 1 | 1 |  | 1 |  |  | 6 | 1 |
| 4:00-5:00 PM | 1 | 3 | 4 |  |  |  | 1 |  | 9 | 1 |
| 5:00-6:00 PM |  |  | 1 | 2 |  |  | 1 |  | 4 | 1 |
| 6:00-7:00 PM | 3 | 2 | 1 | 4 |  |  | 2 |  | 12 | 2 |
| 7:00-8:00 PM |  |  | 2 | 3 |  |  | 1 |  | 6 | 1 |
| 8:00-9:00 PM | 1 | 1 |  | 1 | 2 |  |  |  | 5 | 0 |
| 9:00-10:00 PM | 2 |  | 1 | 1 | 1 | 1 |  |  | 6 | 1 |
| 10:00-11:00 PM | 1 | 1 | 1 |  |  | 2 | 1 |  | 6 | 3 |
| 11:00PM-12:00 MIDNIGHT | 1 | 2 |  | 1 |  | 1 | 1 |  | 6 | 2 |
| Grand Total | 20 | 22 | 24 | 20 | 12 | 10 | 11 | 4 | 123 | 25 |


| Road Surface | Number of Crashes by Year |  |  |  |  |  |  |  | Grand Total | 2008-2010 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Condition | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |  | Total |
| Dry | 17 | 19 | 24 | 16 | 12 | 10 | 11 | 4 | 113 | 25 |
| Wet | 2 | 3 |  | 4 |  |  |  |  | 9 | 0 |
| Snowy | 1 |  |  |  |  |  |  |  | 1 | 0 |
| Grand Total | 20 | 22 | 24 | 20 | 12 | 10 | 11 | 4 | 123 | 25 |


| Weather Condition | Number of Crashes by Year |  |  |  |  |  |  |  | Grand Total | 2008-2010 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |  | Total |
| Clear | 18 | 19 | 24 | 16 | 12 | 10 | 11 | 4 | 114 | 25 |
| Rain | 1 | 3 |  | 2 |  |  |  |  | 6 | 0 |
| Snow | 1 |  |  |  |  |  |  |  | 1 | 0 |
| Overcast |  |  |  | 2 |  |  |  |  | 2 | 0 |
| Sleet/Hail/Freezing Rain |  |  |  |  |  |  |  |  | 0 | 0 |
| Grand Total | 20 | 22 | 24 | 20 | 12 | 10 | 11 | 4 | 123 | 25 |


| Light Condition | Number of Crashes by Year |  |  |  |  |  |  |  | Grand Total | 2008-2010 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | $2005$ | 2006 | 2007 | 2008 | 2009 | 2010 |  | Total |
| Daylight | 11 | 16 | 20 | 14 | 8 | 6 | 8 | 4 | 87 | 18 |
| Dawn |  |  |  |  |  |  |  |  | 0 | 0 |
| Dusk |  |  |  | 1 | 1 |  |  |  | 2 | 0 |
| Dark - Street Lights Off |  |  |  |  |  |  |  |  | 0 | 0 |
| Dark - No Street Lights |  | 1 |  |  |  |  |  |  | 1 | 0 |
| Dark - Street Lights On/ continuous | 9 | 5 | 4 | 5 | 2 | 4 | 2 |  | 31 | 6 |
| Dark - Street Lights On/ spot |  |  |  |  | 1 |  | 1 |  | 2 | 1 |
| Grand Total | 20 | 22 | 24 | 20 | 12 | 10 | 11 | 4 | 123 | 25 |


| Severity | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 8}$ | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 0}$ | Grand Total2008-2010 <br> Total |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal |  |  |  | 1 |  |  |  |  | 1 | 0 |  |
| Injury | 16 | 16 | 5 | 6 | 3 | 6 | 4 | 1 | 35 | 11 |  |
| Property Damage Only | $\mathbf{2 0}$ | $\mathbf{2 2}$ | $\mathbf{2 4}$ | $\mathbf{2 0}$ | $\mathbf{2 0}$ | $\mathbf{1 2}$ | $\mathbf{1 0}$ | $\mathbf{1 1}$ | $\mathbf{4}$ | $\mathbf{1 2 3}$ | $\mathbf{2 5}$ |
| Grand Total |  |  |  |  |  |  |  |  |  | $\mathbf{2 5}$ |  |


| Crash Type | Number of Crashes by Year |  |  |  |  |  |  |  | Grand Total | 2008-2010 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |  | Total |
| Same Direction - Rear End |  | 3 | 5 | 3 | 7 | 3 | 3 |  | 24 | 6 |
| Same Direction - Side Swipe | 5 | 1 | 4 | 3 | 2 |  | 1 | 1 | 17 | 2 |
| Right Angle | 3 | 7 | 5 | 6 | 1 | 2 | 2 | 2 | 28 | 6 |
| Opposite Direction - Head On / Angular |  |  |  | 1 |  |  | 1 |  | 2 | 1 |
| Opposite Direction - Side Swipe |  |  |  |  |  |  |  |  | 0 | 0 |
| Struck Parked Vehicle | 5 | 1 | 3 |  | 1 | 1 | 1 |  | 12 | 2 |
| Left Turn / U Turn | 2 | 1 | 1 |  | 1 | 1 |  |  | 6 | 1 |
| Backing |  | 2 | 1 | 1 |  |  |  |  | 4 | 0 |
| Encroachment |  |  |  |  |  |  |  |  | 0 | 0 |
| Overturned |  |  |  |  |  |  |  |  | 0 | 0 |
| Fixed Object |  |  |  | 2 |  |  | 1 |  | 3 | 1 |
| Animal |  |  |  |  |  |  |  |  | 0 | 0 |
| Pedestrain |  |  |  | 3 |  |  |  |  | 3 | 0 |
| Pedalcyclist |  |  |  | 1 |  | 2 | 2 | 1 | 6 | 5 |
| Non-fixed Object |  |  |  |  |  |  |  |  | 0 | 0 |
| Railcar - Vehicle |  |  |  |  |  |  |  |  | 0 | 0 |
| Other | 4 | 5 | 4 |  |  | 1 |  |  | 14 | 1 |
| Unknown | 1 | 2 | 1 |  |  |  |  |  | 4 | 0 |
| Grand Total | 20 | 22 | 24 | 20 | 12 | 10 | 11 | 4 | 123 | 25 |


| Nearest Cross Street | Number of Crashes by Year |  |  |  |  |  |  |  | Grand Total | 2008-2010 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |  | Total |
| 3801 NEW J ERSEY AVENUE |  | 1 |  |  |  |  |  |  | 1 | 0 |
| 3711 NEW J ERSEY AVENUE | 1 | 1 |  |  |  |  |  |  | 2 | 0 |
| 3701 NEW J ERSEY AVENUE |  | 1 |  |  |  |  |  |  | 1 | 0 |
| RITE AID PARKING LOT |  | 1 |  |  |  |  |  |  | 1 | 0 |
| 3401 NEW J ERSEY AVENUE | 1 |  |  |  |  |  |  |  | 1 | 0 |
| 3200 NEW J ERSEY AVENUE |  |  | 2 |  |  |  |  |  | 2 | 0 |
| WAWA PARKI NG LOT |  | 1 |  |  |  |  |  |  | 1 | 0 |
| 100 EAST MAPLE AVE |  |  |  |  | 1 |  |  |  | 1 | 0 |
| PRIVATE PROPERTY | 1 | 3 | 1 |  |  |  |  |  | 5 | 0 |
| YOUNG AVENUE | 1 |  | 2 | 2 |  | 2 |  |  | 7 | 2 |
| SPENCER AVENUE | 2 | 1 |  |  |  |  | 1 |  | 4 | 1 |
| SPICER AVENUE | 1 | 3 | 1 | 1 |  |  | 1 | 1 | 8 | 2 |
| GARFIELD AVENUE |  |  | 2 | 1 | 3 |  | 2 |  | 8 | 2 |
| LINCOLN AVENUE | 1 |  | 2 | 2 |  | 1 |  |  | 6 | 1 |
| SCHELLENGER AVENUE | 5 |  | 3 | 2 | 2 | 1 |  | 1 | 14 | 2 |
| OAK AVENUE |  | 1 |  | 3 |  |  | 3 |  | 7 | 3 |
| WI LDWOOD AVENUE | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 12 | 4 |
| PINE AVENUE |  |  | 2 | 1 | 1 | 1 |  |  | 5 | 1 |
| MAPLE AVENUE | 1 |  | 2 | 1 |  | 1 |  |  | 5 | 1 |
| GLENWOOD AVENUE | 1 | 1 | 1 | 1 | 2 | 1 |  |  | 7 | 1 |
| MAGNOLIA AVENUE |  | 2 |  |  | 1 |  | 1 |  | 4 | 1 |
| POPLAR AVENUE | 2 | 2 |  |  |  |  |  |  | 4 | 0 |
| J UNIPER AVENUE |  | 1 | 1 | 1 |  |  | 1 | 1 | 5 | 2 |
| 26TH STREET | 1 | 2 | 3 | 3 | 1 | 2 |  |  | 12 | 2 |
| Grand Total | 20 | 22 | 24 | 20 | 12 | 10 | 11 | 4 | 123 | 25 |

## Appendix B

## Crash Data Charts

New Jersey Avenue (CR 621) MP 4.19-5.05, 5.70-6.37
Crash Occurrence by Year (2003-2010)








New Jersey Avenue (CR 621) MP 4.19-5.05, 5.70-6.37
Crash Occurrence by Severity (2008-2010)




## Appendix C

## Traffic Counts

# Orth-Rodgers \& Associates, Inc. 

810 Bear Tavern Road, Suite 307

West Trenton, NJ 08628
File Name : 009_08-11-11
Site Code : 00000000
Start Date : 8/11/2011
Page No : 1

| Groups Printed- Unshifted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | NJ Southbound |  |  |  |  | 26th <br> Westbound |  |  |  |  | NJ Northbound |  |  |  |  | 26th <br> Eastbound |  |  |  |  |  |
| Start Time | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 10:00 AM | 4 | 89 | 7 | 2 | 102 | 8 | 6 | 12 | 4 | 30 | 2 | 78 | 5 | 1 | 86 | 2 | 5 | 3 | 6 | 16 | 234 |
| 10:15 AM | 8 | 83 | 4 | 0 | 95 | 8 | 4 | 12 | 2 | 26 | 2 | 78 | 7 | 1 | 88 | 2 | 9 | 12 | 6 | 29 | 238 |
| 10:30 AM | 4 | 85 | 5 | 1 | 95 | 9 | 8 | 11 | 7 | 35 | 1 | 67 | 9 | 2 | 79 | 2 | 3 | 4 | 7 | 16 | 225 |
| 10:45 AM | 7 | 93 | 7 | 0 | 107 | 18 | 15 | 7 | 5 | 45 | 3 | 90 | 12 | 4 | 109 | 3 | 11 | 9 | 2 | 25 | 286 |
| Total | 23 | 350 | 23 | 3 | 399 | 43 | 33 | 42 | 18 | 136 | 8 | 313 | 33 | 8 | 362 | 9 | 28 | 28 | 21 | 86 | 983 |
| 11:00 AM | 7 | 109 | 3 | 5 | 124 | 14 | 13 | 7 | 0 | 34 | 2 | 79 | 10 | 3 | 94 | 2 | 15 | 9 | 0 | 26 | 278 |
| 11:15 AM | 7 | 107 | 3 | 3 | 120 | 12 | 11 | 5 | 5 | 33 | 0 | 69 | 12 | 1 | 82 | 3 | 13 | 6 | 3 | 25 | 260 |
| 11:30 AM | 6 | 104 | 4 | 2 | 116 | 11 | 14 | 5 | 8 | 38 | 1 | 96 | 12 | 13 | 122 | 3 | 13 | 13 | 6 | 35 | 311 |
| 11:45 AM | 6 | 98 | 3 | 7 | 114 | 10 | 11 | 11 | 6 | 38 | 1 | 84 | 15 | 5 | 105 | 2 | 7 | 10 | 2 | 21 | 278 |
| Total | 26 | 418 | 13 | 17 | 474 | 47 | 49 | 28 | 19 | 143 | 4 | 328 | 49 | 22 | 403 | 10 | 48 | 38 | 11 | 107 | 1127 |
| *** BREAK *** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 12:30 PM | 14 | 110 | 3 | 2 | 129 | 10 | 20 | 9 | 1 | 40 | 5 | 102 | 13 | 3 | 123 | 4 | 17 | 11 | 2 | 34 | 326 |
| 12:45 PM | 9 | 103 | 3 | 3 | 118 | 17 | 12 | 8 | 7 | 44 | 1 | 95 | 10 | 0 | 106 | 0 | 10 | 9 | 3 | 22 | 290 |
| Total | 23 | 213 | 6 | 5 | 247 | 27 | 32 | 17 | 8 | 84 | 6 | 197 | 23 | 3 | 229 | 4 | 27 | 20 | 5 | 56 | 616 |
| 01:00 PM | 8 | 88 | 5 | 1 | 102 | 7 | 11 | 8 | 2 | 28 | 3 | 92 | 5 | 1 | 101 | 3 | 13 | 10 | 5 | 31 | 262 |
| 01:15 PM | 10 | 70 | 3 | 0 | 83 | 13 | 12 | 7 | 10 | 42 | 3 | 79 | 6 | 5 | 93 | 2 | 9 | 6 | 3 | 20 | 238 |
| 01:30 PM | 5 | 93 | 2 | 1 | 101 | 14 | 16 | 5 | 9 | 44 | 2 | 79 | 8 | 6 | 95 | 2 | 18 | 6 | 10 | 36 | 276 |
| 01:45 PM | 12 | 93 | 2 | 0 | 107 | 14 | 16 | 14 | 6 | 50 | 3 | 76 | 12 | 1 | 92 | 0 | 10 | 5 | 2 | 17 | 266 |
| Total | 35 | 344 | 12 | 2 | 393 | 48 | 55 | 34 | 27 | 164 | 11 | 326 | 31 | 13 | 381 | 7 | 50 | 27 | 20 | 104 | 1042 |
| 02:00 PM | 5 | 68 | 6 | 0 | 79 | 9 | 6 | 9 | 7 | 31 | 2 | 63 | 13 | 1 | 79 | 5 | 7 | 11 | 5 | 28 | 217 |
| 02:15 PM | 4 | 82 | 3 | 4 | 93 | 11 | 10 | 7 | 8 | 36 | 2 | 77 | 9 | 3 | 91 | 3 | 10 | 8 | 2 | 23 | 243 |
| 02:30 PM | 7 | 86 | 3 | 3 | 99 | 13 | 11 | 6 | 1 | 31 | 4 | 67 | 14 | 0 | 85 | 0 | 3 | 8 | 9 | 20 | 235 |
| 02:45 PM | 6 | 81 | 0 | 9 | 96 | 12 | 12 | 4 | 9 | 37 | 3 | 65 | 10 | 0 | 78 | 2 | 10 | 7 | 5 | 24 | 235 |
| Total | 22 | 317 | 12 | 16 | 367 | 45 | 39 | 26 | 25 | 135 | 11 | 272 | 46 | 4 | 333 | 10 | 30 | 34 | 21 | 95 | 930 |
| 03:00 PM | 7 | 70 | 1 | 0 | 78 | 10 | 15 | 6 | 4 | 35 | 3 | 66 | 11 | 1 | 81 | 2 | 16 | 5 | 6 | 29 | 223 |
| 03:15 PM | 3 | 30 | 1 | 0 | 34 | 6 | 10 | 4 | 2 | 22 | 4 | 39 | 2 | 2 | 47 | 1 | 10 | 8 | 1 | 20 | 123 |
| *** BREAK *** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total | 10 | 100 | 2 | 0 | 112 | 16 | 25 | 10 | 6 | 57 | 7 | 105 | 13 | 3 | 128 | 3 | 26 | 13 | 7 | 49 | 346 |
| 04:00 PM | 10 | 78 | 4 | 6 | 98 | 12 | 17 | 12 | 2 | 43 | 1 | 74 | 13 | 7 | 95 | 1 | 8 | 6 | 9 | 24 | 260 |
| 04:15 PM | 14 | 93 | 4 | 2 | 113 | 10 | 16 | 7 | 6 | 39 | 5 | 81 | 11 | 0 | 97 | 2 | 8 | 12 | 9 | 31 | 280 |
| 04:30 PM | 9 | 86 | 2 | 9 | 106 | 12 | 16 | 11 | 5 | 44 | 3 | 72 | 9 | 1 | 85 | 3 | 18 | 17 | 10 | 48 | 283 |
| 04:45 PM | 10 | 103 | 3 | 5 | 121 | 11 | 26 | 13 | 16 | 66 | 2 | 71 | 12 | 5 | 90 | 3 | 11 | 13 | 7 | 34 | 311 |
| Total | 43 | 360 | 13 | 22 | 438 | 45 | 75 | 43 | 29 | 192 | 11 | 298 | 45 | 13 | 367 | 9 | 45 | 48 | 35 | 137 | 1134 |

# Orth-Rodgers \& Associates, Inc. 

## 810 Bear Tavern Road, Suite 307

West Trenton, NJ 08628
File Name : 009_08-11-11
Site Code : 00000000
Start Date : 8/11/2011
Page No : 2


|  | NJ <br> Southbound |  |  |  |  | 26th <br> Westbound |  |  |  |  | NJ <br> Northbound |  |  |  |  | 26th <br> Eastbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start Time | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total | Peak Hour Analysis From 10:00 AM to 02:45 PM - Peak 1 of 1


| Hour for Ent | rse | Beg | 0: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10:45 AM | 7 | 93 | 7 | 0 | 107 | 18 | 15 | 7 | 5 | 45 | 3 | 90 | 12 | 4 | 109 | 3 | 11 | 9 | 2 | 25 | 286 |
| 11:00 AM | 7 | 109 | 3 | 5 | 124 | 14 | 13 | 7 | 0 | 34 | 2 | 79 | 10 | 3 | 94 | 2 | 15 | 9 | 0 | 26 | 278 |
| 11:15 AM | 7 | 107 | 3 | 3 | 120 | 12 | 11 | 5 | 5 | 33 | 0 | 69 | 12 | 1 | 82 | 3 | 13 | 6 | 3 | 25 | 260 |
| 11:30 AM | 6 | 104 | 4 | 2 | 116 | 11 | 14 | 5 | 8 | 38 | 1 | 96 | 12 | 13 | 122 | 3 | 13 | 13 | 6 | 35 | 311 |
| Total Volume | 27 | 413 | 17 | 10 | 467 | 55 | 53 | 24 | 18 | 150 | 6 | 334 | 46 | 21 | 407 | 11 | 52 | 37 | 11 | 111 | 1135 |
| \% App. Total | 5.8 | 88.4 | 3.6 | 2.1 |  | 36.7 | 35.3 | 16 | 12 |  | 1.5 | 82.1 | 11.3 | 5.2 |  | 9.9 | 46.8 | 33.3 | 9.9 |  |  |
| PHF | . 964 | . 947 | . 607 | . 500 | . 942 | 764 | . 883 | . 857 | . 563 | . 833 | . 500 | 870 | . 958 | 404 | . 834 | . 917 | . 867 | 712 | . 458 | . 793 | . 912 |

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

| Peak Hour for Entire Intersection Begins at 04:30 PM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 04:30 PM | 9 | 86 | 2 | 9 | 106 | 12 | 16 | 11 | 5 | 44 | 3 | 72 | 9 | 1 | 85 | 3 | 18 | 17 | 10 | 48 | 283 |
| 04:45 PM | 10 | 103 | 3 | 5 | 121 | 11 | 26 | 13 | 16 | 66 | 2 | 71 | 12 | 5 | 90 | 3 | 11 | 13 | 7 | 34 | 311 |
| 05:00 PM | 8 | 87 | 5 | 2 | 102 | 16 | 18 | 11 | 4 | 49 | 2 | 83 | 21 | 8 | 114 | 1 | 11 | 12 | 5 | 29 | 294 |
| 05:15 PM | 17 | 113 | 3 | 1 | 134 | 22 | 22 | 9 | 13 | 66 | 3 | 80 | 14 | 4 | 101 | 0 | 14 | 8 | 9 | 31 | 332 |
| Total Volume | 44 | 389 | 13 | 17 | 463 | 61 | 82 | 44 | 38 | 225 | 10 | 306 | 56 | 18 | 390 | 7 | 54 | 50 | 31 | 142 | 1220 |
| \% App. Total | 9.5 | 84 | 2.8 | 3.7 |  | 27.1 | 36.4 | 19.6 | 16.9 |  | 2.6 | 78.5 | 14.4 | 4.6 |  | 4.9 | 38 | 35.2 | 21.8 |  |  |
| PHF | . 647 | . 861 | . 650 | . 472 | . 864 | . 693 | . 788 | . 846 | . 594 | . 852 | . 833 | . 922 | . 667 | . 563 | . 855 | . 583 | . 750 | . 735 | . 775 | . 740 | 919 |

## Orth-R odgers \& Associates, Inc. <br> 810 Bear Tavern Road, Suite 307

West Trenton, NJ 08628
File Name : 011_08-20-11
Site Code : 00000000
Start Date : 8/20/2011
Page No : 1

| Groups Printed- Unshifted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | NJ <br> Southbound |  |  |  |  | 26th <br> Westbound |  |  |  |  | NJ <br> Northbound |  |  |  |  | 26th <br> Eastbound |  |  |  |  |  |
| Start Time | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 10:00 AM | 15 | 129 | 11 | 10 | 165 | 18 | 15 | 12 | 6 | 51 | 1 | 89 | 7 | 7 | 104 | 3 | 13 | 18 | 9 | 43 | 363 |
| 10:15 AM | 5 | 107 | 1 | 10 | 123 | 16 | 12 | 7 | 4 | 39 | 2 | 111 | 9 | 7 | 129 | 4 | 15 | 15 | 21 | 55 | 346 |
| 10:30 AM | 7 | 116 | 2 | 7 | 132 | 14 | 15 | 12 | 7 | 48 | 3 | 87 | 12 | 2 | 104 | 6 | 16 | 10 | 10 | 42 | 326 |
| 10:45 AM | 17 | 95 | 5 | 8 | 125 | 11 | 14 | 12 | 10 | 47 | 3 | 126 | 10 | 6 | 145 | 5 | 15 | 14 | 6 | 40 | 357 |
| Total | 44 | 447 | 19 | 35 | 545 | 59 | 56 | 43 | 27 | 185 | 9 | 413 | 38 | 22 | 482 | 18 | 59 | 57 | 46 | 180 | 1392 |
| 11:00 AM | 11 | 110 | 11 | 6 | 138 | 15 | 23 | 15 | 4 | 57 | 3 | 109 | 10 | 7 | 129 | 3 | 16 | 13 | 13 | 45 | 369 |
| 11:15 AM | 12 | 127 | 7 | 6 | 152 | 19 | 20 | 8 | 8 | 55 | 2 | 107 | 9 | 4 | 122 | 12 | 12 | 18 | 9 | 51 | 380 |
| 11:30 AM | 12 | 104 | 8 | 6 | 130 | 26 | 19 | 10 | 8 | 63 | 6 | 94 | 15 | 18 | 133 | 6 | 26 | 12 | 10 | 54 | 380 |
| 11:45 AM | 9 | 124 | 6 | 5 | 144 | 10 | 21 | 9 | 4 | 44 | 2 | 102 | 24 | 3 | 131 | 4 | 19 | 11 | 10 | 44 | 363 |
| Total | 44 | 465 | 32 | 23 | 564 | 70 | 83 | 42 | 24 | 219 | 13 | 412 | 58 | 32 | 515 | 25 | 73 | 54 | 42 | 194 | 1492 |
| 12:00 PM | 18 | 92 | 2 | 5 | 117 | 15 | 10 | 15 | 0 | 40 | 3 | 113 | 14 | 3 | 133 | 3 | 19 | 7 | 9 | 38 | 328 |
| 12:15 PM | 6 | 79 | 7 | 3 | 95 | 15 | 15 | 10 | 3 | 43 | 5 | 73 | 12 | 3 | 93 | 3 | 17 | 12 | 4 | 36 | 267 |
| *** BREAK *** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total | 24 | 171 | 9 | 8 | 212 | 30 | 25 | 25 | 3 | 83 | 8 | 186 | 26 | 6 | 226 | 6 | 36 | 19 | 13 | 74 | 595 |
| 01:00 PM | 8 | 108 | 4 | 2 | 122 | 9 | 15 | 10 | 9 | 43 | 0 | 71 | 18 | 3 | 92 | 3 | 16 | 7 | 10 | 36 | 293 |
| 01:15 PM | 3 | 94 | 5 | 2 | 104 | 17 | 26 | 9 | 1 | 53 | 2 | 74 | 11 | 5 | 92 | 8 | 19 | 14 | 3 | 44 | 293 |
| 01:30 PM | 5 | 108 | 3 | 8 | 124 | 18 | 13 | 11 | 2 | 44 | 3 | 71 | 10 | 3 | 87 | 3 | 18 | 7 | 10 | 38 | 293 |
| 01:45 PM | 7 | 92 | 6 | 3 | 108 | 15 | 22 | 10 | 5 | 52 | 2 | 101 | 10 | 4 | 117 | 4 | 23 | 6 | 4 | 37 | 314 |
| Total | 23 | 402 | 18 | 15 | 458 | 59 | 76 | 40 | 17 | 192 | 7 | 317 | 49 | 15 | 388 | 18 | 76 | 34 | 27 | 155 | 1193 |
| Grand Total | 135 | 1485 | 78 | 81 | 1779 | 218 | 240 | 150 | 71 | 679 | 37 | 1328 | 171 | 75 | 1611 | 67 | 244 | 164 | 128 | 603 | 4672 |
| Apprch \% | 7.6 | 83.5 | 4.4 | 4.6 |  | 32.1 | 35.3 | 22.1 | 10.5 |  | 2.3 | 82.4 | 10.6 | 4.7 |  | 11.1 | 40.5 | 27.2 | 21.2 |  |  |
| Total \% | 2.9 | 31.8 | 1.7 | 1.7 | 38.1 | 4.7 | 5.1 | 3.2 | 1.5 | 14.5 | 0.8 | 28.4 | 3.7 | 1.6 | 34.5 | 1.4 | 5.2 | 3.5 | 2.7 | 12.9 |  |


|  | NJ <br> Southbound |  |  |  |  | 26th <br> Westbound |  |  |  |  | NJ <br> Northbound |  |  |  |  | 26th <br> Eastbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start Time | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |

Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 11:00 AM

| 11:00 AM | 11 | 110 | 11 | 6 | 138 | 15 | 23 | 15 | 4 | 57 | 3 | 109 | 10 | 7 | 129 | 3 | 16 | 13 | 13 | 45 | 369 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11:15 AM | 12 | 127 | 7 | 6 | 152 | 19 | 20 | 8 | 8 | 55 | 2 | 107 | 9 | 4 | 122 | 12 | 12 | 18 | 9 | 51 | 380 |
| 11:30 AM | 12 | 104 | 8 | 6 | 130 | 26 | 19 | 10 | 8 | 63 | 6 | 94 | 15 | 18 | 133 | 6 | 26 | 12 | 10 | 54 | 380 |
| 11:45 AM | 9 | 124 | 6 | 5 | 144 | 10 | 21 | 9 | 4 | 44 | 2 | 102 | 24 | 3 | 131 | 4 | 19 | 11 | 10 | 44 | 363 |
| Total Volume | 44 | 465 | 32 | 23 | 564 | 70 | 83 | 42 | 24 | 219 | 13 | 412 | 58 | 32 | 515 | 25 | 73 | 54 | 42 | 194 | 1492 |
| \% App. Total | 7.8 | 82.4 | 5.7 | 4.1 |  | 32 | 37.9 | 19.2 | 11 |  | 2.5 | 80 | 11.3 | 6.2 |  | 12.9 | 37.6 | 27.8 | 21.6 |  |  |
| PHF | . 917 | . 915 | . 727 | . 958 | . 928 | . 673 | . 902 | 700 | . 750 | . 869 | . 542 | . 945 | . 604 | . 444 | . 968 | . 521 | . 702 | . 750 | . 808 | . 898 | . 982 |

## Orth-R odgers \& Associates, Inc. <br> 810 Bear Tavern Road, Suite 307

West Trenton, NJ 08628
File Name : 008_08-10-11
Site Code : 00000000
Start Date : 8/10/2011
Page No : 1

|  | Pacific Avenue Southbound |  |  |  |  | Rambler Avenue Westbound |  |  |  |  | Pacific Avenue Northbound |  |  |  |  | Rambler Avenue Eastbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start Time | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 10:00 AM | 4 | 35 | 1 | 1 | 41 | 1 | 9 | 1 | 0 | 11 | 6 | 55 | 2 | 12 | 75 | 2 | 8 | 6 | 1 | 17 | 144 |
| 10:15 AM | 0 | 29 | 1 | 1 | 31 | 2 | 3 | 5 | 3 | 13 | 8 | 63 | 6 | 0 | 77 | 2 | 6 | 4 | 2 | 14 | 135 |
| 10:30 AM | 6 | 36 | 1 | 2 | 45 | 2 | 6 | 4 | 3 | 15 | 3 | 48 | 3 | 2 | 56 | 0 | 9 | 6 | 8 | 23 | 139 |
| 10:45 AM | 0 | 39 | 3 | 0 | 42 | 2 | 2 | 6 | 0 | 10 | 3 | 62 | 1 | 3 | 69 | 4 | 12 | 7 | 8 | 31 | 152 |
| Total | 10 | 139 | 6 | 4 | 159 | 7 | 20 | 16 | 6 | 49 | 20 | 228 | 12 | 17 | 277 | 8 | 35 | 23 | 19 | 85 | 570 |
| 11:00 AM | 3 | 28 | 0 | 1 | 32 | 4 | 7 | 4 | 0 | 15 | 7 | 59 | 4 | 1 | 71 | 2 | 8 | 3 | 2 | 15 | 133 |
| 11:15 AM | 1 | 52 | 0 | 4 | 57 | 0 | 5 | 4 | 4 | 13 | 5 | 45 | 2 | 0 | 52 | 1 | 18 | 5 | 2 | 26 | 148 |
| 11:30 AM | 4 | 53 | 0 | 0 | 57 | 1 | 12 | 7 | 5 | 25 | 1 | 59 | 1 | 0 | 61 | 1 | 13 | 0 | 3 | 17 | 160 |
| 11:45 AM | 4 | 39 | 1 | 6 | 50 | 3 | 6 | 4 | 0 | 13 | 8 | 72 | 2 | 0 | 82 | 2 | 14 | 11 | 3 | 30 | 175 |
| Total | 12 | 172 | 1 | 11 | 196 | 8 | 30 | 19 | 9 | 66 | 21 | 235 | 9 | 1 | 266 | 6 | 53 | 19 | 10 | 88 | 616 |
| 12:00 PM | 3 | 40 | 2 | 0 | 45 | 1 | 3 | 7 | 0 | 11 | 1 | 53 | 1 | 0 | 55 | 0 | 18 | 9 | 2 | 29 | 140 |
| 12:15 PM | 3 | 38 | 0 | 1 | 42 | 7 | 9 | 2 | 4 | 22 | 4 | 73 | 3 | 0 | 80 | 2 | 15 | 9 | 2 | 28 | 172 |
| 12:30 PM | 2 | 39 | 1 | 1 | 43 | 0 | 8 | 2 | 0 | 10 | 4 | 70 | 3 | 4 | 81 | 0 | 11 | 7 | 4 | 22 | 156 |
| 12:45 PM | 1 | 30 | 3 | 2 | 36 | 1 | 4 | 2 | 2 | 9 | 5 | 40 | 2 | 1 | 48 | 3 | 13 | 9 | 5 | 30 | 123 |
| Total | 9 | 147 | 6 | 4 | 166 | 9 | 24 | 13 | 6 | 52 | 14 | 236 | 9 | 5 | 264 | 5 | 57 | 34 | 13 | 109 | 591 |


| *** BREAK *** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01:30 PM | 1 | 30 | 0 | 0 | 31 | 3 | 7 | 2 | 1 | 13 | 1 | 64 | 10 | 2 | 77 | 0 | 10 | 4 | 0 | 14 | 135 |
| 01:45 PM | 2 | 32 | 0 | 0 | 34 | 3 | 8 | 4 | 3 | 18 | 4 | 34 | 4 | 9 | 51 | 0 | 11 | 2 | 1 | 14 | 117 |
| Total | 3 | 62 | 0 | 0 | 65 | 6 | 15 | 6 | 4 | 31 | 5 | 98 | 14 | 11 | 128 | 0 | 21 | 6 | 1 | 28 | 252 |
| 02:00 PM | 2 | 25 | 3 | 5 | 35 | 3 | 2 | 3 | 1 | 9 | 0 | 47 | 5 | 0 | 52 | 1 | 10 | 5 | 1 | 17 | 113 |
| 02:15 PM | 1 | 35 | 1 | 3 | 40 | 0 | 8 | 7 | 2 | 17 | 3 | 56 | 2 | 2 | 63 | 0 | 10 | 8 | 0 | 18 | 138 |
| 02:30 PM | 0 | 40 | 3 | 0 | 43 | 2 | 8 | 4 | 1 | 15 | 3 | 49 | 3 | 1 | 56 | 0 | 10 | 7 | 2 | 19 | 133 |
| 02:45 PM | 3 | 30 | 0 | 2 | 35 | 2 | 6 | 3 | 3 | 14 | 3 | 57 | 3 | 1 | 64 | 1 | 10 | 5 | 4 | 20 | 133 |
| Total | 6 | 130 | 7 | 10 | 153 | 7 | 24 | 17 | 7 | 55 | 9 | 209 | 13 | 4 | 235 | 2 | 40 | 25 | 7 | 74 | 517 |
| 03:00 PM | 0 | 28 | 2 | 0 | 30 | 2 | 5 | 4 | 6 | 17 | 4 | 56 | 2 | 4 | 66 | 0 | 6 | 5 | 0 | 11 | 124 |
| 03:15 PM | 1 | 31 | 1 | 0 | 33 | 2 | 7 | 3 | 1 | 13 | 1 | 72 | 0 | 1 | 74 | 2 | 10 | 4 | 1 | 17 | 137 |
| 03:30 PM | 5 | 32 | 0 | 0 | 37 | 1 | 4 | 3 | 5 | 13 | 8 | 52 | 3 | 0 | 63 | 4 | 14 | 8 | 3 | 29 | 142 |
| 03:45 PM | 2 | 31 | 0 | 2 | 35 | 1 | 4 | 2 | 4 | 11 | 6 | 41 | 2 | 1 | 50 | 1 | 12 | 3 | 2 | 18 | 114 |
| Total | 8 | 122 | 3 | 2 | 135 | 6 | 20 | 12 | 16 | 54 | 19 | 221 | 7 | 6 | 253 | 7 | 42 | 20 | 6 | 75 | 517 |


| *** BREAK *** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 04:30 PM | 0 | 37 | 0 | 2 | 39 | 4 | 4 | 4 | 0 | 12 | 4 | 70 | 2 | 1 | 77 | 2 | 10 | 6 | 1 | 19 | 147 |
| 04:45 PM | 1 | 40 | 3 | 0 | 44 | 3 | 12 | 6 | 3 | 24 | 2 | 72 | 3 | 2 | 79 | 2 | 7 | 8 | 1 | 18 | 165 |
| Total | 1 | 77 | 3 | 2 | 83 | 7 | 16 | 10 | 3 | 36 | 6 | 142 | 5 | 3 | 156 | 4 | 17 | 14 | 2 | 37 | 312 |

## Orth-R odgers \& Associates, Inc. <br> 810 Bear Tavern Road, Suite 307 <br> West Trenton, NJ 08628

File Name : 008_08-10-11
Site Code : 00000000
Start Date : 8/10/2011
Page No : 2
Groups Printed- Unshifted

|  | Pacific Avenue <br> Southbound |  |  |  |  | Rambler Avenue Westbound |  |  |  |  | Pacific Avenue Northbound |  |  |  |  | Rambler Avenue Eastbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start Time | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 05:00 PM | 5 | 49 | 2 | 0 | 56 | 4 | 10 | 4 | 1 | 19 | 2 | 55 | 4 | 0 | 61 | 2 | 5 | 4 | 0 | 11 | 147 |
| 05:15 PM | 2 | 31 | 1 | 4 | 38 | 2 | 10 | 5 | 1 | 18 | 6 | 73 | 4 | 3 | 86 | 3 | 8 | 6 | 1 | 18 | 160 |
| 05:30 PM | 1 | 38 | 3 | 0 | 42 | 5 | 6 | 3 | 5 | 19 | 4 | 71 | 2 | 8 | 85 | 0 | 7 | 6 | 1 | 14 | 160 |
| 05:45 PM | 2 | 39 | 0 | 1 | 42 | 6 | 11 | 2 | 4 | 23 | 5 | 55 | 3 | 8 | 71 | 1 | 7 | 4 | 0 | 12 | 148 |
| Total | 10 | 157 | 6 | 5 | 178 | 17 | 37 | 14 | 11 | 79 | 17 | 254 | 13 | 19 | 303 | 6 | 27 | 20 | 2 | 55 | 615 |
| Grand Total | 59 | 1006 | 32 | 38 | 1135 | 67 | 186 | 107 | 62 | 422 | 111 | 1623 | 82 | 66 | 1882 | 38 | 292 | 161 | 60 | 551 | 3990 |
| Apprch \% | 5.2 | 88.6 | 2.8 | 3.3 |  | 15.9 | 44.1 | 25.4 | 14.7 |  | 5.9 | 86.2 | 4.4 | 3.5 |  | 6.9 | 53 | 29.2 | 10.9 |  |  |
| Total \% | 1.5 | 25.2 | 0.8 | 1 | 28.4 | 1.7 | 4.7 | 2.7 | 1.6 | 10.6 | 2.8 | 40.7 | 2.1 | 1.7 | 47.2 | 1 | 7.3 | 4 | 1.5 | 13.8 |  |


|  | Pacific Avenue Southbound |  |  |  |  | Rambler Avenue Westbound |  |  |  |  | Pacific Avenue Northbound |  |  |  |  | Rambler Avenue Eastbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start Time | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |

Peak Hour Analysis From 10:00 AM to 02:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 11:30 AM

| 11:30 AM | 4 | 53 | 0 | 0 | 57 | 1 | 12 | 7 | 5 | 25 | 1 | 59 | 1 | 0 | 61 | 1 | 13 | 0 | 3 | 17 | 160 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11:45 AM | 4 | 39 | 1 | 6 | 50 | 3 | 6 | 4 | 0 | 13 | 8 | 72 | 2 | 0 | 82 | 2 | 14 | 11 | 3 | 30 | 175 |
| 12:00 PM | 3 | 40 | 2 | 0 | 45 | 1 | 3 | 7 | 0 | 11 | 1 | 53 | 1 | 0 | 55 | 0 | 18 | 9 | 2 | 29 | 140 |
| 12:15 PM | 3 | 38 | 0 | 1 | 42 | 7 | 9 | 2 | 4 | 22 | 4 | 73 | 3 | 0 | 80 | 2 | 15 | 9 | 2 | 28 | 172 |
| Total Volume | 14 | 170 | 3 | 7 | 194 | 12 | 30 | 20 | 9 | 71 | 14 | 257 | 7 | 0 | 278 | 5 | 60 | 29 | 10 | 104 | 647 |
| \% App. Total | 7.2 | 87.6 | 1.5 | 3.6 |  | 16.9 | 42.3 | 28.2 | 12.7 |  | 5 | 92.4 | 2.5 | 0 |  | 4.8 | 57.7 | 27.9 | 9.6 |  |  |
| PHF | . 875 | . 802 | 375 | 292 | . 851 | . 429 | . 625 | . 714 | . 450 | . 710 | 438 | . 880 | 583 | . 000 | . 848 | . 625 | . 833 | . 659 | . 833 | . 867 | . 924 |

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

| Peak Hour for Entire Intersection Begins at 04:45 PM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 04:45 PM | 1 | 40 | 3 | 0 | 44 | 3 | 12 | 6 | 3 | 24 | 2 | 72 | 3 | 2 | 79 | 2 | 7 | 8 | 1 | 18 | 165 |
| 05:00 PM | 5 | 49 | 2 | 0 | 56 | 4 | 10 | 4 | 1 | 19 | 2 | 55 | 4 | 0 | 61 | 2 | 5 | 4 | 0 | 11 | 147 |
| 05:15 PM | 2 | 31 | 1 | 4 | 38 | 2 | 10 | 5 | 1 | 18 | 6 | 73 | 4 | 3 | 86 | 3 | 8 | 6 | 1 | 18 | 160 |
| 05:30 PM | 1 | 38 | 3 | 0 | 42 | 5 | 6 | 3 | 5 | 19 | 4 | 71 | 2 | 8 | 85 | 0 | 7 | 6 | 1 | 14 | 160 |
| Total Volume | 9 | 158 | 9 | 4 | 180 | 14 | 38 | 18 | 10 | 80 | 14 | 271 | 13 | 13 | 311 | 7 | 27 | 24 | 3 | 61 | 632 |
| \% App. Total | 5 | 87.8 | 5 | 2.2 |  | 17.5 | 47.5 | 22.5 | 12.5 |  | 4.5 | 87.1 | 4.2 | 4.2 |  | 11.5 | 44.3 | 39.3 | 4.9 |  |  |
| PHF | . 450 | . 806 | . 750 | . 250 | . 804 | . 700 | . 792 | . 750 | . 500 | . 833 | . 583 | . 928 | . 813 | . 406 | . 904 | . 583 | . 844 | . 750 | . 750 | . 847 | . 958 |

## Orth-R odgers \& Associates, Inc. <br> 810 Bear Tavern Road, Suite 307

West Trenton, NJ 08628
File Name : 010_08-13-11
Site Code : 00000000
Start Date : 8/13/2011
Page No : 1

| Groups Printed- Unshifted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pacific Avenue Southbound |  |  |  |  | Rambler Avenue Westbound |  |  |  |  | Pacific Avenue Northbound |  |  |  |  | Rambler Avenue Eastbound |  |  |  |  |  |
| Start Time | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 10:00 AM | 3 | 59 | 1 | 9 | 72 | 2 | 9 | 5 | 6 | 22 | 8 | 100 | 5 | 5 | 118 | 0 | 18 | 8 | 0 | 26 | 238 |
| 10:15 AM | 1 | 50 | 2 | 5 | 58 | 5 | 18 | 3 | 2 | 28 | 6 | 83 | 6 | 1 | 96 | 1 | 19 | 14 | 5 | 39 | 221 |
| 10:30 AM | 6 | 59 | 1 | 2 | 68 | 1 | 13 | 12 | 3 | 29 | 5 | 83 | 4 | 2 | 94 | 2 | 16 | 11 | 3 | 32 | 223 |
| 10:45 AM | 2 | 48 | 2 | 3 | 55 | 2 | 11 | 3 | 1 | 17 | 5 | 78 | 2 | 12 | 97 | 1 | 17 | 9 | 6 | 33 | 202 |
| Total | 12 | 216 | 6 | 19 | 253 | 10 | 51 | 23 | 12 | 96 | 24 | 344 | 17 | 20 | 405 | 4 | 70 | 42 | 14 | 130 | 884 |
| 11:00 AM | 2 | 51 | 3 | 6 | 62 | 5 | 10 | 4 | 2 | 21 | 5 | 87 | 6 | 9 | 107 | 0 | 11 | 10 | 4 | 25 | 215 |
| 11:15 AM | 5 | 51 | 1 | 3 | 60 | 6 | 10 | 8 | 3 | 27 | 3 | 68 | 2 | 7 | 80 | 2 | 17 | 4 | 3 | 26 | 193 |
| 11:30 AM | 3 | 44 | 0 | 3 | 50 | 3 | 15 | 6 | 5 | 29 | 2 | 82 | 7 | 4 | 95 | 2 | 24 | 6 | 3 | 35 | 209 |
| 11:45 AM | 3 | 66 | 3 | 3 | 75 | 6 | 11 | 5 | 5 | 27 | 8 | 66 | 2 | 6 | 82 | 3 | 17 | 11 | 2 | 33 | 217 |
| Total | 13 | 212 | 7 | 15 | 247 | 20 | 46 | 23 | 15 | 104 | 18 | 303 | 17 | 26 | 364 | 7 | 69 | 31 | 12 | 119 | 834 |
| 12:00 PM | 4 | 51 | 2 | 3 | 60 | 6 | 10 | 4 | 4 | 24 | 6 | 94 | 7 | 1 | 108 | 4 | 14 | 16 | 6 | 40 | 232 |
| 12:15 PM | 4 | 50 | 1 | 0 | 55 | 5 | 9 | 1 | 7 | 22 | 8 | 81 | 5 | 0 | 94 | 3 | 20 | 10 | 13 | 46 | 217 |
| *** BREAK *** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total | 8 | 101 | 3 | 3 | 115 | 11 | 19 | 5 | 11 | 46 | 14 | 175 | 12 | 1 | 202 | 7 | 34 | 26 | 19 | 86 | 449 |
| 01:00 PM | 6 | 48 | 4 | 2 | 60 | 3 | 8 | 5 | 2 | 18 | 4 | 76 | 6 | 1 | 87 | 4 | 17 | 8 | 0 | 29 | 194 |
| 01:15 PM | 3 | 52 | 4 | 1 | 60 | 1 | 9 | 9 | 3 | 22 | 3 | 78 | 2 | 1 | 84 | 1 | 20 | 8 | 2 | 31 | 197 |
| 01:30 PM | 3 | 42 | 2 | 1 | 48 | 4 | 8 | 3 | 2 | 17 | 8 | 76 | 2 | 6 | 92 | 0 | 24 | 7 | 1 | 32 | 189 |
| 01:45 PM | 5 | 45 | 0 | 1 | 51 | 5 | 6 | 4 | 2 | 17 | 3 | 65 | 4 | 4 | 76 | 2 | 15 | 6 | 0 | 23 | 167 |
| Total | 17 | 187 | 10 | 5 | 219 | 13 | 31 | 21 | 9 | 74 | 18 | 295 | 14 | 12 | 339 | 7 | 76 | 29 | 3 | 115 | 747 |
| Grand Total | 50 | 716 | 26 | 42 | 834 | 54 | 147 | 72 | 47 | 320 | 74 | 1117 | 60 | 59 | 1310 | 25 | 249 | 128 | 48 | 450 | 2914 |
| Apprch \% | 6 | 85.9 | 3.1 | 5 |  | 16.9 | 45.9 | 22.5 | 14.7 |  | 5.6 | 85.3 | 4.6 | 4.5 |  | 5.6 | 55.3 | 28.4 | 10.7 |  |  |
| Total \% | 1.7 | 24.6 | 0.9 | 1.4 | 28.6 | 1.9 | 5 | 2.5 | 1.6 | 11 | 2.5 | 38.3 | 2.1 | 2 | 45 | 0.9 | 8.5 | 4.4 | 1.6 | 15.4 |  |


|  | Pacific Avenue Southbound |  |  |  |  | Rambler Avenue Westbound |  |  |  |  | Pacific Avenue Northbound |  |  |  |  | Rambler Avenue Eastbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start Time | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |

Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 10:00 AM

| 10:00 AM | 3 | 59 | 1 | 9 | 72 | 2 | 9 | 5 | 6 | 22 | 8 | 100 | 5 | 5 | 118 | 0 | 18 | 8 | 0 | 26 | 238 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10:15 AM | 1 | 50 | 2 | 5 | 58 | 5 | 18 | 3 | 2 | 28 | 6 | 83 | 6 | 1 | 96 | 1 | 19 | 14 | 5 | 39 | 221 |
| 10:30 AM | 6 | 59 | 1 | 2 | 68 | 1 | 13 | 12 | 3 | 29 | 5 | 83 | 4 | 2 | 94 | 2 | 16 | 11 | 3 | 32 | 223 |
| 10:45 AM | 2 | 48 | 2 | 3 | 55 | 2 | 11 | 3 | 1 | 17 | 5 | 78 | 2 | 12 | 97 | 1 | 17 | 9 | 6 | 33 | 202 |
| Total Volume | 12 | 216 | 6 | 19 | 253 | 10 | 51 | 23 | 12 | 96 | 24 | 344 | 17 | 20 | 405 | 4 | 70 | 42 | 14 | 130 | 884 |
| \% App. Total | 4.7 | 85.4 | 2.4 | 7.5 |  | 10.4 | 53.1 | 24 | 12.5 |  | 5.9 | 84.9 | 4.2 | 4.9 |  | 3.1 | 53.8 | 32.3 | 10.8 |  |  |
| PHF | . 500 | . 915 | . 750 | . 528 | . 878 | . 500 | . 708 | . 479 | . 500 | . 828 | . 750 | . 860 | 708 | 417 | . 858 | . 500 | . 921 | . 750 | . 583 | . 833 | . 929 |

## Appendix D

## Straight Line Diagram




Date last inventoried: August 1999


Date last inventoried: August 1999

