

prepared for



Federal
Highway
Administration

Request for Access Point Approval

Modified Access at
Interstate 95 & State Route 7 /
State Route 1 Interchange



prepared by



Delaware
Department of
Transportation

with



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Consulting Engineers

FINAL

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EXECUTIVE SUMMARY

The purpose of this report is to request approval from FHWA to modify three (3) access locations along I-95 (the Delaware Turnpike) in New Castle County, Delaware at the I-95/SR 1 interchange. The interchange is being modified as part of a series of operational and capacity improvements recommended for the Delaware Turnpike to improve the operational efficiency of the corridor. A related project, the widening of mainline I-95 from four to five lanes in each direction between SR 1 and I-495, is currently under construction and will provide much-needed additional capacity along I-95 north of the interchange. The proposed interchange improvements will provide more-efficient and safe operations through the interchange by separating local and through traffic. The improvements are being proposed because transit and management improvements implemented in the I-95 corridor between 1995 and 2000, although successful, have failed to prevent the Delaware Turnpike from reaching saturated conditions.

The need for the revised design of the I-95/SR 1 interchange is primarily a function of the interchange being unable to accommodate existing traffic volumes as currently designed. Traffic volumes on I-95 increased 178 percent in the project area between 1980 and 2008, causing I-95 to become oversaturated, while traffic volumes approaching the interchange from the south on SR 1 have also increased dramatically following the conversion of SR 7 to a multi-lane expressway (SR 1) between Dover and I-95. Consequently, the I-95/SR 1 interchange experiences congestion during peak periods, with motorists experiencing long queues, significantly increased travel times, and reduced speeds. The interchange ramps have experienced 88 crashes in a 3-year period, with a large number of rear-end crashes occurring due to congestion within the interchange. The current design of the interchange is outdated and substandard, which further contributes to decreased level of service and reduced safety. Conditions at the interchange will continue to deteriorate as traffic demand continues to grow.

The preferred alternative includes two new directional ramps that connect I-95 and SR 1. Ramp A is a two-lane directional (55 mph) ramp that provides a direct connection between southbound I-95 and southbound SR 1. Ramp B is also a directional (55 mph) two-lane ramp that provides the reciprocal movement between northbound SR 1 and northbound I-95. Both ramps are barrier-separated from the local roads, eliminating the conflict between freeway-to-freeway through traffic and local/mall traffic within the interchange. These ramps tie into the mainline widening of I-95 from 4 to 5 lanes and provide improved operations for the heaviest traffic movements at the I-95/SR 1 interchange. Additionally, the design of Ramp B has been modified from the original preferred alternative to give motorists the option of accessing northbound I-95 in the left lane to better position themselves if their ultimate destination is Wilmington (studies show that 75 percent of the Ramp B traffic is destined for Wilmington during the peak periods).

Operational analyses performed using Highway Capacity Software (HCS+) version 5.3 indicate that four (4) movements within the I-95/SR 1 interchange currently operate at LOS F during the peak periods. Despite improvements to the I-95 corridor anticipated from the I-95 widening project (currently under construction), the analyses results indicate that the number of failing movements will increase to nine (9) by the design year of 2030 without the proposed improvements at the I-95/SR 1 interchange. The preferred alternative is expected to provide immediate and lasting benefits over existing conditions by reducing queues along I-95 and SR 1, increasing travel speeds to near free-flow conditions, reducing travel times, and improving the Level of Service of movements within the interchange.

The Delaware Department of Transportation (DelDOT) is developing a comprehensive Transportation Management Plan (TMP) for the preferred alternative to ensure safe and efficient travel through the project area during construction. The TMP includes a Maintenance of Traffic Alternatives Analysis (MOTAA) to develop and evaluate the best combination of construction phasing and temporary traffic control strategies to reduce work zone impacts.

The preferred alternative is consistent with various state, regional, and local plans, and is expected to provide significant operational and safety benefits by modifying three (3) access points along the interstate and eliminating several existing weave conditions.

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I. Introduction

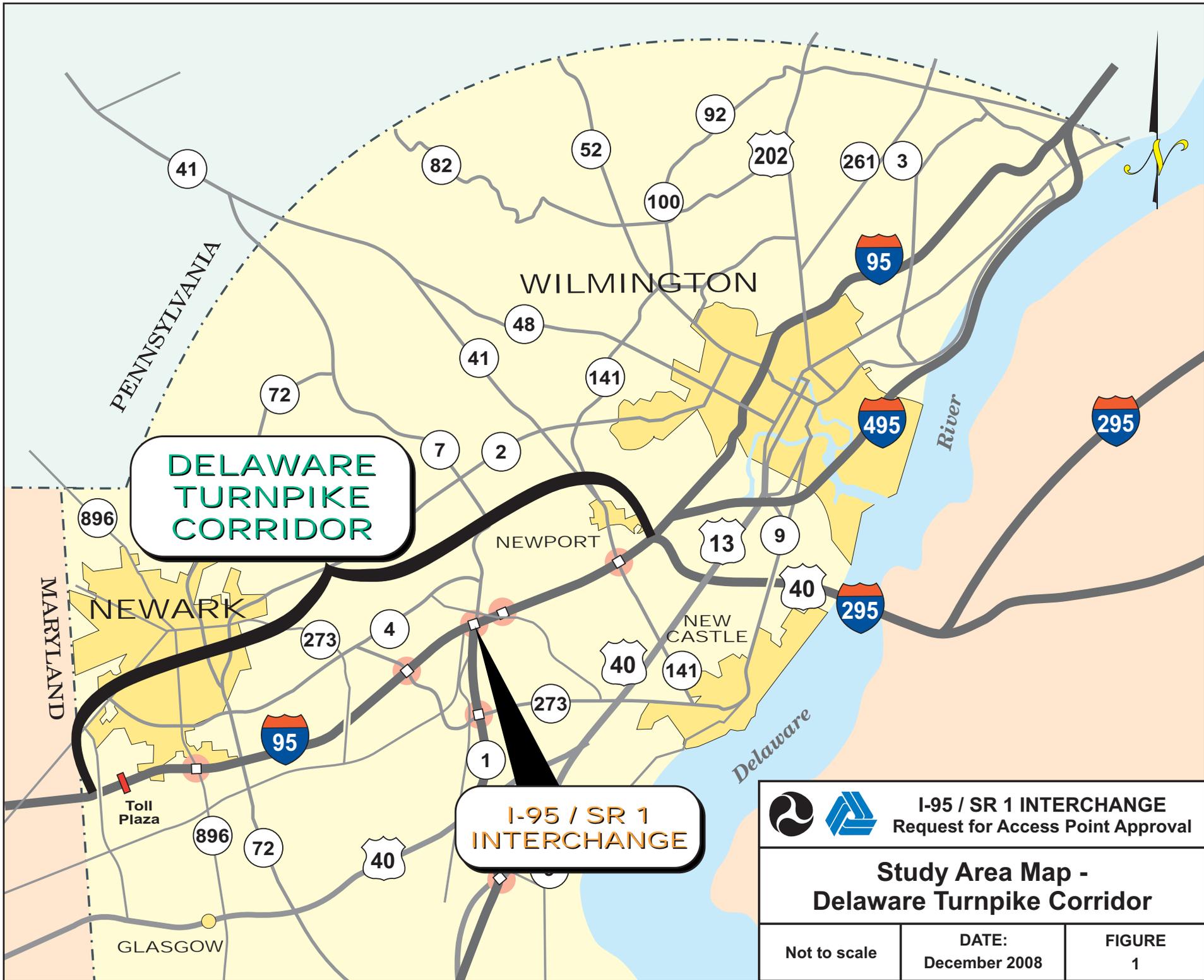
The purpose of this technical report is to request approval from the Federal Highway Administration (FHWA) to modify interstate access along Interstate 95 (Delaware Turnpike) at the existing interchange of I-95 with State Route 7 and State Route 1 in New Castle County, Delaware, as part of the Delaware Turnpike Improvement Program. The interchange improvements were originally part of a larger project that included the widening of I-95 between SR 1 and I-495. A draft Interchange Modification Report (IMR) was prepared and submitted to FHWA in July 2005 that included the interchange improvements and the I-95 widening. Subsequent to that submittal, due to available funding and other policy issues, the Delaware Department of Transportation (DelDOT) decided to move forward with construction of the I-95 widening as a separate project and postpone the interchange improvements until the mainline widening was completed. Since the I-95 widening project did not involve modification to existing interstate access, the IMR was not required at that time, and the draft report submitted in July 2005 was not formally approved.

Despite the postponement of construction of the I-95 / SR 1 interchange improvements, preliminary design on the project continued. With construction of the I-95 mainline widening expected to be completed by early 2009, DelDOT is now ready to re-submit an updated IMR for the I-95 / SR 1 interchange to FHWA for approval. A scoping meeting between the DelDOT, FHWA, and the project team was held on July 11, 2008 to discuss the requirements for this submittal. A copy of the meeting minutes from the scoping meeting is included with this report as **Appendix A**. A draft copy of this report was submitted to FHWA for review in September 2008. This version of the report has been revised per comments received from FHWA on November 25, 2008. Additionally, a point-by-point response to those comments is provided in **Appendix E**.

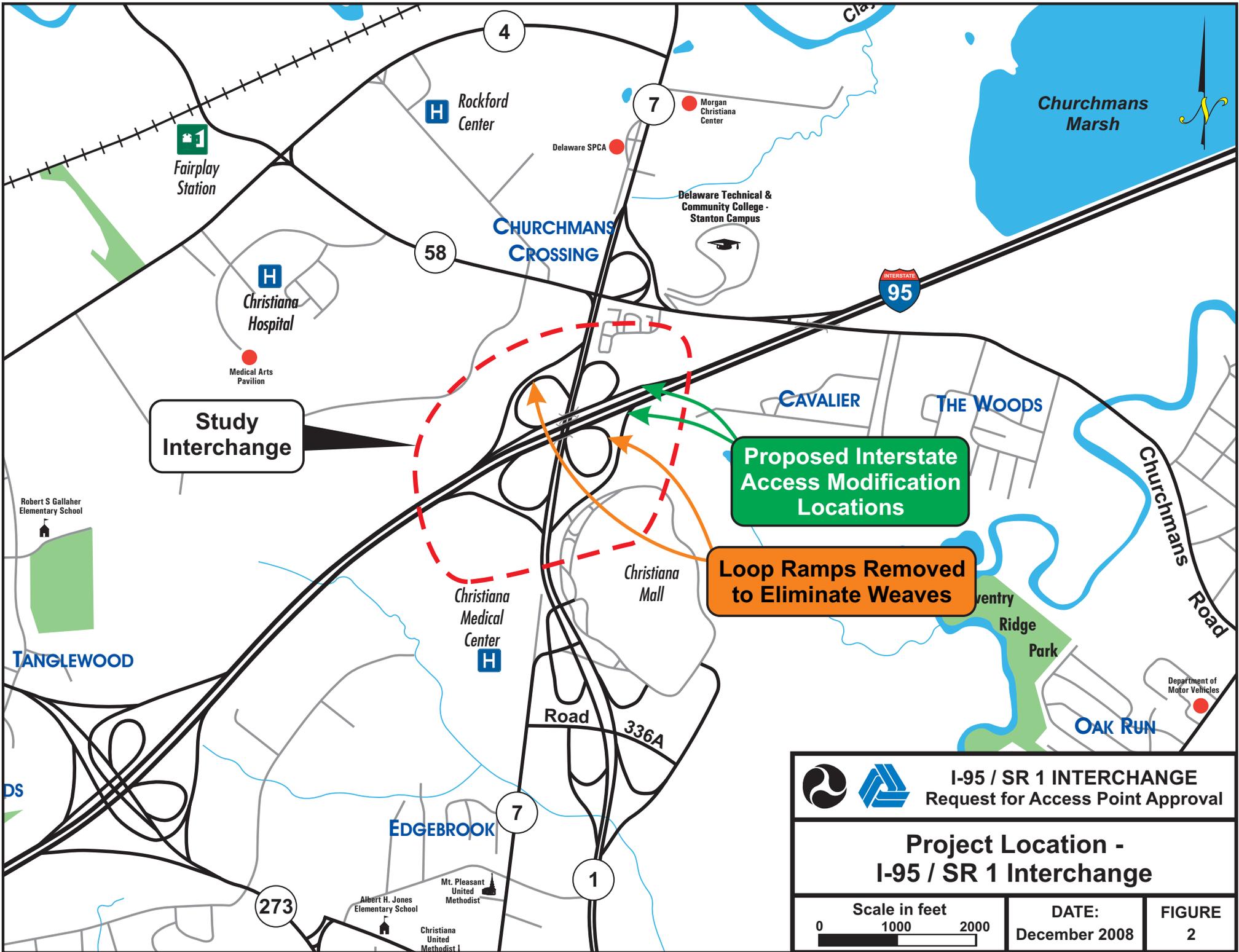
A. Project History

The Delaware Turnpike includes approximately 11 miles of Interstate 95 in northern New Castle County, Delaware, extending from the Maryland-Delaware state line to the I-95/I-295/I-495 Christiana Interchange (**Figure 1**). In the early 1990's, the Delaware Turnpike Improvement Program study was initiated to address deficiencies on the Delaware Turnpike. The original study included, in addition to build alternatives, the evaluation of commuter rail service, enhanced transit service and transit supportive infrastructure, intelligent transportation systems (ITS) and an aggressive program of travel demand management initiatives through the Transportation Management Association of Delaware (TMA Delaware). In 1995, then Secretary of Transportation Anne Canby initiated the implementation of a series of recommended non-capacity improvements and other activities intended to reduce the volume of traffic on I-95 in Delaware and improve the efficiency, operation, and management of the corridor. Programs implemented included: the opening of new commuter rail service stations at Newark and Fairplay at Churchmans Crossing on AMTRAK's Northeast Corridor; the creation of a transit hub at the Christiana Mall to promote bus transit and support express bus service between Wilmington and Newark; the installation of video cameras, variable message signs, loop detectors, and associated electronic devices to provide information to the Transportation Management Center (TMC) as part of a traveler advisory system to alert motorists of incidents and events; and the establishment of programs by DelDOT and TMA Delaware to promote alternatives to single occupancy vehicle usage such as carpool, bike, walk, transit, and telecommuting.

While these initiatives have been successful in generating increased transit usage and heightened traveler awareness, they have been unsuccessful in their ability to slow down the growth of traffic on the Delaware Turnpike. In fact, design year 2010 traffic volume projections from the 1990 Delaware Interstate System Study were exceeded by the year 1998. Traffic volumes on portions of the Delaware Turnpike currently exceed the capacity of the existing facilities. Consequently, the Delaware Department of Transportation (DelDOT) has preceded with project development activities to evaluate capacity improvement alternatives along the I-95 corridor. Included in these capacity improvements are design modifications to the I-95/SR 1 interchange (**Figure 2**). This report has been prepared to seek FHWA approval for the modification of three (3) existing access locations along I-95 at the SR 1 interchange that



 I-95 / SR 1 INTERCHANGE Request for Access Point Approval		
Study Area Map - Delaware Turnpike Corridor		
Not to scale	DATE: December 2008	FIGURE 1



Study Interchange

Proposed Interstate Access Modification Locations

Loop Ramps Removed to Eliminate Weaves

 I-95 / SR 1 INTERCHANGE Request for Access Point Approval		
Project Location - I-95 / SR 1 Interchange		
Scale in feet 0 1000 2000 	DATE: December 2008	FIGURE 2

will be required as part of the recommended capacity improvements at the interchange. The project also includes the removal of two existing loop ramps within the interchange to eliminate weaving conditions along northbound I-95, southbound SR 7, and the southbound collector-distributor (C-D) road.

B. Project Need

The need for the redesign of the I-95/SR 1 interchange is primarily a function of existing traffic volumes exceeding the capacity of the freeway and ramps as currently designed. The following section outlines how historical traffic growth, stimulated by economic development in New Castle County, Delaware, has led to congested conditions within the I-95/SR 1 interchange during peak periods. Existing design deficiencies within the interchange are discussed, and the safety analysis provided reveals that the weaving, merge, and diverge areas within the I-95/SR 1 interchange have experienced a significant number of rear-end crashes, likely caused by congestion in the area. Future traffic projections show that the volume of traffic using the interchange is expected to continue to increase, while transit and management improvements already implemented have not slowed traffic growth. These factors combine to show the need for capacity improvements at the I-95/SR 1 interchange.

1. Historical Traffic Growth

From 1980 to 2000, traffic on the Delaware Turnpike increased 178 percent in the project area. During the 1980's, traffic in the vicinity of the SR 1 interchange grew by about 50 percent, or an average growth rate of about 4.8 percent per year. During the 1990's, traffic grew over 80 percent, or an average annual growth rate of about 8.3 percent. This traffic growth occurred despite the implementation of several non-capacity improvement measures between 1995 and 2000 aimed specifically at reducing the traffic growth rate (including rail and bus transit and ITS alternatives). Meanwhile, traffic volumes approaching the interchange from the south on SR 1 have increased significantly following the conversion of SR 1 to a multi-lane expressway from Dover to I-95 between 1991 and 2003.

Recent traffic counts conducted for this study indicate that the corridor has showed little or no growth between 2000 and 2008. However, this is primarily an indication that the I-95/SR 1 interchange is saturated and cannot accommodate additional traffic as it is currently designed.

2. Existing Traffic Conditions

Year 2008 traffic volumes were obtained for I-95 and SR 1 by performing manual and automated tube counts at various ramp and mainline locations within the study area. These counts were supplemented by historical data that had been collected along the corridor for previous studies. From this data, a balanced network of peak hour traffic volumes and Average Daily Traffic (ADT) volumes was developed. (Peak hour volumes are presented in Section IV of this report, while ADT volumes are included in **Appendix C**) Capacity analyses performed using these volumes indicate that the Turnpike mainline operates at LOS F between the SR 1 and SR 141 interchanges. Average vehicle speeds on the Turnpike through the SR 1 interchange are below typical interstate highway speeds, particularly during the peak periods, and travelers experience excessive delays and lengthy travel times. Additionally, daily 2-mile backups occur on SR 1 northbound approaching the I-95/SR 1 interchange during the AM peak period, and several of the merge, diverge, and weave movements within the interchange also currently operate at LOS F during peak periods. The congestion within the interchange has contributed to high crash rates, as will be discussed further in the Safety section below. More detailed traffic analyses results of existing, no build, and build conditions are presented later in this report in the Traffic Operations section.

3. Design Deficiencies

The design of the I-95 cloverleaf interchange was initially developed to accommodate traffic from SR 7, a low-volume two-lane local road at the time the I-95/SR 7 interchange was constructed. Subsequent to initial interchange construction, the portion of SR 7 south of I-95 was converted to SR 1, an expressway that extends from I-95 to Dover and has become the major north-south spine road in Delaware. Consequently, the current design of the I-95/SR 1 interchange is outdated and substandard.

Examples of the outdated cloverleaf design can be found in the geometry of the interchange ramps. The existing loop ramps have minimum radii of 229 feet; the geometry of the outer ramps is only slightly better with minimum radii of 450 feet. This provides for design speeds of less than 30 mph on the loop ramps and just over 35 mph on the outer ramps. As a result, traffic using these ramps must slow from 55 mph (or greater) down to 35 mph (or less) and then accelerate back to 55 mph (or greater). The required change in speed for vehicles using these ramps is further hampered by the substandard lengths of deceleration and acceleration lanes available on both I-95 and SR 1. These factors contribute to an increase in congestion and a decreased level of service.

Additionally, the interchange design is not consistent with the current function of the interchange. The interchange currently acts as a connection between two freeway-type facilities (I-95 and SR 1), but the existing cloverleaf design does not provide for the needed directional-type movements between the two. The interchange serves a wide variety of travelers, including daily commuters, local mall traffic, seasonal traffic traveling to Delaware's Atlantic beaches, and interstate traffic along the eastern seaboard, and the current cloverleaf design creates conflicts between merging and weaving traffic and through traffic.

4. Projected 2030 Design Year Traffic Conditions

Traffic forecasts for this project are based on DelDOT's regional transportation demand model (commonly referred to as the "Peninsula" model) and are projected for the 2030 design year. Current projections indicate an increase in ADT from 207,625 in 2008 to 272,875 in 2030 (1.25 percent increase per year) on I-95 in the vicinity of the SR 1 interchange. This increase accounts for latent demand, and includes the influence of related projects, such as US 301, which will be discussed later in this report. As volumes increase, traffic conditions will continue to deteriorate, with greater delays, longer travel times, extended periods of congestion along the I-95 and SR 1 corridors, and a subsequent increase in potential for traffic crashes.

5. Safety

As discussed above in the Historical Traffic Growth section, the Delaware Turnpike corridor experienced substantial traffic growth throughout the 1990's, until the corridor reached saturated conditions in the early 2000's. A review of crash data during that time period indicates that there was a direct correlation between congestion levels and crash rates. Over the four-year period from 1998 to 2001, the average crash rate on the Delaware Turnpike increased steadily from 73 per 100 million vehicle miles (mvm) in 1998 to 90 per 100 mvm in 2001. Rear-end collisions were the most common crash type, accounting for 56 percent of all crashes. This crash pattern is typical of congested freeways, where stop-and-go traffic frequently occurs during the peak hours.

Recently, as traffic volumes have reached saturation and commuters have become accustomed to the typical daily congestion locations, crash rates have reduced slightly (For a complete analysis of crash data covering the period between 2005 and 2008, see Section III of this report). However, rear-end crashes remain the primary crash type along I-95. Since these crashes are primarily caused by congestion and lane changes due to merges, diverges, and weaves, operational and capacity improvements at appropriate locations would be expected to provide an improvement in the safety of the roadway.

6. Population Growth and Economic Development

The population in New Castle County, Delaware increased by 82,272 persons (a 19 percent increase) between 1990 and 2005, while the number of jobs increased by 40,360 (17 percent increase). This increase in commuters and employers has placed a burden on the transportation network, which consequently must service a greater number of travelers on a daily basis. In addition to the increase in the number of residents and workers in New Castle County, the transportation trends in the Newark/Wilmington metropolitan area during the past 20 to 25 years have contributed to the congestion problem on the region's roadways. Trip origins and destinations are becoming more scattered, and

downtown Wilmington has lost its characteristic as the single, highly-concentrated activity center in the region. Suburb-to-suburb commuting patterns are overtaking once dominant radial commuting patterns. Land-use policies have encouraged the redistribution of New Castle County's population to lower density areas, resulting in a dispersion of vehicle trips and increased trip lengths. Additionally, the number of dual-career, dual-income families has continued to rise, placing an increasing number of vehicles on the roadway network. Furthermore, economic development in the region is expected to continue. According to the *2007 New Castle County Comprehensive Development Plan Update*, an estimated increase in employment from about 272,000 jobs in 2000 to about 292,879 jobs in 2030 could result in over 5,000 more commuters entering and leaving New Castle County, as rapid population growth continues to occur in the southern Delaware counties and adjacent counties in Pennsylvania.

7. Connection of SR 1 to I-95

When originally designed, the cloverleaf interchange between I-95 and SR 7 involved an interstate highway crossing over and connecting with a two-lane, rural road. Over the past 40 years, SR 7 south of I-95 has evolved into a multi-lane freeway (SR 1) that connects I-95 to Dover and represents the major north-south spine road in Delaware. SR 1 now carries much of the commuter traffic from the very active development area between I-95 and the area south of the C & D Canal. While minor adjustments to the I-95/SR 1 interchange were made as part of the initial construction of the SR 1 project, the northbound SR 1 movement to northbound I-95 has experienced lengthy backups during the AM peak hour, as has the reciprocal movement from southbound I-95 to southbound SR 1 during the PM peak period, since SR 1 opened to traffic. SR 1 currently carries an ADT of approximately 84,750 vehicles per day, and is projected to carry about 116,800 vehicles per day in the design year of 2030.

8. Inability of Non-capacity Improvements to Control Traffic Growth

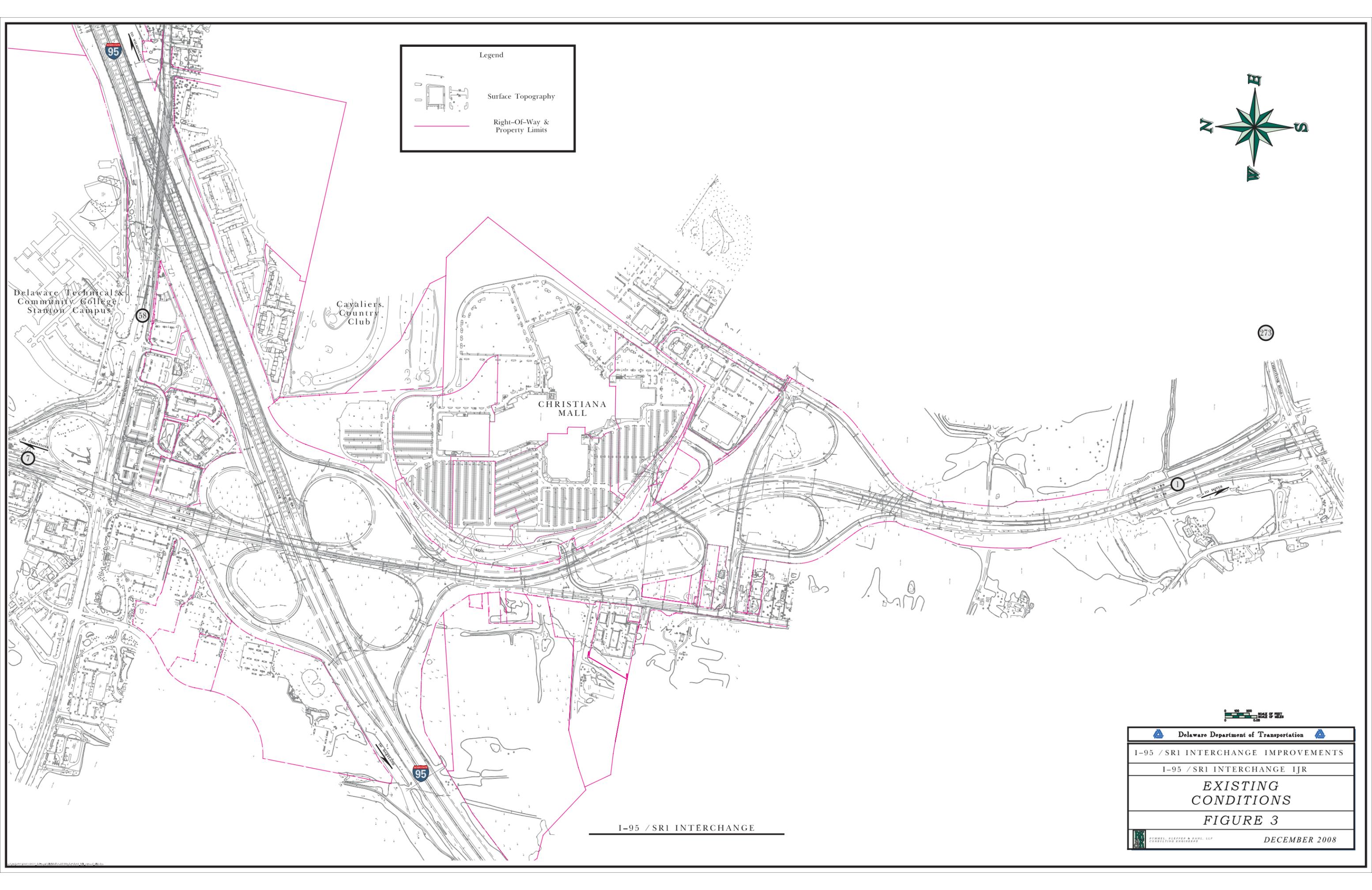
As discussed in the Project History section, several non-capacity transportation improvements were implemented during the 1990's within and around the study area in an effort to reduce the traffic volumes on the Delaware Turnpike and improve the operational efficiency of the corridor. These projects include enhancement of commuter rail service, enhanced transit service and transit supportive infrastructure, ITS improvements, and transportation demand management (TDM) initiatives. However, these transit and management improvements did not slow the rate of growth of traffic on I-95 sufficiently to prevent the I-95 / SR 1 interchange from reaching saturated conditions in the 2000's. Therefore, capacity improvements are required to improve the traffic operations at this location.

II. Project Description

A. Existing Conditions

The I-95/SR 1 interchange is a full cloverleaf interchange that connects Interstate 95 to SR 1 and SR 7 in New Castle County, Delaware. I-95 runs from southwest to northeast through the interchange. The north-south cross street is designated as SR 7 to the north of the interchange and SR 1 to the south of the interchange. SR 7 is a principal arterial road, while SR 1 is a multi-lane expressway that connects I-95 to Dover and has become the major north-south spine road in Delaware. **Figure 3** shows a plan view of the existing interchange configuration.

In the northbound direction, I-95 carries four (4) through lanes. There is an auxiliary lane between the SR 273 interchange and the SR 1 interchange that drops at the ramp to southbound SR 1. A weave condition exists on the mainline between the loop ramps to and from SR 7. In the southeast quadrant of the interchange, a single-lane ramp connects northbound SR 1 to northbound I-95. This ramp also contains a slip ramp that provides a direct connection between the Christiana Mall Ring Road and northbound I-95. Four (4) through lanes currently continue north on I-95 beyond the interchange through Churchmans Marsh. A fifth lane on I-95 north of the interchange is currently under construction.



Legend

Surface Topography
 Right-Of-Way & Property Limits



Delaware Technical & Community College, Stanton Campus

Cavaliers Country Club

CHRISTIANA MALL

I-95 / SRI INTERCHANGE



I-95 / SRI INTERCHANGE IMPROVEMENTS
I-95 / SRI INTERCHANGE IJR
EXISTING CONDITIONS
FIGURE 3
<small>HUMMEL, KLEPPER & PAHL, LLP CONSULTING ENGINEERS</small>
DECEMBER 2008

In the southbound direction, I-95 carries four (4) through lanes plus a collector-distributor (C-D) road through the I-95/SR 1 interchange to handle the movements between I-95 and SR 7/SR 1. Traffic heading south on SR 1 from southbound I-95 exits the mainline onto the C-D road, and a weave condition exists on the C-D road between the loop ramps to and from SR 1. Traffic from southbound SR 7 to southbound I-95 merges onto the C-D road before the C-D road rejoins the I-95 mainline. There is no ramp provided for the southbound I-95 to northbound SR 7 movement; this movement is carried by a ramp from southbound I-95 to Churchmans Road, approximately ½ mile upstream from the I-95/SR 1 interchange. Four (4) mainline lanes are provided on southbound I-95 south of the interchange.

A large number of ramp movements are provided in the area, due to the proximity of the 1.6 million square foot Christiana Mall (located just south of I-95 in the southeast quadrant of the interchange) and the SR 7/Churchmans Road interchange, located just north of I-95 in the intensively developed Churchmans Crossing area. Traveling northbound on SR 1 towards the interchange, motorists encounter a diverge ramp to the mall, two (2) merge ramps from the mall, the diverge to northbound I-95, and a weave under the I-95 overpass. Southbound motorists on SR 7 encounter a diverge to southbound I-95, a weave under the I-95 overpass, a merge from northbound I-95, a diverge to the Mall Access Road, a diverge to Road A, and a merge from Road A within approximately 1.5 miles.

As discussed in the Project Need section, the design of the interchange is outdated, substandard, and ill-suited to handle the current and future traffic patterns through the interchange.

B. Alternatives Considered

Several alternatives were considered for the I-95/SR 1 interchange, including a No-Build alternative and two (2) Build Alternatives with multiple options.

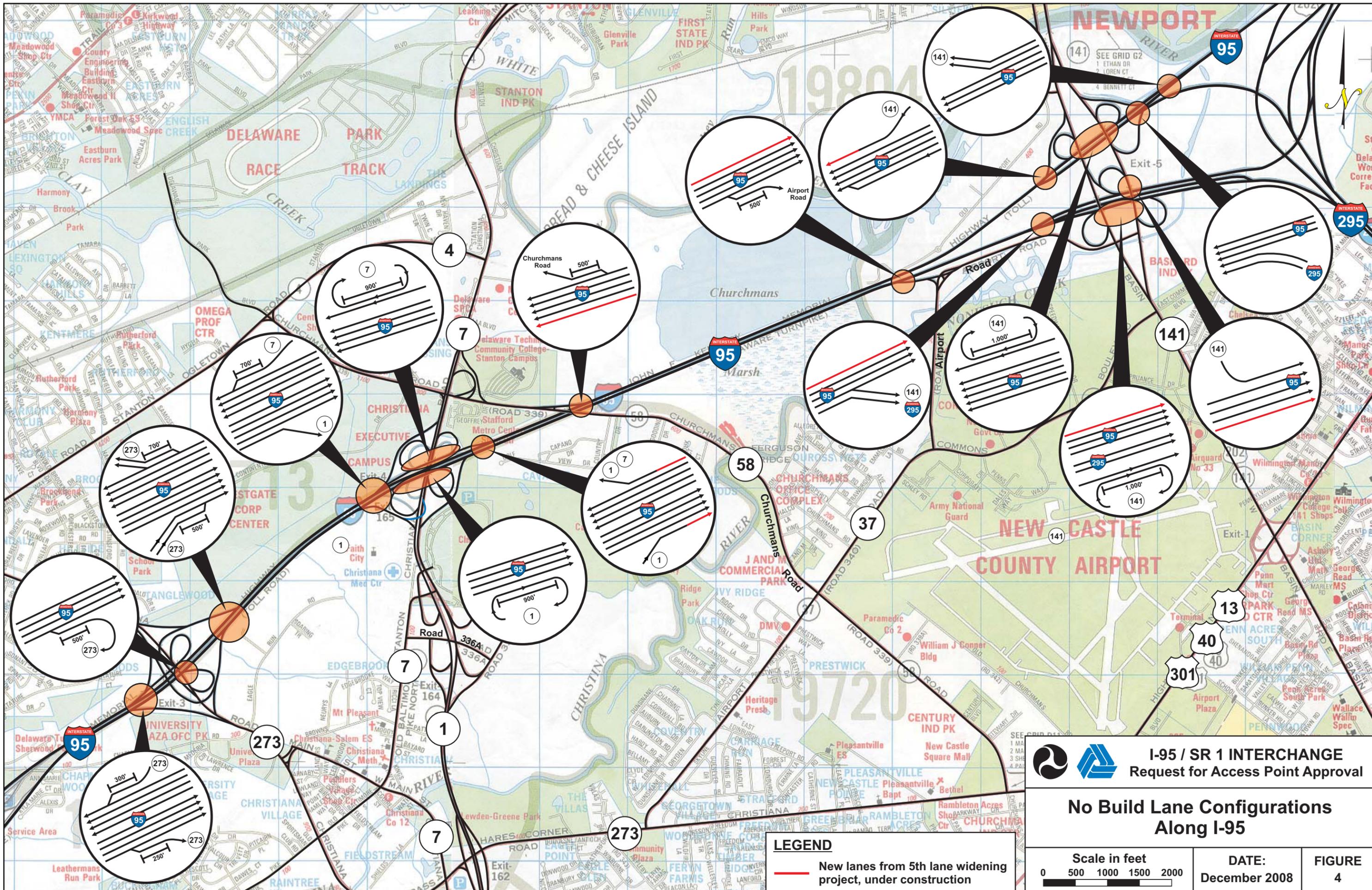
No-Build Alternative (Alternative 1)

The No-Build Alternative for the I-95/SR 1 interchange maintains existing conditions at the interchange. Construction would be limited to routine repairs and maintenance. Under this alternative, DelDOT would continue development and deployment of enhanced transit systems and traffic management systems in an effort to improve efficiency along this section of I-95. However, many of these types of non-capacity improvements have already been implemented with little impact on controlling traffic growth. It should be noted that for the purposes of this report, the "No-Build" alternative includes the widening of I-95 between SR 1 and I-495, which is currently under construction and expected to be completed in early 2009. **Figure 4** shows the existing and No-Build lane configurations along I-95.

Build Alternatives (Alternatives 2 and 3)

The Build Alternatives were developed to improve the operational efficiency of the I-95/SR 1 interchange by separating the through/regional traffic between SR 1 and I-95 from the local/mall traffic. This was accomplished by providing physically separated roadways for through and local traffic, and providing high-speed (60 mph) ramps for the southbound I-95 to southbound SR 1 movement and the northbound SR 1 to northbound I-95 movement. In order to accommodate these new ramps, northbound SR 1 and the Mall Ring Road will be shifted to the east, and the mall bridge will be replaced to the south of its existing location.

Two primary Build alternatives were developed for the I-95/SR 1 interchange. In general, the only significant difference between the two designs is the location of proposed Ramp A, which will provide the southbound I-95 to southbound SR 1 movement. In Alternative 2, Ramp A traverses three quadrants of the interchange forming a wide flyover loop generally around the existing interchange, crossing over the northeast loop, SR 7, I-95, Ramp F and southbound SR 1 before passing under the new mall bridge. This alternative requires that the existing northwest loop be modified to maintain traffic during construction before it is ultimately taken out of service upon completion of Ramp A. In Alternative 3, Ramp A is located inside the existing interchange, crossing over I-95, the southeast loop and (relocated) northbound SR 7 on the east side of the interchange and then passing under the new mall bridge. In this



I-95 / SR 1 INTERCHANGE
Request for Access Point Approval

No Build Lane Configurations Along I-95

LEGEND
 New lanes from 5th lane widening project, under construction

Scale in feet
 0 500 1000 1500 2000

DATE:
December 2008

FIGURE
4

alternative, the northwest loop is not impacted during construction but is taken out of service once construction of Ramp A is completed.

C. Preferred Alternative

DelDOT considered many factors in the evaluation and selection of a preferred alternative for the SR 1 interchange modifications. These factors included the safety of the public during and after construction, minimizing impacts to the traveling public, ease of construction, duration of construction, minimizing impacts to the environment, right of way impacts, and cost. As a result of this evaluation and after consultation and coordination with FHWA, federal and state environmental resource agencies, stakeholders, and public input, Alternative 3 was chosen as the preferred alternative. Despite being more expensive than Alternative 2 by about \$5 million, Alternative 3 was selected for the following reasons: (1) environmental impacts are less than Alternative 2; (2) provides a 60 mph design speed for freeway-to-freeway ramps; (3) shorter construction time and improved maintenance of traffic requirements; (4) additional travel safety with longer diverge and weave areas.

Alternative 3 includes two new ramps that connect to the interstate. Ramp A connects southbound I-95 to southbound SR 1. This ramp is 7,245 feet in length and has a design speed of 60 mph. Ramp A diverges from the interstate as a two-lane exit, with the new 5th mainline I-95 lane dropping into Ramp A and the existing fourth lane on southbound I-95 being an either/or lane. The adjacent I-95 ramps are located approximately 1,100 feet to the north at Churchmans Road, and approximately 1 mile to the south where the SR 1 C-D Road merges with southbound I-95. Ramp A widens to three lanes before crossing over I-95. The right lane of ramp at drops at Ramp G-1, which provides access to southbound SR 7, Road A, and the Christiana Mall, while Ramp A continues as two barrier-separated lanes parallel to southbound SR 7, before merging to one lane and forming southbound SR 1 south of the Road A bridge. When DelDOT widens SR 1 to three lanes (see Related Projects section), Ramp A will remain two lanes flowing into SR 1. Ramp A has a 14-foot left shoulder and a 4-foot right shoulder for most of its length. These shoulders have been “flipped” to provide adequate sight distance along the curve without requiring extra bridge deck.

Ramp B connects northbound SR 1 with northbound I-95. This ramp is 6,000 feet in length and has a design speed of 60 mph. Ramp B is a two-lane ramp that forms on the median side of northbound SR 1, south of Road A. Ramp B continues as two barrier-separated lanes parallel to northbound SR 1/SR 7 before joining northbound I-95. Ramp B has a typical 4-foot left shoulder and a 10-foot right shoulder, but the right shoulder widens to as much as 24 feet in certain areas to accommodate a 60 mph sight distance.

Following the selection of Alternative 3 as the preferred alternative, DelDOT and the design team continued to refine the design in an attempt to provide the best-possible design to accommodate the traffic demands through the interchange. The project team developed five (5) options for consideration. Option 1 is the same as the original Alternative 3 design. Option 2 is a long-term concept in which the I-95/SR 1 interchange ramps would tie in to a future collector-distributor (C-D) road system along I-95. Option 3 includes the original Alternative 3 design, with modifications to southbound SR 1 to improve lane-drop sequencing. Option 4 includes the same modifications as Option 3, and also modifies the alignment of Ramp B to tie in to the median side of I-95 northbound. Option 5 is similar to Option 4, except that only traffic destined for Wilmington would be signed to use Ramp B, requiring fewer lanes on Ramp B.

Following coordination with DelDOT and FHWA, Alternative 3 – Option 4 was selected as the preferred alternative. Option 4 includes the following changes from the original Alternative 3 option:

- The design speed on Ramp A and Ramp B was reduced to 55 mph. This was done to limit the amount of shoulder needed to be constructed solely to achieve the 60 mph sight distance. There was some concern from the project team that excessive shoulder width could encourage the use of the shoulder as a travel lane and increase construction costs.

- The existing loop ramp in the southeast quadrant connecting northbound I-95 to northbound SR 7 was removed, and the movement was replaced with a flyover ramp. This change eliminates an existing weave along northbound I-95.
- The lane drops along southbound SR 1 were revised to tie-in to existing conditions north of SR 273. The original design included simultaneous lane drops on the left and right sides of southbound SR 1 to get down to three lanes prior to SR 273. Option 4 includes lane drops at the ramp to the Christiana Mall and at the ramp to Road A. Since through traffic is separated from local traffic under the preferred alternative, the local volumes are light enough that the resulting weaves will operate acceptably, as shown later in this report in the Traffic Operations section.
- The connection of Ramp B to northbound I-95 was modified. Originally, Ramp B connected with Ramp E (which carries local and mall traffic to northbound I-95) and joined northbound I-95 as a two-lane entrance on the right side of I-95. One lane tapered out after 450 feet with a 600-foot taper and the second lane formed the new 5th lane on the right side of northbound I-95. However, an examination of the traffic patterns in the area indicated that a majority of the traffic using the ramp from northbound SR 1 to northbound I-95 was destined for Wilmington via I-95 or I-495 (see results of an origin-destination study presented in the Section II-D of this report). This traffic currently weaves across multiple lanes on northbound I-95 through Churchman's Marsh to get into the left lanes in order to continue through to Wilmington. This weaving action contributes to the existing congestion along the corridor. Under Option 4, this weaving is minimized because Ramp B splits into two ramps just south of I-95. Vehicles destined for Wilmington will be signed to use the left lane of Ramp B, which flies over I-95 and joins northbound I-95 on the left (median) side, forming the new 5th lane. Vehicles destined for I-295 and SR 141 will be signed to use the right lane of Ramp B, which connects to local Ramp E and joins northbound I-95 on the right side as a merge condition. Due to design criteria regarding ramp gore spacing and safety concerns, this merge must occur beyond the existing Churchmans Road overpass. To accommodate the ramp in the median, the through lanes of northbound I-95 must be shifted to the outside.

Although the left entrance to I-95 required under Option 4 is unconventional, DelDOT and FHWA agreed to select Option 4 as the preferred alternative during coordination meetings because 1) the left entrance is a lane addition, and not a merge condition, 2) vehicles using the left entrance are properly positioned in their destination lane, significantly reducing weaving activity along I-95, and 3) splitting Ramp B traffic improves the merge operations along I-95.

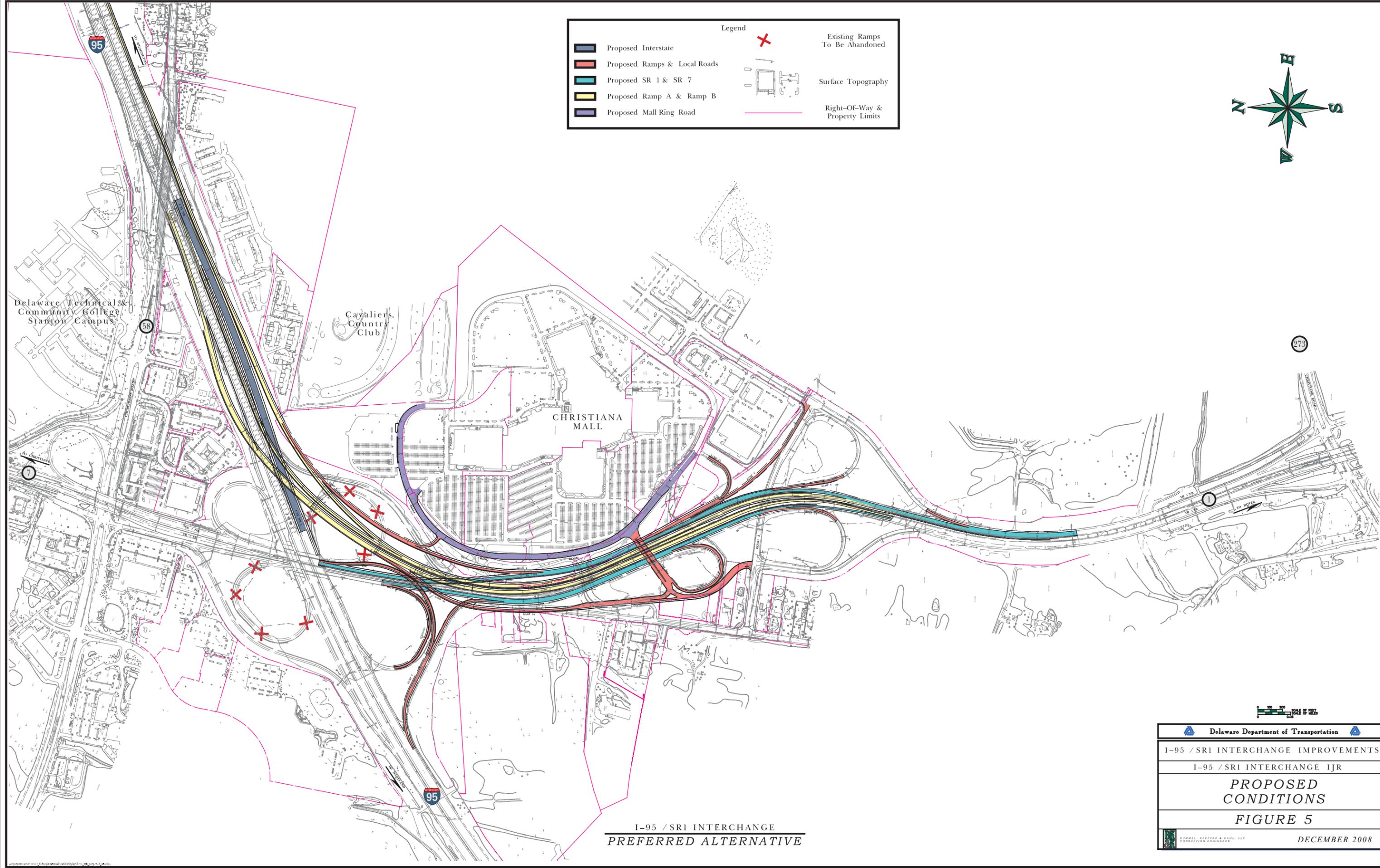
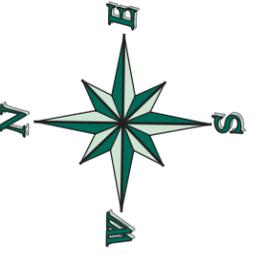
Figure 5 shows a plan view of the Alternative 3 – Option 4 design. The resulting lane configurations along I-95 are shown in **Figure 6**.

The preferred alternative will require three (3) design exceptions. The first two (2) design exceptions are related to the existing SR 386A (Road A) bridge over northbound and southbound SR 7. In order to limit right of way and environmental impacts, the proposed design takes advantage of the existing variable width median between northbound and southbound SR 7 to construct two new directional ramps (Ramps A and B) and the associated relocation of northbound and southbound travel lanes for SR 7.

The existing Road A Bridge is a two span structure that was constructed in 1990 and is in good condition. Because the bridge spans are not the same length, the existing pier is not in the center of the median. The location of the existing piers and abutments, combined with the design constraints for the proposed roadway alignments, results in the following typical section for the northbound traffic under the eastern most span of the existing bridge (see next page):

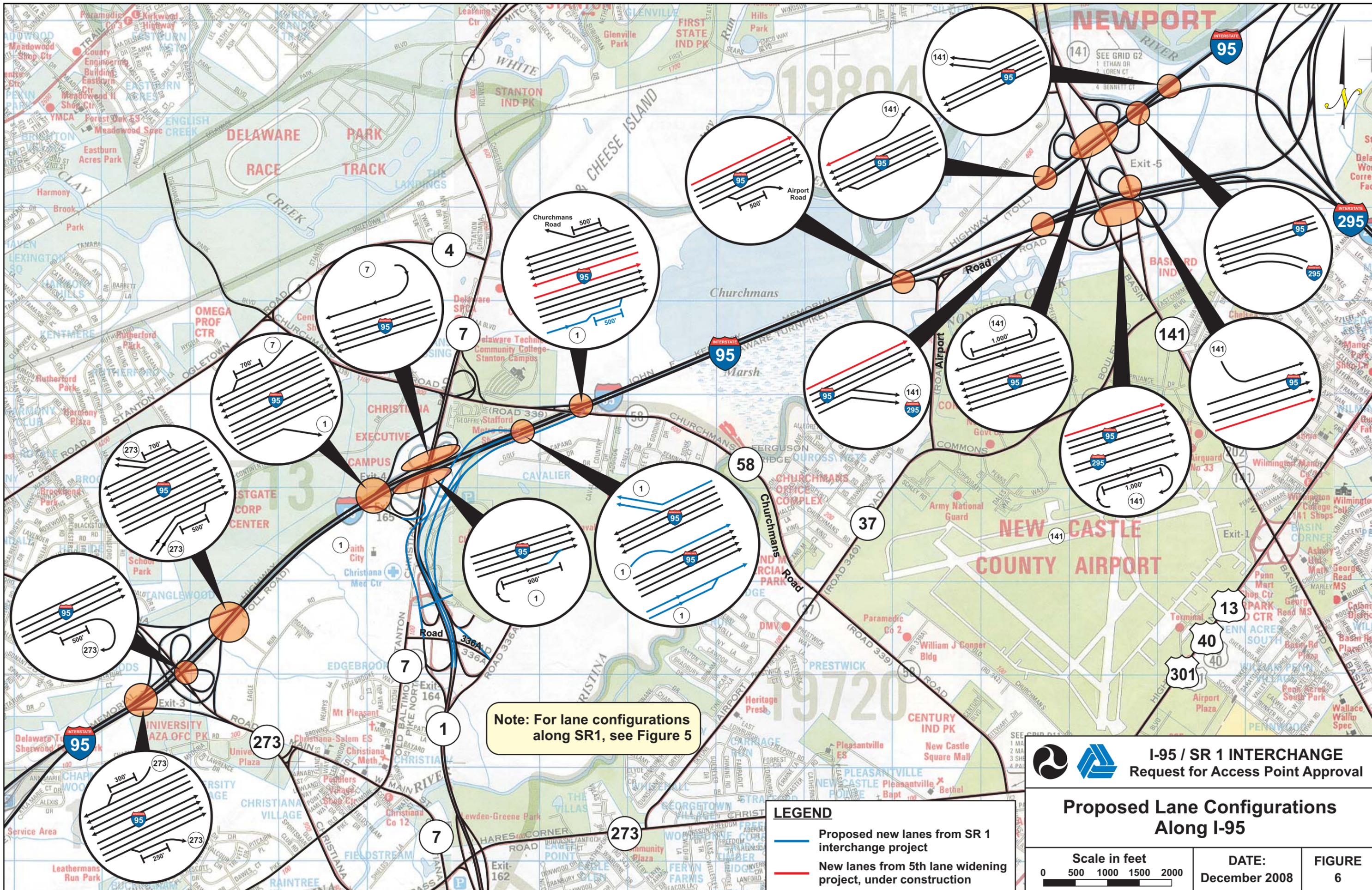
Legend

	Proposed Interstate		Existing Ramps To Be Abandoned
	Proposed Ramps & Local Roads		Surface Topography
	Proposed SR 1 & SR 7		Right-Of-Way & Property Limits
	Proposed Ramp A & Ramp B		
	Proposed Mall Ring Road		



I-95 / SRI INTERCHANGE
PREFERRED ALTERNATIVE

 Delaware Department of Transportation 
 I-95 / SRI INTERCHANGE IMPROVEMENTS
 I-95 / SRI INTERCHANGE IJR
**PROPOSED
 CONDITIONS**
FIGURE 5
HUMMEL, KLEPPER & PAHL, LLP
 CONSULTING ENGINEERS DECEMBER 2008



Note: For lane configurations along SR1, see Figure 5

- LEGEND**
- Proposed new lanes from SR 1 interchange project
 - New lanes from 5th lane widening project, under construction

I-95 / SR 1 INTERCHANGE
Request for Access Point Approval

Proposed Lane Configurations Along I-95

Scale in feet 0 500 1000 1500 2000	DATE: December 2008	FIGURE 6
---------------------------------------	------------------------	-------------

- Ramp B – A 42-inch concrete barrier is proposed adjacent to the center pier, a 12-foot left shoulder, two 12-foot lanes totaling 24 feet, and a 6-foot right shoulder
- Northbound SR 7 – A 6-foot left shoulder, two 11-foot through lanes totaling 22 feet, one 11-foot auxiliary lane, 6-foot right shoulder, and a concrete barrier adjacent to the existing pier footing.

A two-foot wide median barrier will separate the northbound SR 7 through lanes from Ramp B and extend to the south beyond the gore of Ramp S to eliminate the possibilities of vehicles from the ramp crossing the SR 7 northbound lanes to access Ramp B.

- Design Exception No. 1: A design exception will be required because the location of the barrier on the left (inside) shoulder of Ramp B restricts the horizontal stopping sight distance to 440 feet (51 mph). The design speed for this ramp is 55 mph which requires a minimum horizontal sight distance of 495 feet.
- Design Exception No. 2: A design exception will be required because the location of the median barrier on the left (inside) shoulder of northbound SR 7 restricts the horizontal stopping sight distance to 356 feet (44 mph). The design speed for this roadway is 55 mph which requires a minimum horizontal sight distance of 495 feet.

An additional design exception (Design Exception No. 3) will be required for an existing horizontal stopping sight distance condition that exists on southbound SR 7. The existing condition is created by the location of an existing guardrail that protects an overhead sign structure. The existing guardrail is located approximately 6 feet from the edge of the existing travel lane. The existing guardrail restricts the horizontal sight distance to 361 feet (45 mph). The design speed for this roadway is 55 mph which requires a minimum horizontal sight distance of 495 feet.

Preliminary construction cost estimates for Alternative 3 – Option 4 are approximately \$165 million. A 200-scale plot of the preferred alternative is provided with this report in **Appendix F**.

D. Origin-Destination Study

As discussed in the previous section of this report, the preferred alternative includes a left entrance to I-95 northbound where Ramp B from SR 1 northbound joins I-95. This design was proposed - and ultimately as the preferred alternative – based on a review of the prevailing traffic patterns in the area, which showed that the majority of vehicles using the ramp from SR 1 northbound to I-95 northbound are destined for Wilmington or Pennsylvania, and therefore need to be positioned in the left lanes of I-95 north of Churchmans Marsh to reach their destination.

The review of prevailing traffic patterns included an origin-destination study that was conducted in June 2008 using Automated License Plate Recognition (ALPR) technology to track the destinations of vehicles using the existing ramp from SR 1 northbound to I-95 northbound. The study was conducted over a two-day period, including a Sunday evening (4:00 PM to 8:00 PM) and a Monday morning (6:00 AM to 10:00 AM) to capture the two primary peak periods for northbound traffic in the study area (Summer Sunday and weekday morning).

The results of the origin-destination study indicated that approximately 75 percent of the traffic using the ramp from SR 1 northbound to I-95 is destined for Wilmington or Pennsylvania via I-95 or I-495. On Sunday evening, there were 2,835 confirmed license plate matches, with 2,194 (77%) matched at I-95/I-495, 291 (10%) matched at SR 141, and 350 (12%) matched at I-295. On Monday morning, there were 1,869 confirmed license plate matches, with 1,386 (74%) matched at I-95/I-495, 260 (14%) matched at SR 141, and 223 (12%) matched at I-295. These results were consistent with the findings of a select link analysis performed by DelDOT's Division of Planning in January 2008.

E. Related Projects

There are several DeIDOT projects that are under construction or in the planning stages that are either directly or indirectly related to the interchange improvements at the I-95 / SR 1 interchange. The following section of the report discusses these related projects.

I-95 Widening – SR 1 to I-495

The I-95 widening project includes constructing an additional (5th) lane on I-95. The project limits are between SR 141 and SR 1 in the southbound direction, and from SR 1 to north of I-495 in the northbound direction. In the near term, the new 5th lane will tie into the existing ramps from northbound SR 1 to northbound I-95 and southbound I-95 to southbound SR 1 at the I-95 / SR 1 interchange. When the I-95 / SR 1 interchange improvements are completed, the 5th lane will tie into the newly-constructed directional ramps (Ramp A and Ramp B).

Originally, the I-95 widening project and the I-95 / SR 1 interchange improvements were developed as a single project and evaluated as a single environmental document. However, in 2005, DeIDOT decided to move forward with construction of the I-95 widening, and postpone the interchange project until the widening construction was completed. The I-95 widening is currently under construction, with completion expected in late 2008 or early 2009. Environmental documentation for the I-95 / SR 1 interchange project is in the process of being updated.

US 301

The US 301 project will provide a new four-lane US 301 tolled limited access roadway in southern New Castle County. The roadway will extend northeast from the current US 301 at the Maryland-Delaware state line, bypass Middletown, and connect with SR 1 north of the Biddles Corner Toll Plaza, just south of the C&D Canal. FHWA signed the record of decision (ROD) on April 30, 2008, thereby allowing DeIDOT to proceed with final design and construction of the project. This project is expected to increase traffic on SR 1 north of the C&D Canal, including through the I-95 / SR 1 interchange. The future traffic projections developed for this report include the impacts of the US 301 project.

SR 1 Widening

DeIDOT anticipates a future need to widen SR 1 from two (2) lanes to three (3) lanes between Tybouts Corner (US 13) and I-95. This widening will be necessary due to projected traffic growth along the SR 1 corridor resulting from proposed development in New Castle County and the US 301 project. While the SR 1 widening project is only in the very preliminary stages at this point, the I-95 / SR 1 interchange is being designed to tie-in to both the current configuration of SR 1, as well as the potential widened SR 1 section. The SR 1 Widening project is funded for design in DeIDOT's six-year (2009 – 2014) Capital Transportation Program, but is currently not funded for construction.

III. Crash Data Summary

The most recent crash data available for the study area was obtained covering the period between May 2005 and April 2008. The following section of the report discusses the crash rates and trends along Interstate 95, SR 1 and the interchange ramps within the study area for this period, including a comparison to statewide averages. The complete set of crash data obtained from the DeIDOT Planning Section is included with this report in **Appendix B**.

I-95 (from SR 273 to I-495)

Crash data was obtained along I-95 for a period of three years between May 2005 and April 2008 along a 6.02 mile stretch between SR 273 and I-495 (northbound milepoints: 6.62 – 10.11; southbound milepoints: 5.75 – 10.11). A total of 1,092 crashes were reported during this period including 6 fatalities (0.5%) and 225 crashes (21%) that resulted in personal injuries. The Average Accident Rate (AART) for this segment during the three year study period is 0.52 crashes per Million Vehicle Miles Traveled (MVMT) which is less than the statewide average rate of 0.88 crashes per MVMT for Interstate roadways. The following trends were identified in the crash data set:

- Rear-end crashes represent the most common crash type in the study area accounting for 56% of the total crashes, with 24% occurring in the northbound direction and 32% occurring in the southbound direction. This crash pattern is indicative of congested freeways where stop-and-go traffic frequently occurs during the peak periods.
- The second most common crash type through the study area is sideswipe crashes. Sideswipe crashes accounted for 23% of the total crashes during the study period along this section with the 11% occurring in the northbound direction and 12% occurring in the southbound direction.
- Twenty-nine percent (29%) of the crashes occurred at night, which includes 15% of the crashes that occurred under dark and unlit conditions.

Crash data was also analyzed by mile point to determine the specific crash patterns within the I-95/SR 1 interchange. The data indicates that during the three year study period, 45 crashes occurred in the northbound direction of I-95 in the 0.4 mile stretch within the influence area of the SR 1 interchange. A total of 15 crashes occurred on southbound I-95 within the influence area of the SR 1 interchange. While these numbers appear to be low compared to the overall study segment of I-95, these crashes are primarily caused by congestion and lane changes due to merges, diverges and weaves. Operational and capacity improvements at appropriate locations would be expected to provide an improvement in the safety of the roadway.

SR 1 (from SR 273 to Churchmans Road)

Crash data was obtained along SR 1 for a period of three years between May 2005 and April 2008 along a 2.01 mile stretch between SR 273 and Churchmans Road (northbound milepoints: 3.96 – 5.94; southbound milepoints: 0.60 – 2.58). A total of 230 crashes were reported during this period including 46 crashes (20%) that resulted in personal injuries. There were no fatalities in this section of the study area during this period. The AART for this segment during the three year study period is 0.85 crashes per MVMT which is less than the statewide average of 2.65 crashes per MVMT for multilane divided urban principal arterials. The following trends were identified in the crash data set.

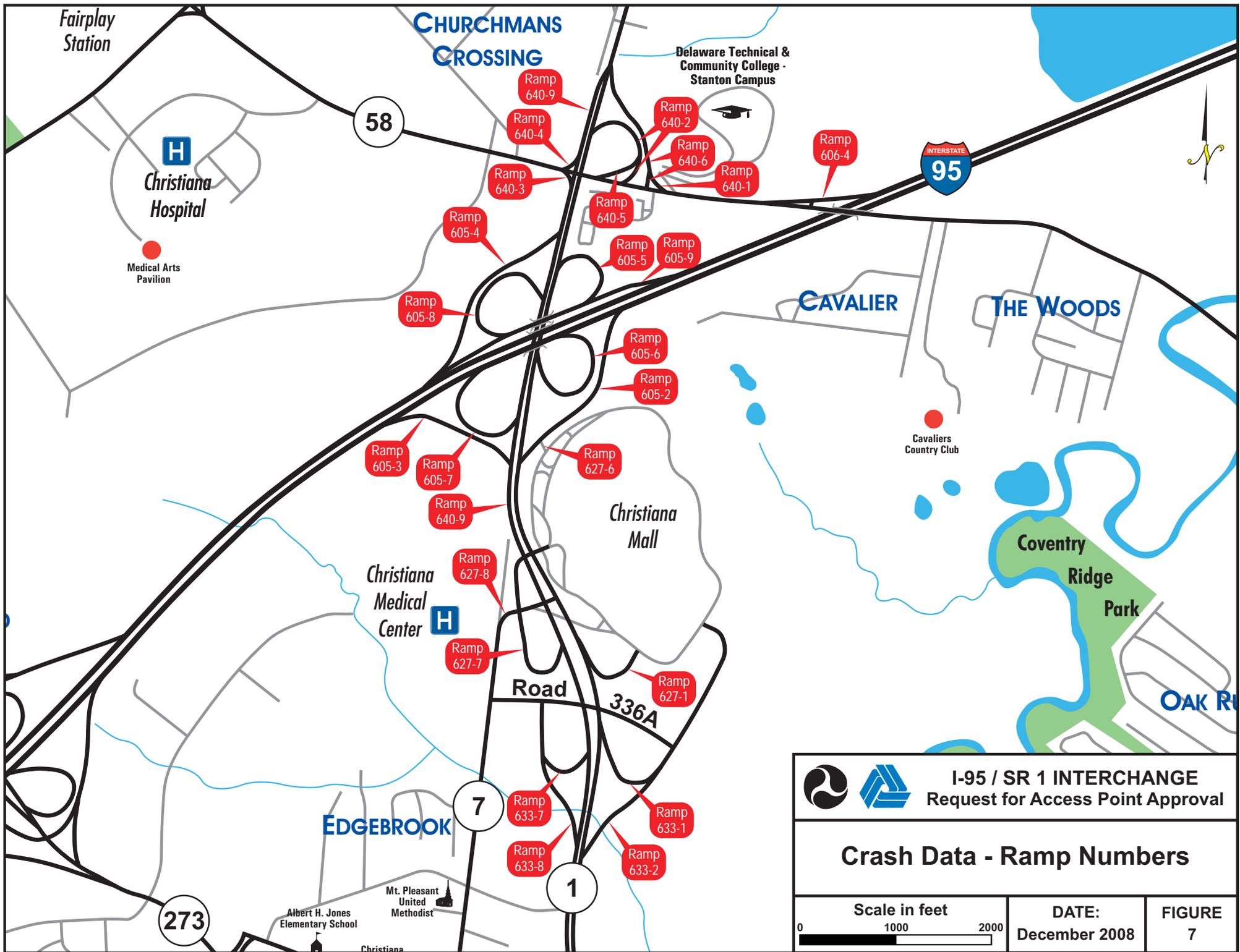
- Rear-end crashes represent the most common crash type in the study area, accounting for 50% of the total crashes, with 40% occurring in the northbound direction and 10% occurring in the southbound direction. This crash pattern is indicative of congested freeways where stop-and-go traffic frequently occurs during the peak periods.
- The second most common crash type through this section of the study area is fixed object collisions. Fixed object collisions accounted for 18% of the total crashes in the segment, with 10% occurring in the northbound direction and 8% occurring in the southbound direction. This crash trend could be indicative of high travel speeds indicating that motorists are driving too fast and losing control on the roadway.
- Twenty five percent (25%) of the crashes occurred at night which includes 9% of the crashes that occurred under dark and unlit conditions.

Interchange Ramps

I-95 / SR 1 Interchange

Crash data was obtained for the ramps at the interchange of I-95 and SR 1 for a period of three years between May 2005 and April 2008. A total of 88 crashes were reported during this period including 20 crashes (23%) that resulted in personal injuries. There were no fatalities reported on any of the interchange ramps at this location. The following trends were identified in the crash data set (refer to **Figure 7** for ramp identification numbers).

- The majority of the crashes (72%) occurred on ramp 605-9 (off-ramp from I-95 SB lanes to the collector-distributor road west of I-95), ramp 606-4 (off-ramp from SB I-95 to Churchmans Road) and ramp 605-2 (on-ramp from NB SR 1 to NB I-95). Twenty seven percent (27%) of the crashes occurred on Ramp 605-9, 24% on Ramp 606-4 and 21% on Ramp 605-2.



- As was the case on I-95 and SR 1 mainline sections, rear-end crashes represented the most common crash type on the interchange ramps, accounting for 52% of the total crashes with 42% occurring on ramps 606-4, 605-2 and 605-9. This crash pattern is indicative of congested freeways and ramp segments where stop-and-go traffic frequently occurs during the peak periods.
- The second most common type of crash on the interchange ramps is fixed object collisions. Fixed object collisions accounted for 24% of the total crashes on the ramps. This crash trend could be indicative of high travel speeds indicating that motorists are driving too fast and losing control on the roadway.
- Twenty nine percent (29%) of the crashes occurred at night which includes 10% of the crashes that occurred under dark and unlit conditions.

SR 1 / Churchmans Road Interchange

Crash data was obtained for the ramps at the interchange of SR 1 and Churchmans Road for a period of three years between May 2005 and April 2008. A total of 48 crashes were reported during this period including 5 crashes (10%) that resulted in personal injuries. There were no fatalities reported during this period on any of the interchange ramps at this location. The following trends were identified in the crash data set.

- The majority of the crashes (94%) occurred on ramp 640-9 (off-ramp from SB SR 1 to the collector-distributor road west of SR 1) and ramp 640-5 (on-ramp from the interchange onto WB Churchmans Road). Seventy one percent (71%) of the crashes occurred on ramp 640-9 and 23% occurred on ramp 640-5.
- Rear-end crashes represented the most common crash type on the interchange ramps, accounting for 63% of the total crashes with 36% occurring on ramp 640-9. All off the crashes on ramp 640-5 were rear-end crashes. This crash pattern is indicative of congested freeways and ramp segments where stop-and-go traffic frequently occurs during the peak periods.
- The second most common type of crash on the ramps was sideswipe crashes that accounted for 19 % of the total crashes.
- Thirty six percent (36%) of the crashes occurred at night which includes 19% of the crashes that occurred under dark and unlit conditions.

SR 1 / Mall Road Interchange

Crash data was obtained for the ramps at the interchange of SR 1 and Mall Road that leads to Christiana Mall for a period of three years between May 2005 and April 2008. A total of 23 crashes were reported during this period including 3 crashes (13%) that resulted in personal injuries. There were no fatalities reported during this period on any of the interchange ramps at this location. The following trends were identified in the crash data set.

- The majority of the crashes (91%) occurred on ramp 627-1 (on-ramp from Mall Road to NB SR 1) and ramp 627-7 (off-ramp from SB SR 1 to Mall Road). Thirty nine percent (39%) of the crashes occurred on ramp 627-1 and 52% of the crashes occurred on ramp 627-7.
- Fixed-object collisions represented the most common crash type on these interchange ramps, accounting for 44% of the total crashes with 35% occurring on ramp 627-7. This crash trend could be indicative of high travel speeds indicating that motorists are driving too fast and losing control on the roadway.
- Thirty nine percent (39%) of the crashes occurred during night which includes 17% that occurred under dark and unlit conditions.

SR 1 / Road A Interchange

Crash Data was obtained for the ramps at the interchange of SR 1 and Road A that connects NB SR 7 to Center Boulevard for a period of three years between May 2005 and April 2008. Center Boulevard leads

to the main entrance of Christiana Mall. A total of 12 crashes were reported during this period including 4 crashes (33%) that resulted in personal injuries. There were no fatalities reported on any of the interchange ramps at this location. The following trends were identified in the crash data set.

- The majority of the crashes occurred on ramp 633-7 (off-ramp from SB SR 1 to Road A) and ramp 633-1 (on-ramp from Road A/Mall Road to NB SR 1). Sixty seven percent (67%) of the crashes occurred on ramp 633-7 and 25% on ramp 633-1.
- Fixed-object collisions represented the most common crash type on these interchange ramps, accounting for 58% of the total crashes, all of them occurring on ramp 633-7. This crash trend could be indicative of high travel speeds indicating that motorists are driving too fast and losing control on the roadway.
- The second most common type of crash on the ramps was sideswipe crashes that accounted for 17 % of the total crashes.
- Thirty three percent (33%) of the crashes occurred during night. Unlike other locations in the study area, there were no crashes that occurred under dark and unlit conditions on these ramps.

Potential Safety Improvements

Although it is difficult to project future safety statistics, the preferred alternative would be expected to improve safety and reduce the crash frequency in the study area. The crashes in the study area are primarily caused by congestion and lane changes due to merges, diverges, and weaves. Since the preferred alternative eliminates three weaving segments within the I-95/SR 1 interchange, including one along the mainline segment of I-95 northbound, the operational and capacity improvements from the preferred alternative and the I-95 widening would be expected to provide an improvement in the safety of the corridor.

The project team has reviewed the FHWA Desktop Reference for Crash Reduction Factors (Report No. FHWA-SA-07-015) dated September 2007. Although the report does not specifically address interchange improvements, the following crash countermeasures are included in the design of the preferred alternative: install barrier (on SR 1 to separate through and local lanes), increase number of lanes (ramps, SR 1, and I-95 from related project), and improve pavement friction (resurfacing).

IV. Traffic Operations

Operational analyses were performed using Highway Capacity Software version 5.3 (HCS) for freeway mainline sections, ramp merge and diverge areas, and weaving sections on I-95 to determine levels of service (LOS) at the I-95/SR 1 interchange and the adjacent interchanges (I-95 at SR 273 to the south, and I-95 at SR 141 to the north). Additionally, a simulation model of the Christiana Mall access roads was created using Synchro software, Version 7, to determine the LOS at existing and proposed signalized intersections in the study area impacted by the proposed interchange improvements. All analyses were performed for existing conditions (year 2008 volumes) and future conditions for the No-Build alternative and the preferred Build alternative (Alternative 3 – Option 4). Future analyses were performed for both the implementation year (2013) and the design year (2030). Electronic versions of all HCS and Synchro files are included with this report on a CD as **Attachment C**.

The following assumptions were made when performing HCS analyses, based on available data from recent traffic counts:

- 9% trucks and buses on I-95 and I-95 ramps
- 9% trucks and buses on SR 1
- 5% trucks and buses on ramps to/from the Mall
- Peak hour factor (PHF) = 0.95
- Level terrain

HCS analyses results for the study interchange and adjacent interchanges along I-95 are summarized in **Table 1** on pages 16 and 17. For all merge and diverge junctions that result in a lane drop or a lane addition, capacity checks were performed on the ramp as well as on the upstream and downstream freeway segments, as indicated in the 2000 Highway Capacity Manual. The capacity check results for these major diverge and major merge areas are presented in **Table 2** on pages 18 and 19. Traffic analyses results for merge and diverge junctions, weaving segments, and signalized intersections along SR 1 are summarized in **Table 3** on page 20, with capacity checks shown in **Table 4** on page 21. The analyses results are discussed in detail in the following section of the report.

A. Existing (2008) Volumes and Levels of Service

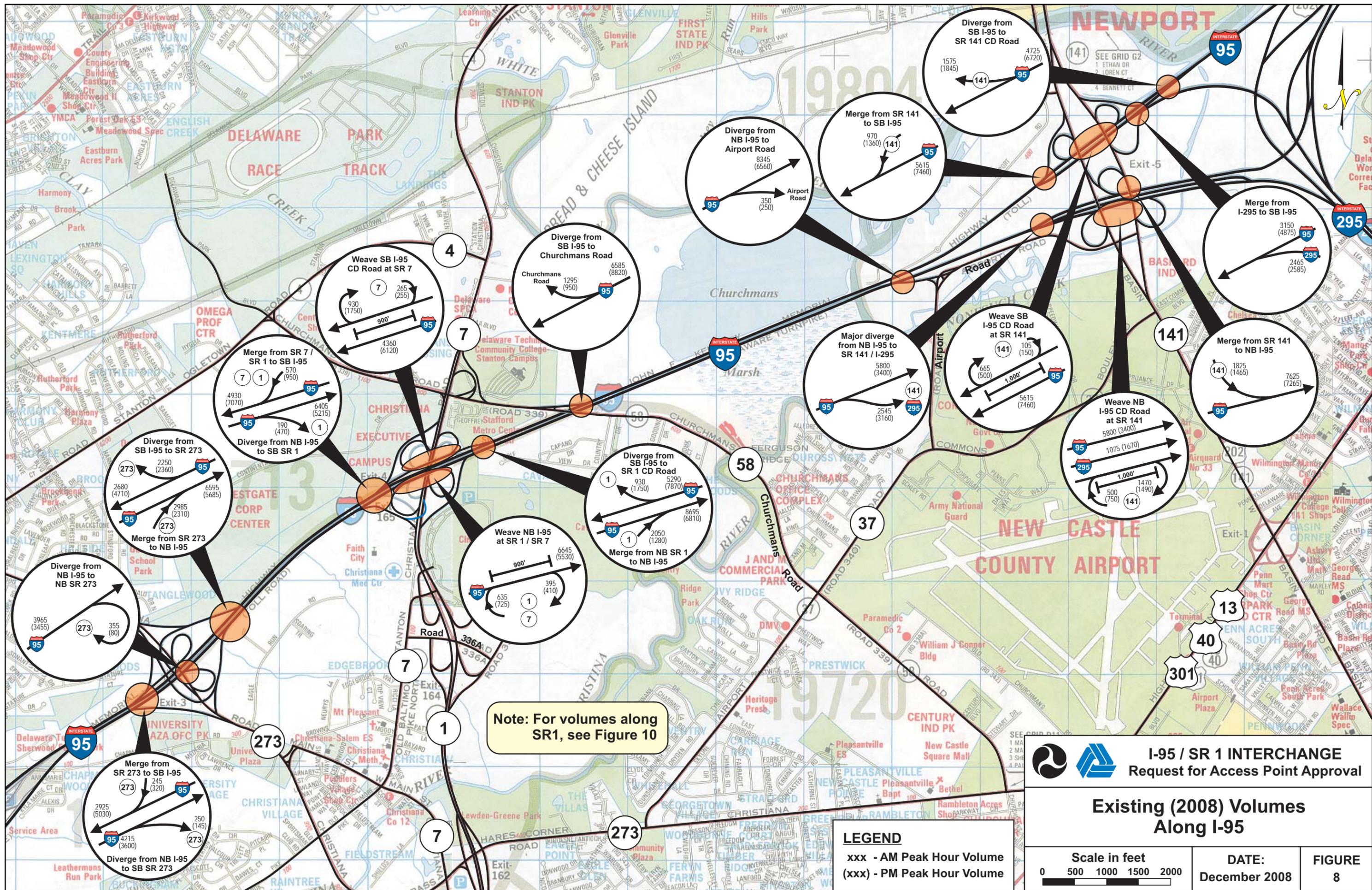
Year 2008 traffic volumes were obtained for the study area by conducting manual and automatic tube traffic counts at various mainline segments and ramps along I-95 and SR 1 in May, 2008. The count locations are listed below:

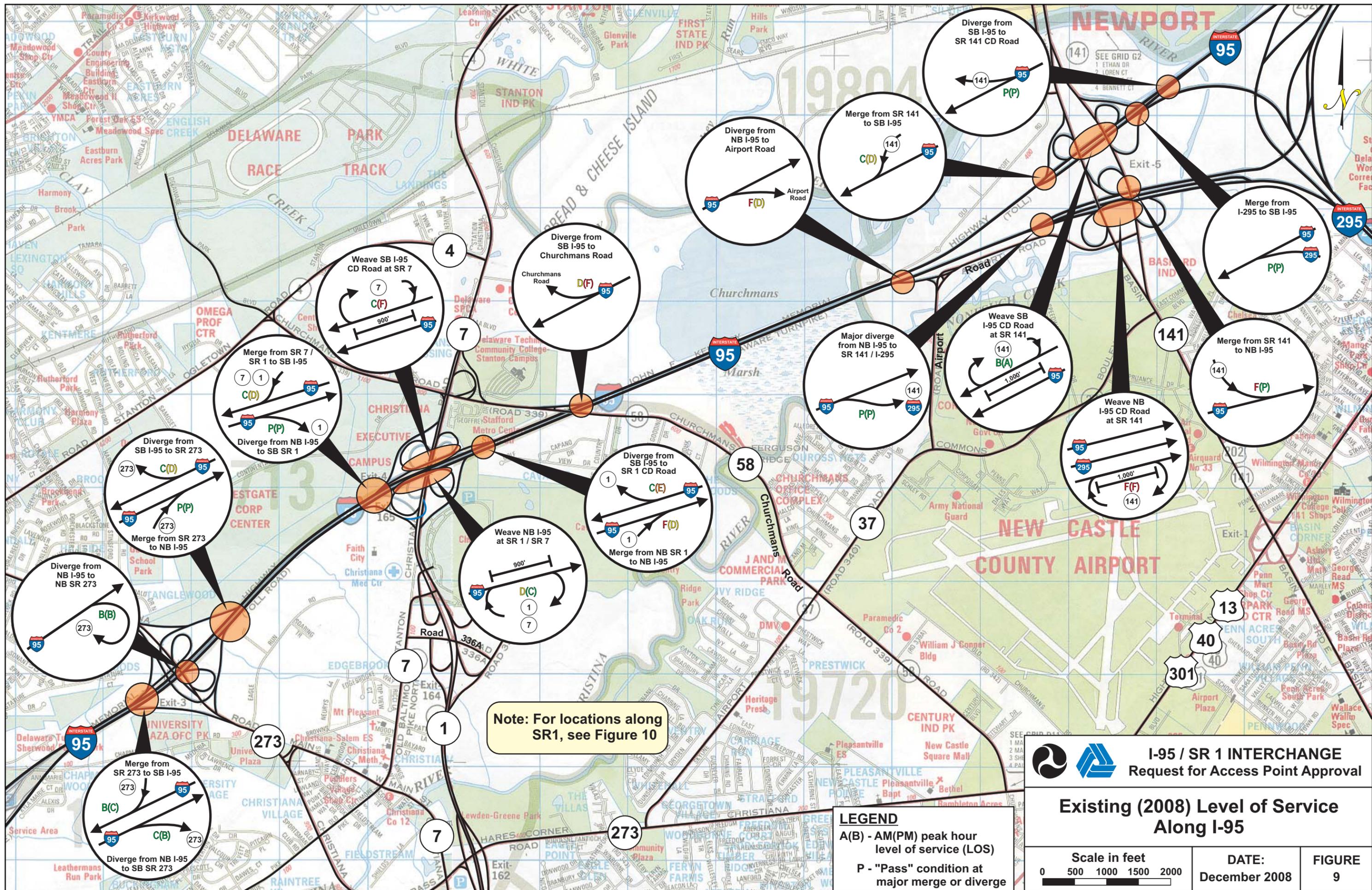
- I-95, north of SR 1 (manual count, peak hours only)
- SR 7, north of I-95 (tube count, southbound only)
- I-95 / SR 1 interchange ramps (tube counts)
- SR 1 / Mall interchange ramps (tube counts)
- SR 1 / Road A interchange ramps (tube counts)
- SR 1 / SR 273 interchange ramps (tube counts)

Additionally, the 2008 count data was supplemented with historical count data collected along I-95 in June 2006 (tube counts) and along SR 1 northbound, south of SR 273, in June 2005 (tube counts). The count data was seasonally adjusted and balanced to develop a network of existing traffic volumes for use in analyzing existing conditions at the I-95 / SR 1 interchange and the adjacent interchanges along I-95. **Figure 8** shows the resulting year 2008 AM and PM peak hour volumes along the I-95 corridor. It should be noted that ramp volumes at the I-95/SR 141 interchange were developed from historic data using appropriate growth factors, because the current construction activity prevented new counts from being collected. Average daily traffic (ADT) volumes are included with this report in **Appendix C**.

The balanced AM and PM peak hour volumes and the existing lane configurations were used for HCS analysis of existing conditions. The results indicate that four (4) movements within the I-95/SR 1 interchange currently operate at level of service (LOS) F. During the AM peak period, the merge from northbound SR 1 to northbound I-95 operates at LOS F, and the northbound freeway segment on I-95 north of the SR 1 interchange is over capacity. Field observations indicate that queues generally form along northbound I-95 and northbound SR 1 during the AM peak period as a result of these failing conditions. During the PM peak period, two weaves within the interchange are currently failing. The weave on the southbound I-95 C-D road between the northeast and northwest quadrant loop ramps operates at LOS F, as does the weave along southbound SR 7 between the I-95 loop ramps. Field observations indicate that queues from these failing weaves generally spill back from the C-D road into the mainline lanes on southbound I-95 during the PM peak period. It should be noted that all of these failing movements will be eliminated or improved by the preferred alternative.

Analyses were also performed at the adjacent interchanges of SR 273 to the south and SR 141/I-295 to the north. The mainline segment of southbound I-95 between SR 141 and Churchmans Road and the diverge from southbound I-95 to Churchmans Road both currently operate at LOS F during the PM peak hour. Additionally, the diverge from northbound I-95 to Airport Road currently operates at LOS during the AM peak hour due to heavy mainline volume. The operations at these locations will be improved upon completion of the I-95 widening project. **Figure 9** summarizes all existing levels of service along the I-95 corridor, while **Figure 10** summarizes the existing volumes and levels of service along the SR 1 corridor.





I-95 / SR 1 INTERCHANGE
 Request for Access Point Approval

Existing (2008) Level of Service Along I-95

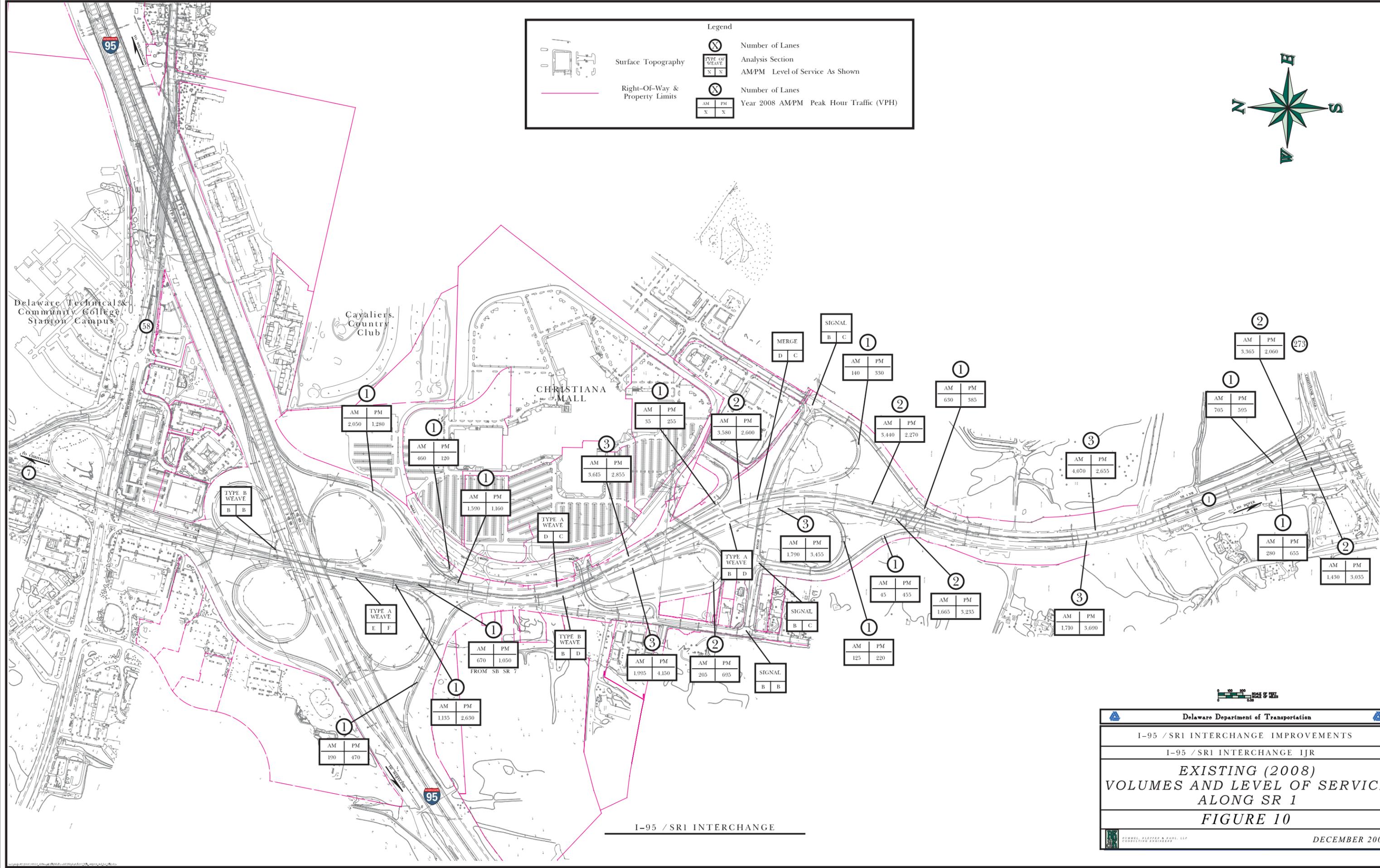
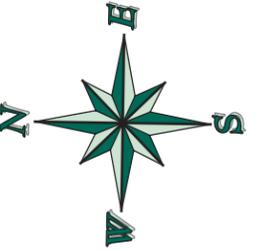


DATE: December 2008

FIGURE 9

Legend

- Surface Topography
- Right-Of-Way & Property Limits
- Number of Lanes
- Analysis Section
- AM/PM Level of Service As Shown
- Number of Lanes
- Year 2008 AM/PM Peak Hour Traffic (VPH)



Delaware Department of Transportation

I-95 / SRI INTERCHANGE IMPROVEMENTS
I-95 / SRI INTERCHANGE IJR

**EXISTING (2008)
VOLUMES AND LEVEL OF SERVICE
ALONG SR 1**

FIGURE 10

HUMMEL, KLEPPER & RAHL, LLP
CONSULTING ENGINEERS

DECEMBER 2008

I-95 / SRI INTERCHANGE

B. Implementation Year (2013) Volumes and Levels of Service

Preliminary schedule estimates indicate that construction of the I-95 / SR 1 interchange is expected to be completed in the year 2013. Implementation year (2013) volumes were determined using a straight-line interpolation between the balanced year 2008 volumes and the 2030 design year forecast volumes. HCS analyses were performed for the implementation year for the No-Build condition and the preferred Build alternative. It should be noted that the No-Build condition includes the I-95 widening project that is currently under construction and expected to be completed in early 2009.

The results of the HCS analyses for the 2013 No-Build condition indicate that four (4) movements within the I-95 / SR 1 interchange are projected to fail (LOS F), despite the improvements from the I-95 widening project. While the mainline segment of northbound I-95, north of SR 1, is expected to improve to LOS D during the AM peak hour, the merge from northbound SR 1 to northbound I-95 is still projected to operate at LOS F due to ramp volumes that exceed capacity. The two weaves within the interchange that currently operate at LOS F in the PM peak hour will continue to fail under 2013 No-Build conditions. Additionally, the diverge from southbound I-95 to the SR 1 C-D road is projected to fail during the PM peak hour in the year 2013 because projected traffic growth over the next five years will cause the single-lane ramp to be over capacity. **Figure 11** and **Figure 12** summarize the 2013 No-Build volumes and levels of service, respectively, along the I-95 corridor. **Figure 13** summarizes the 2013 No-Build volumes and levels of service along SR 1.

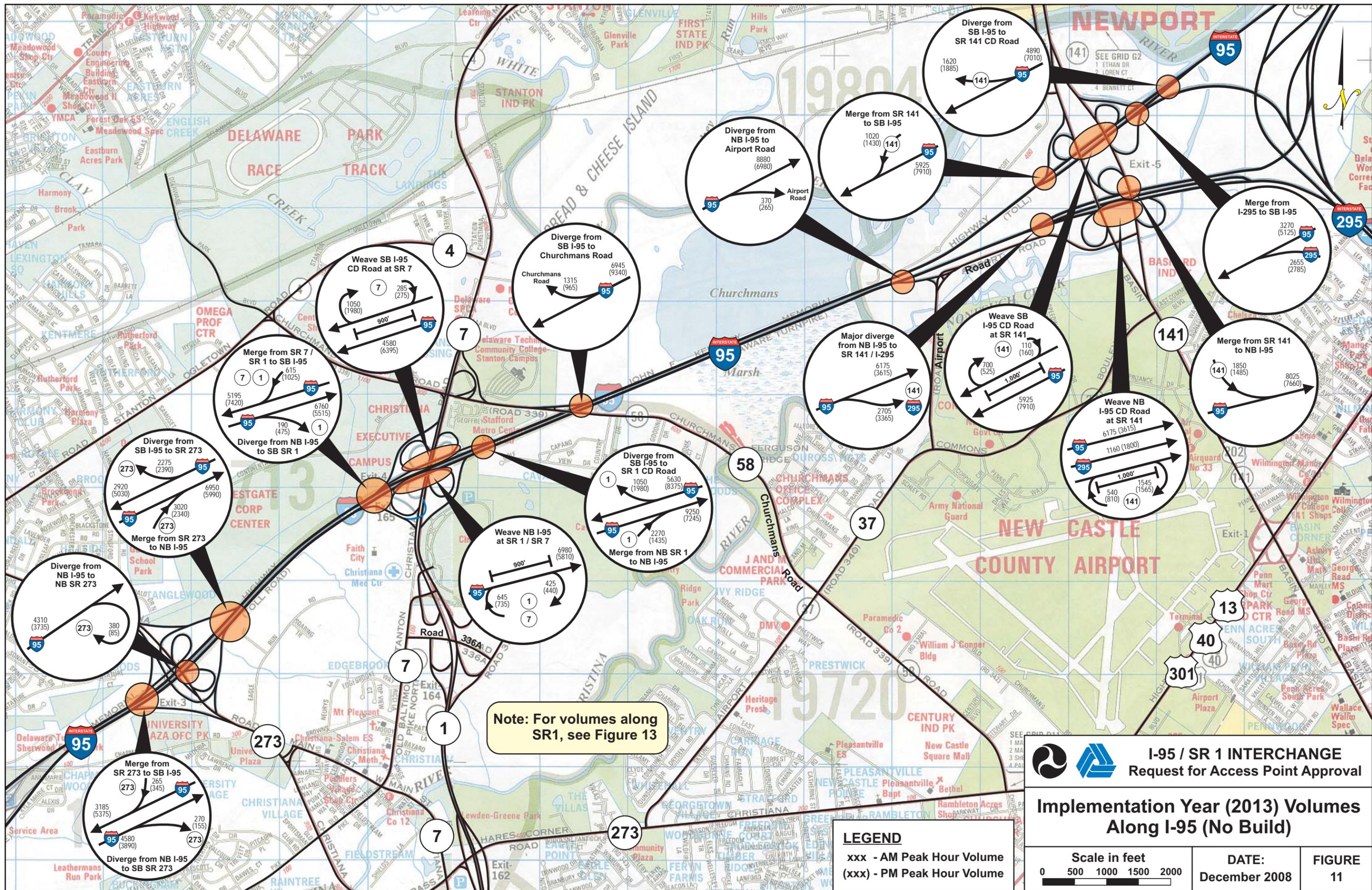
For the preferred alternative, all failing movements within the I-95 / SR 1 interchange are improved to LOS D or better in the year 2013. The failing merge from northbound SR 1 to northbound I-95 is replaced by two merges that are projected to operate acceptably during the peak hours in the year 2013. Ramp B carries northbound SR 1 traffic destined for Wilmington and joins northbound I-95 on the left side as a lane addition. The remaining traffic from northbound SR 1 joins northbound I-95 as a merge condition on the right side, which is projected to operate at LOS D or better during the peak hours in the year 2013. Meanwhile, the failing weaves within the interchange will be eliminated because the northwest loop is removed, and the failing southbound I-95 diverge to the C-D road is replaced by a two-lane diverge to proposed Ramp A, which is projected to operate under capacity. Additionally, the preferred alternative eliminates the loop ramp in the southeast quadrant, which replaces a weave along northbound I-95 with a merge condition projected to operate at LOS C during the peak hours in the year 2013. The two new traffic signals required as part of the preferred alternative along mall access roads are projected to operate at LOS A during the AM and PM peak hours. **Figure 14** and **Figure 15** summarize the 2013 Build volumes and levels of service, respectively, along the I-95 corridor. **Figure 16** summarizes the 2013 Build volumes and levels of service along SR 1.

C. Design Year (2030) Volumes and Levels of Service

Design year traffic forecasts were developed with DelDOT's regional traffic forecasting model (commonly referred to as the "Peninsula" model), which reflects growth through the year 2030. Like most travel demand models, the Delaware Peninsula model relies on the four basic steps (trip generation, trip distribution, mode choice, trip assignment) to generate forecasts. The Peninsula model is developed and maintained by DelDOT's Division of Planning, and the base year network (2005) has been calibrated to industry standards. The 2030 model runs used in this study included all related projects, including the I-95 widening, the US 301 project, and SR 1 widening project.

During the forecasting process, it was noted that the study area has experienced little to no historical growth between the years 2000 and 2008. This was attributed to several factors:

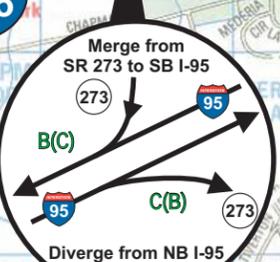
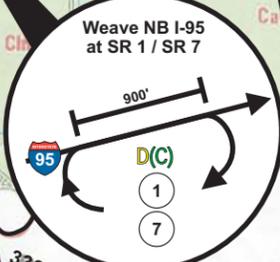
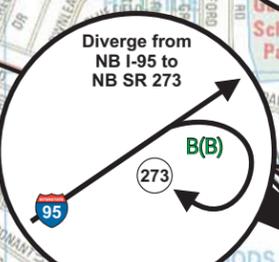
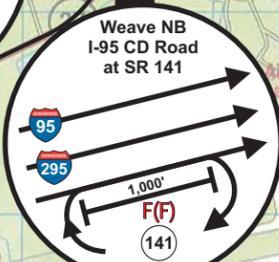
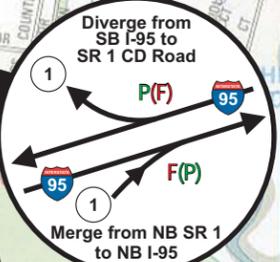
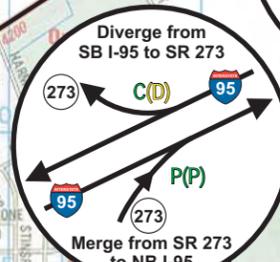
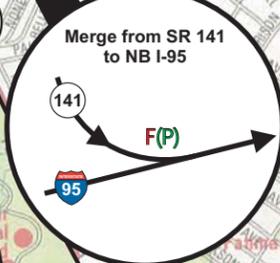
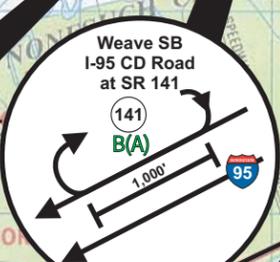
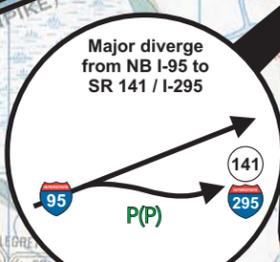
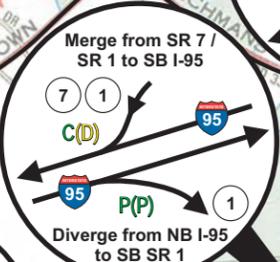
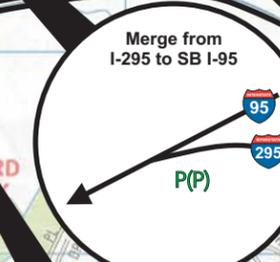
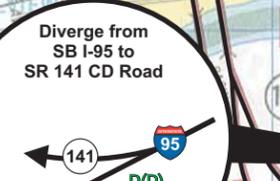
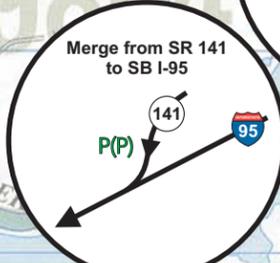
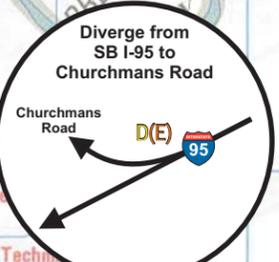
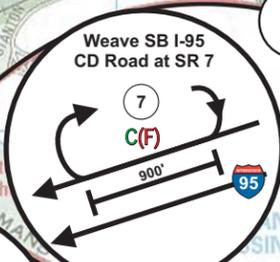
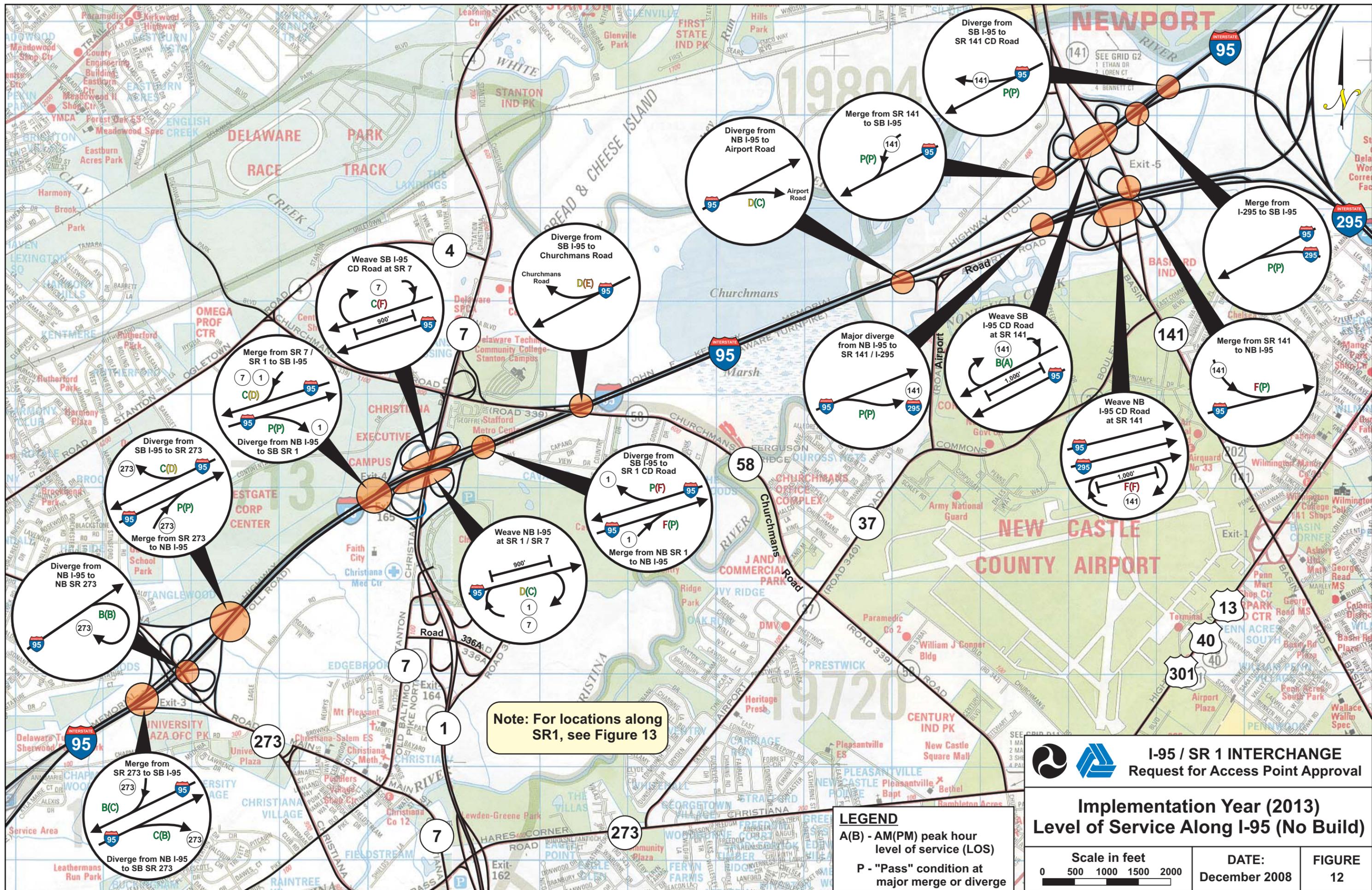
- The corridor is saturated and reached its capacity years ago.
- I-95 is an active work zone, which further reduces capacity and has forced some traffic to seek alternate routes.
- High gas prices and the struggling economy have caused people to travel less nationwide.

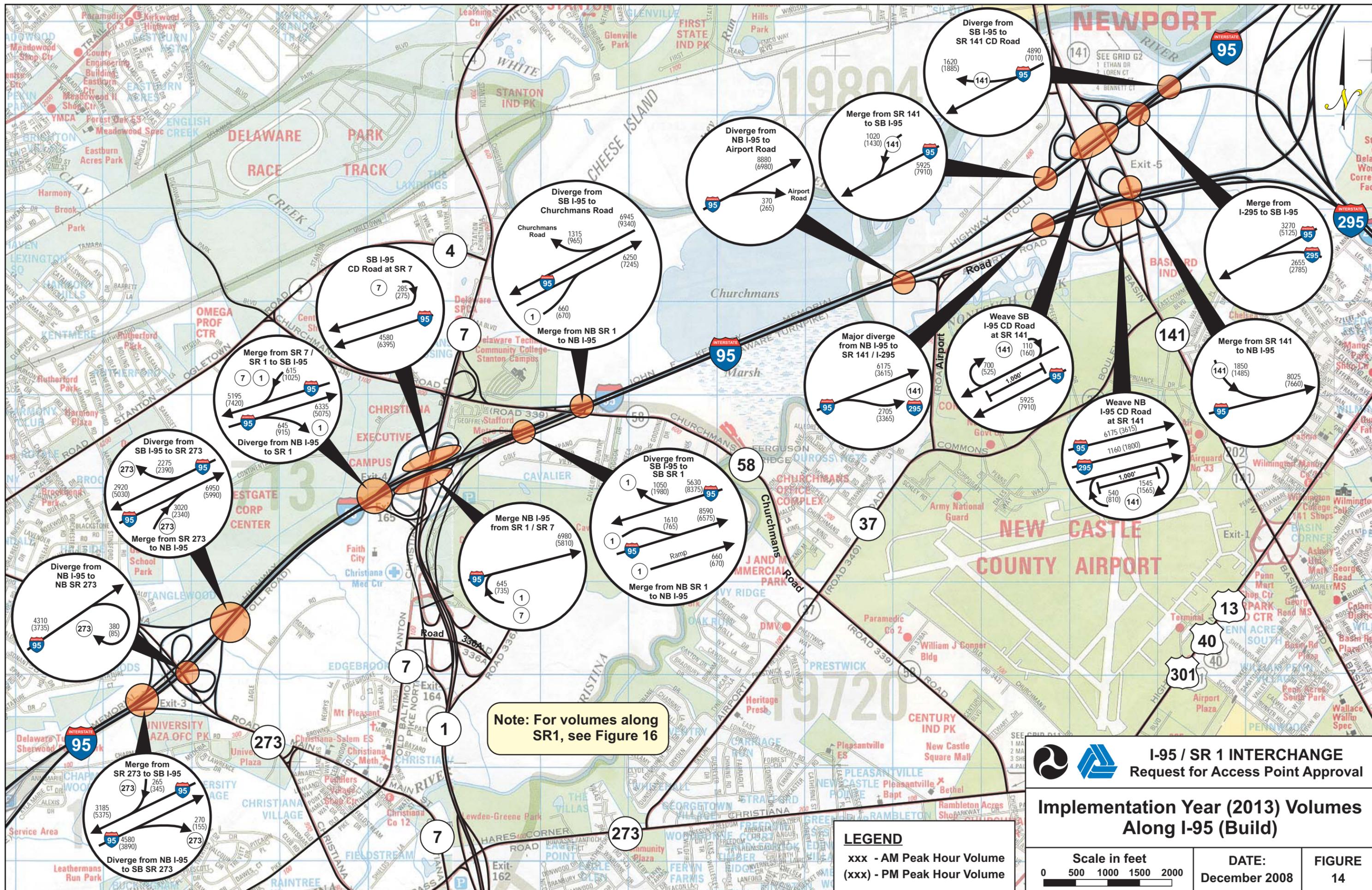


I-95 / SR 1 INTERCHANGE
 Request for Access Point Approval

Implementation Year (2013) Volumes Along I-95 (No Build)

Scale in feet 0 500 1000 1500 2000	DATE: December 2008	FIGURE 11
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Note: For volumes along SR1, see Figure 16

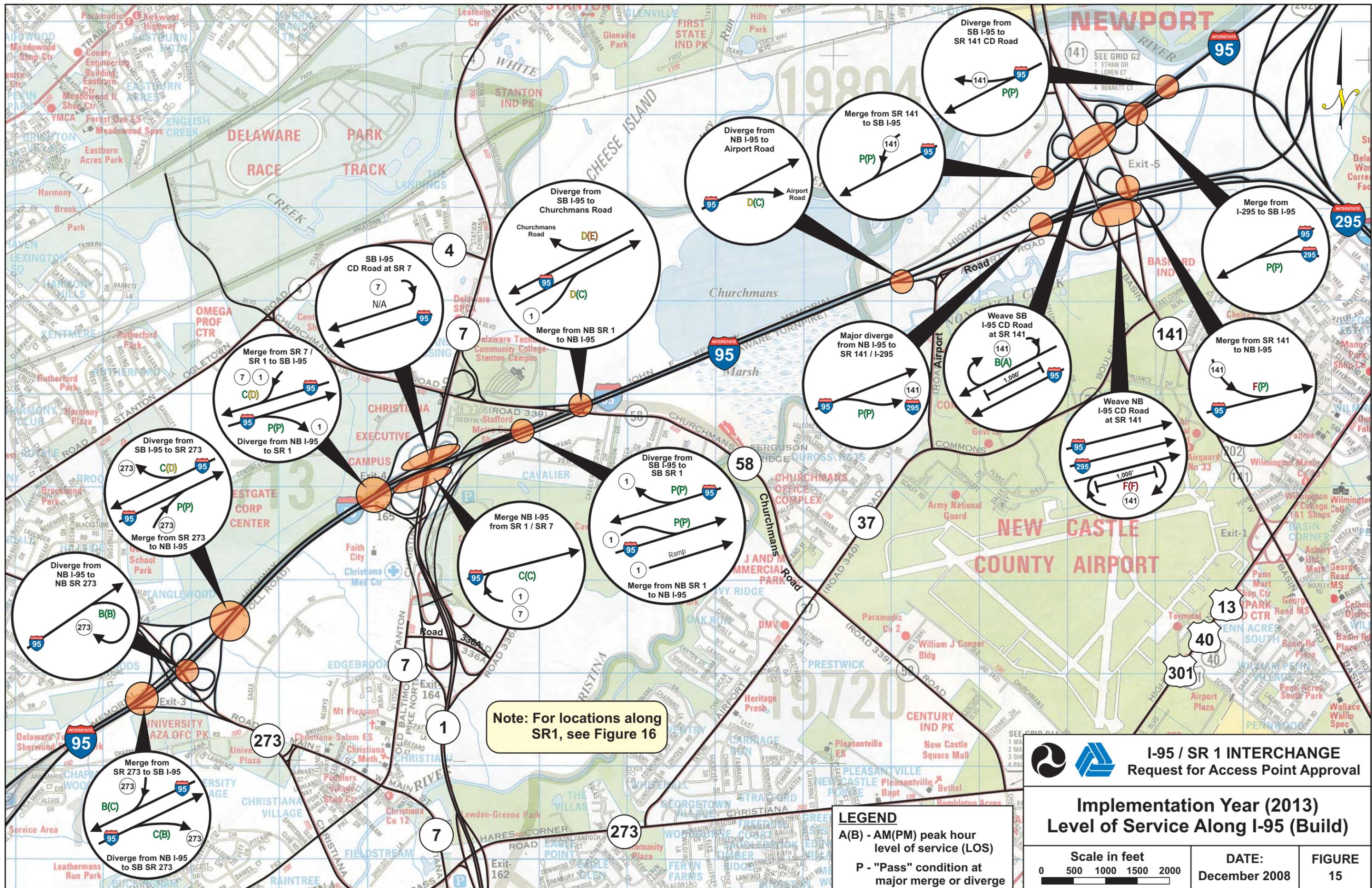
I-95 / SR 1 INTERCHANGE
Request for Access Point Approval

Implementation Year (2013) Volumes
Along I-95 (Build)

LEGEND
xxx - AM Peak Hour Volume
(xxx) - PM Peak Hour Volume



DATE: December 2008
FIGURE 14



Note: For locations along SR1, see Figure 16

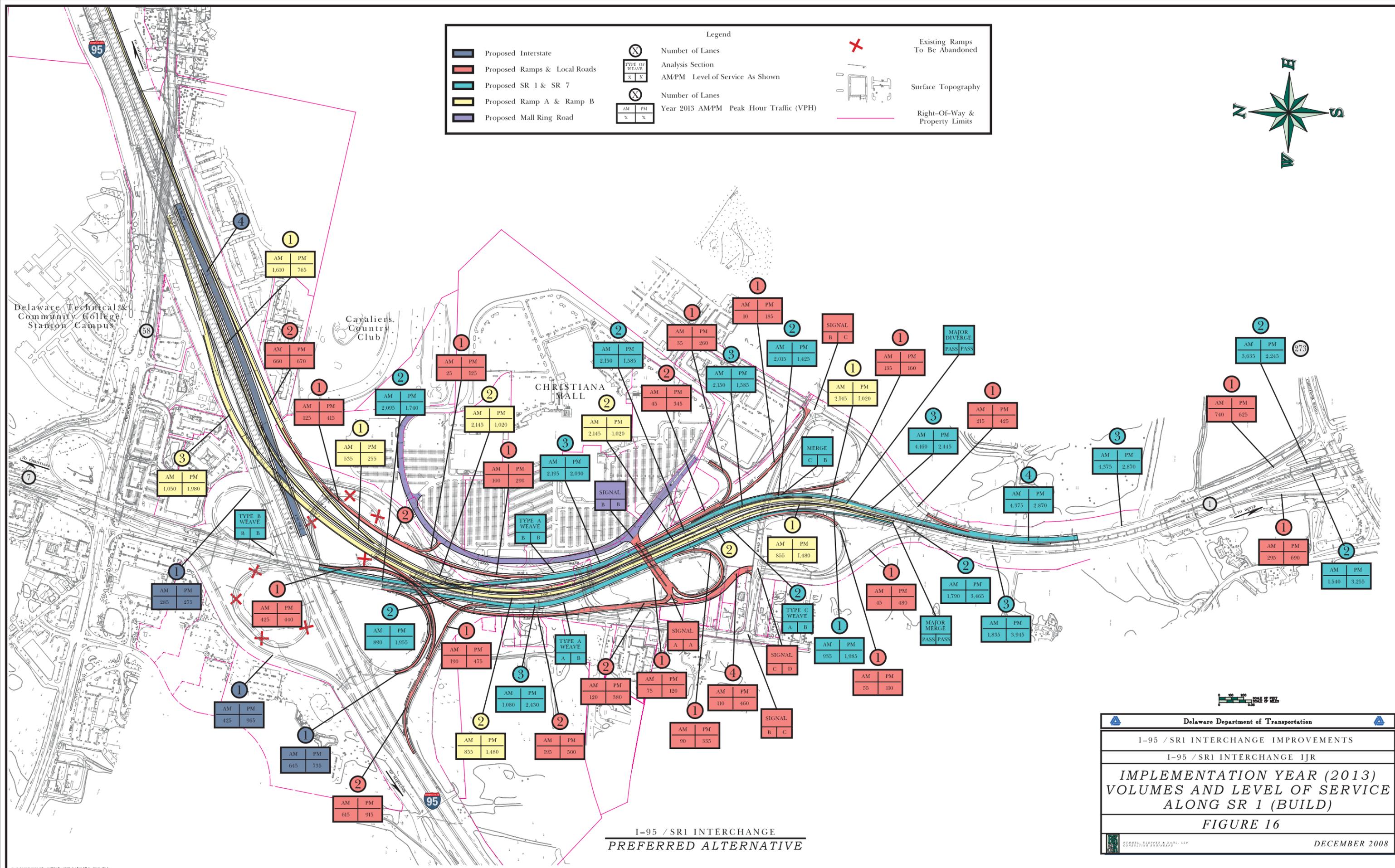
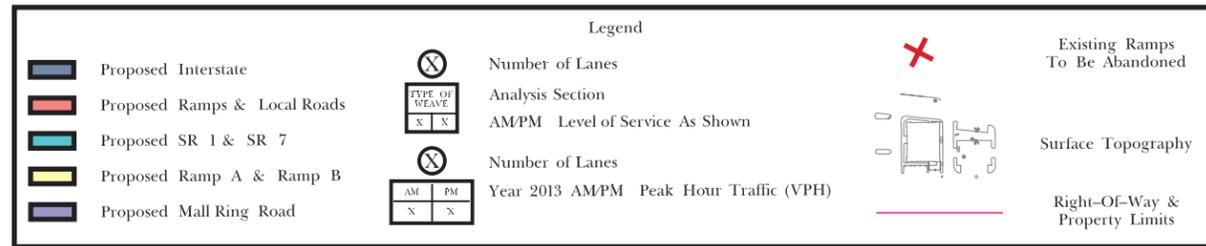
I-95 / SR 1 INTERCHANGE
Request for Access Point Approval

Implementation Year (2013)
Level of Service Along I-95 (Build)

LEGEND
A(B) - AM(PM) peak hour level of service (LOS)
P - "Pass" condition at major merge or diverge



DATE: December 2008
FIGURE 15



I-95 / SRI INTERCHANGE
PREFERRED ALTERNATIVE

Delaware Department of Transportation

I-95 / SRI INTERCHANGE IMPROVEMENTS

I-95 / SRI INTERCHANGE IJR

IMPLEMENTATION YEAR (2013)

VOLUMES AND LEVEL OF SERVICE

ALONG SR 1 (BUILD)

FIGURE 16

DECEMBER 2008

All these factors were taken into account when preparing the forecasts. The forecasts reflect some latent demand due to the extra capacity resulting from the I-95 widening and the preferred alternative, in addition to the growth projected in the model. The resulting traffic forecasts indicate a projected growth rate of approximately 1.5 percent per year on SR 1 and 1.25 percent per year on I-95 between 2008 and 2030. The heavy traffic movement between northbound SR 1 and northbound I-95 (carried by future Ramp B) and the reverse movement between southbound I-95 and southbound SR 1 (carried by future Ramp A) are projected to experience growth of approximately 2.5 percent per year. Average daily traffic (ADT) forecasts are included with this report in **Appendix C**. Peak hour forecasts were generated from the ADT forecasts using appropriate K-factors (percent of daily volume in the peak hour) and D-factors (directional distribution) from existing count data. For I-95, the K and D factors were 7 percent and 59 percent, respectively. For SR 1, the K and D factors were 7.5 percent and 59 percent.

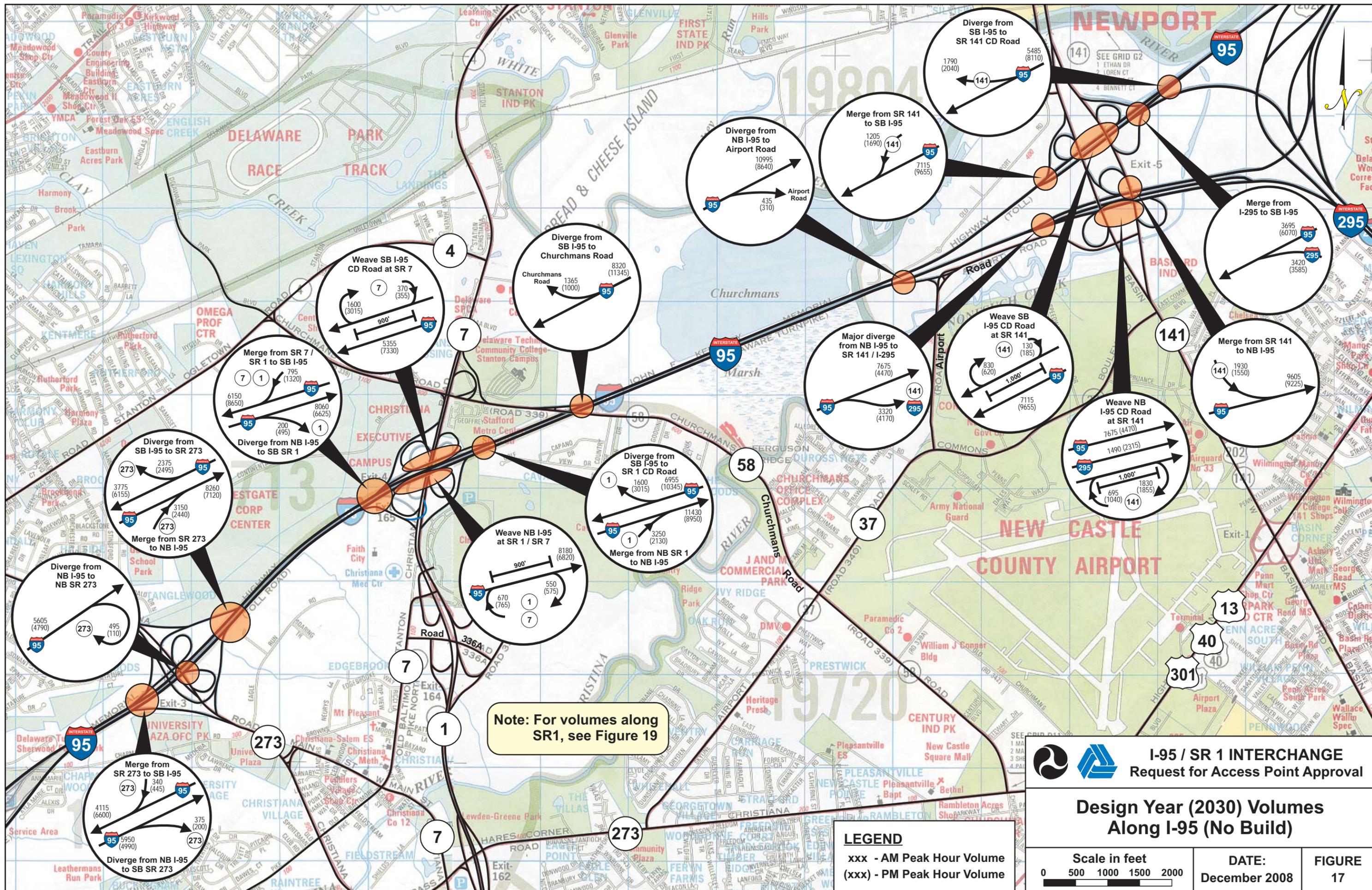
HCS analyses were performed for the design year (2030) for the No-Build condition and the preferred Build alternative using the forecast volumes. It should be noted that the No-Build condition includes the I-95 widening project that is currently under construction and expected to be completed in early 2009. Therefore, the Build and No-Build traffic volumes used in the analysis are the same, because the interchange improvements are primarily an operational improvement, not a capacity improvement.

The results of the HCS analyses for the 2030 No-Build condition indicate that nine (9) movements within the I-95 / SR 1 interchange are projected to fail (LOS F) during at least one peak hour, despite the improvements from the I-95 widening project (including four (4) movements projected to operate at LOS F during both the AM and PM peak hours). The failing movements include the merge from northbound SR 1 to northbound I-95, mainline northbound I-95 north of SR 1, the diverge from southbound I-95 to the SR 1 C-D road, the weave along the southbound I-95 C-D road at SR 1, the merge from the SR 1 C-D road to southbound I-95, mainline southbound I-95 south of SR 1, the weave on southbound SR 7 between the I-95 loop ramps, the merge on northbound SR 1 from Road A, and the weave on northbound SR 1 between the Mall and I-95. **Figure 17** and **Figure 18** summarize the 2030 No-Build peak hour volumes and levels of service, respectively, along the I-95 corridor. **Figure 19** summarizes the 2030 No-Build peak hour volumes and levels of service along SR 1.

For the preferred alternative, the results of the HCS analyses for the 2030 Build condition indicate operations within the I-95 / SR 1 interchange are projected to improve significantly compared to the No-Build condition, although six (6) movements are still projected to fail (LOS F) during one peak hour (refer to **Tables 1 - 4** on pages 16 to 21). The following movements are either eliminated or improved to acceptable operations under the Build condition:

- Diverge from southbound I-95 to the SR 1 C-D road (replaced with diverge to Ramp A)
- Weave along the southbound I-95 C-D road at SR 1 (eliminated)
- Weave on southbound SR 7 between the I-95 loop ramps (eliminated)
- Merge on northbound SR 1 from Road A (improved to LOS C by separating local / through traffic)
- Weave on northbound SR 1 between the Mall and I-95 (improved to LOS B by separating local and through traffic)

All six (6) movements projected to operate at LOS F under the Build conditions in 2030 are expected to operate under capacity (LOS E or better) through the year 2023. Using linear interpolation, the years in which the failing movements are projected to surpass the LOS F threshold were calculated. The merge from northbound SR 1 to northbound I-95 is projected to reach LOS F in the year 2026, while the flyover portion of Ramp B is projected to exceed its single-lane capacity in the year 2023. The widened segment of northbound I-95, north of SR 1, is projected to exceed its 5-lane capacity in the year 2025. Along southbound I-95, the merge from the SR 1 C-D road and the mainline segment south of SR 1 are projected to reach LOS F conditions in the year 2029. Along SR 1, Ramp A is projected to exceed its single-lane capacity in the year 2023 as it joins southbound SR 1. It should be noted that the proposed SR 1 widening project would eliminate this failing condition by allowing Ramp A to carry two lanes onto southbound SR 1 (see Related Projects, page 9). The two new traffic signals required as part of the preferred alternative along mall access roads are projected to operate at LOS A during the AM and PM peak hours. **Figure 20** and **Figure 21** summarize the 2030 Build volumes and levels of service, respectively, along the I-95 corridor. **Figure 22** summarizes the 2030 Build volumes and levels of service along SR 1.



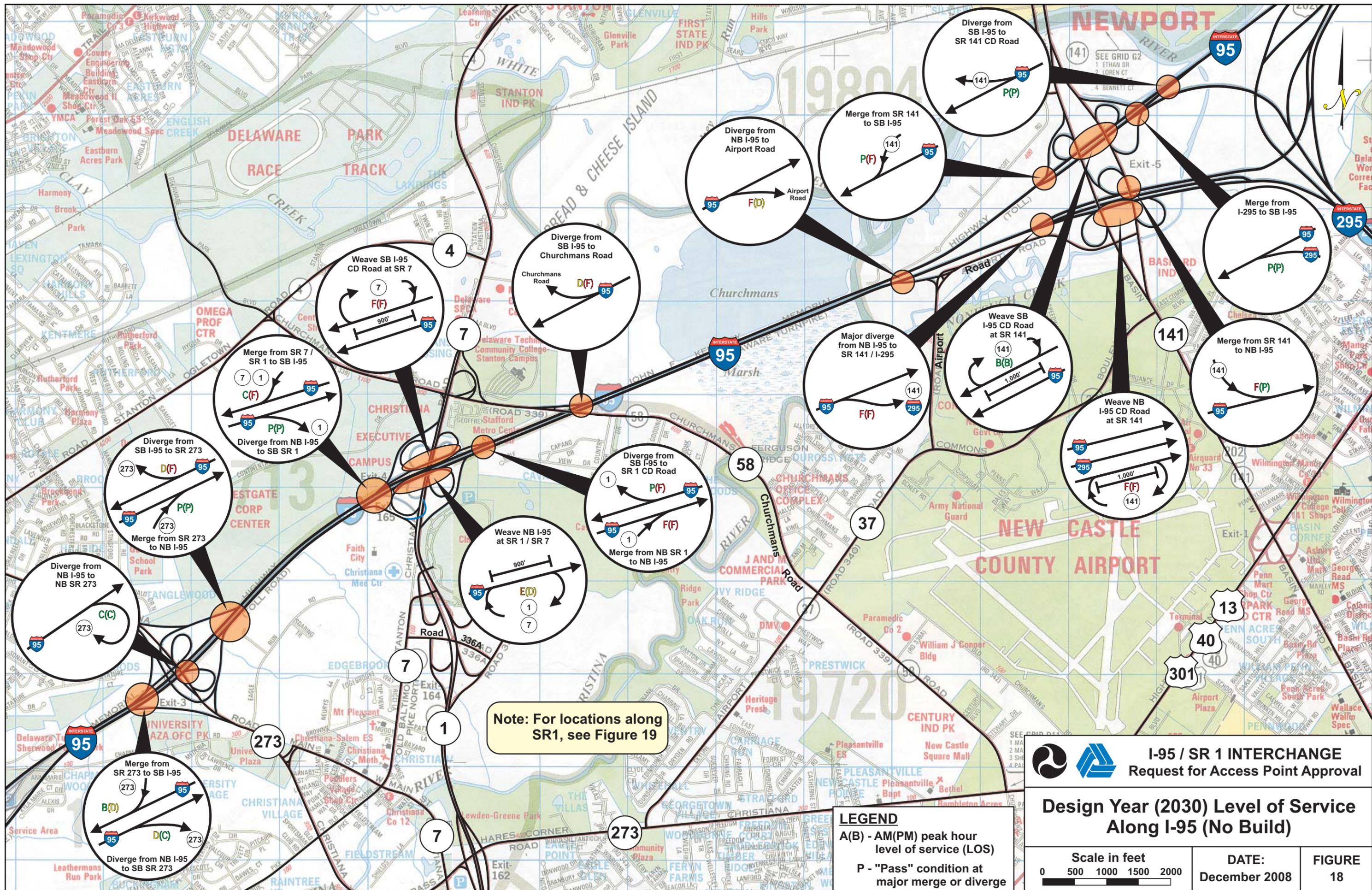
I-95 / SR 1 INTERCHANGE
 Request for Access Point Approval

Design Year (2030) Volumes
 Along I-95 (No Build)

Scale in feet
 0 500 1000 1500 2000

DATE:
 December 2008

FIGURE
 17



Note: For locations along SR1, see Figure 19

LEGEND
 A(B) - AM(PM) peak hour level of service (LOS)
 P - "Pass" condition at major merge or diverge

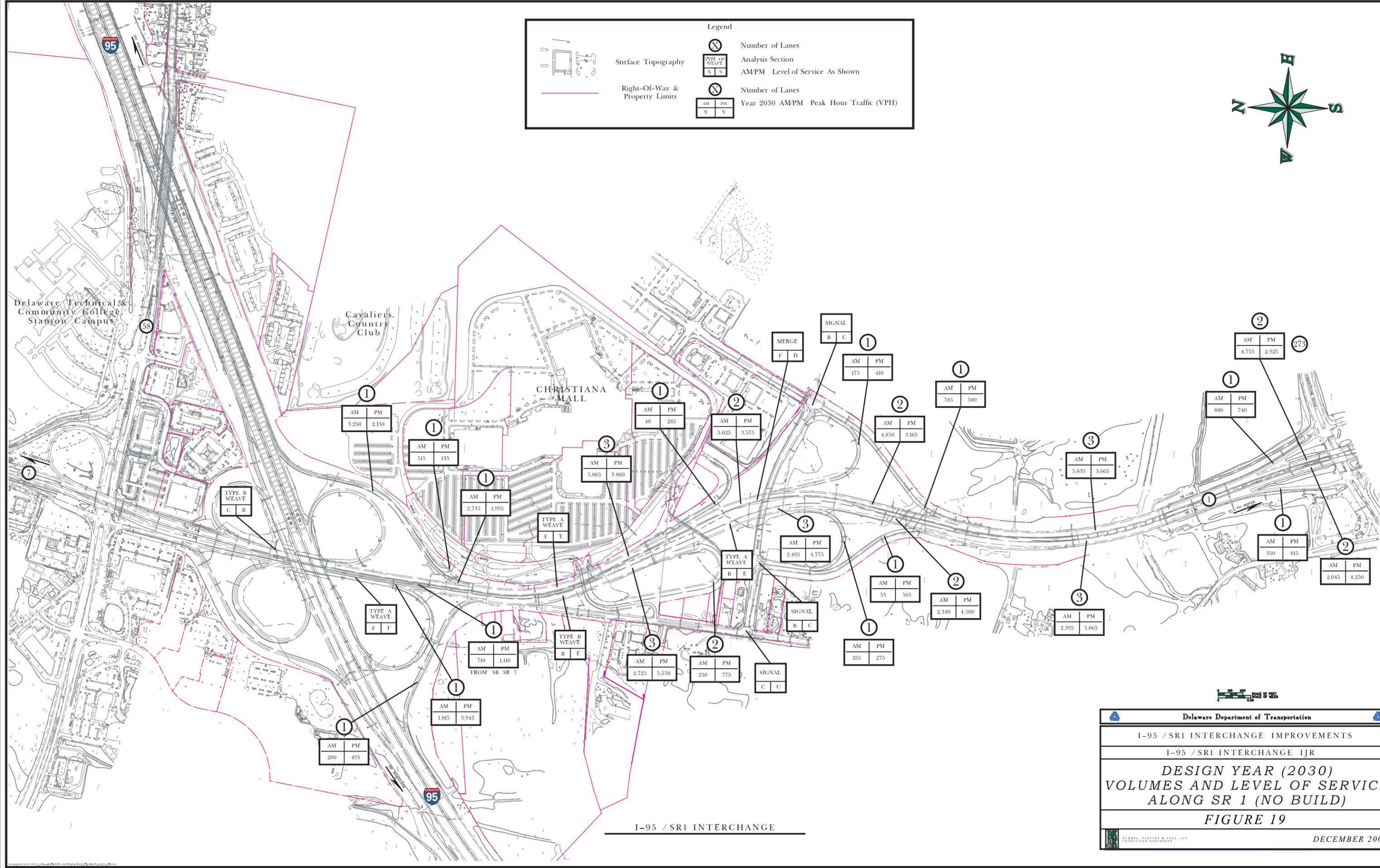
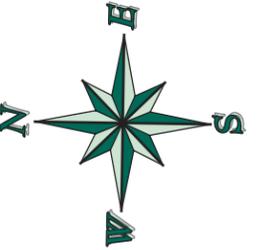
I-95 / SR 1 INTERCHANGE
 Request for Access Point Approval

Design Year (2030) Level of Service Along I-95 (No Build)

Scale in feet 0 500 1000 1500 2000	DATE: December 2008	FIGURE 18
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Legend

- Surface Topography
- Right-Of-Way & Property Limits
- Number of Lanes
- Analysis Section
- AM/PM Level of Service As Shown
- Number of Lanes
- Year 2030 AM/PM Peak Hour Traffic (VPH)



Delaware Department of Transportation

I-95 / SRI INTERCHANGE IMPROVEMENTS
I-95 / SRI INTERCHANGE IJR

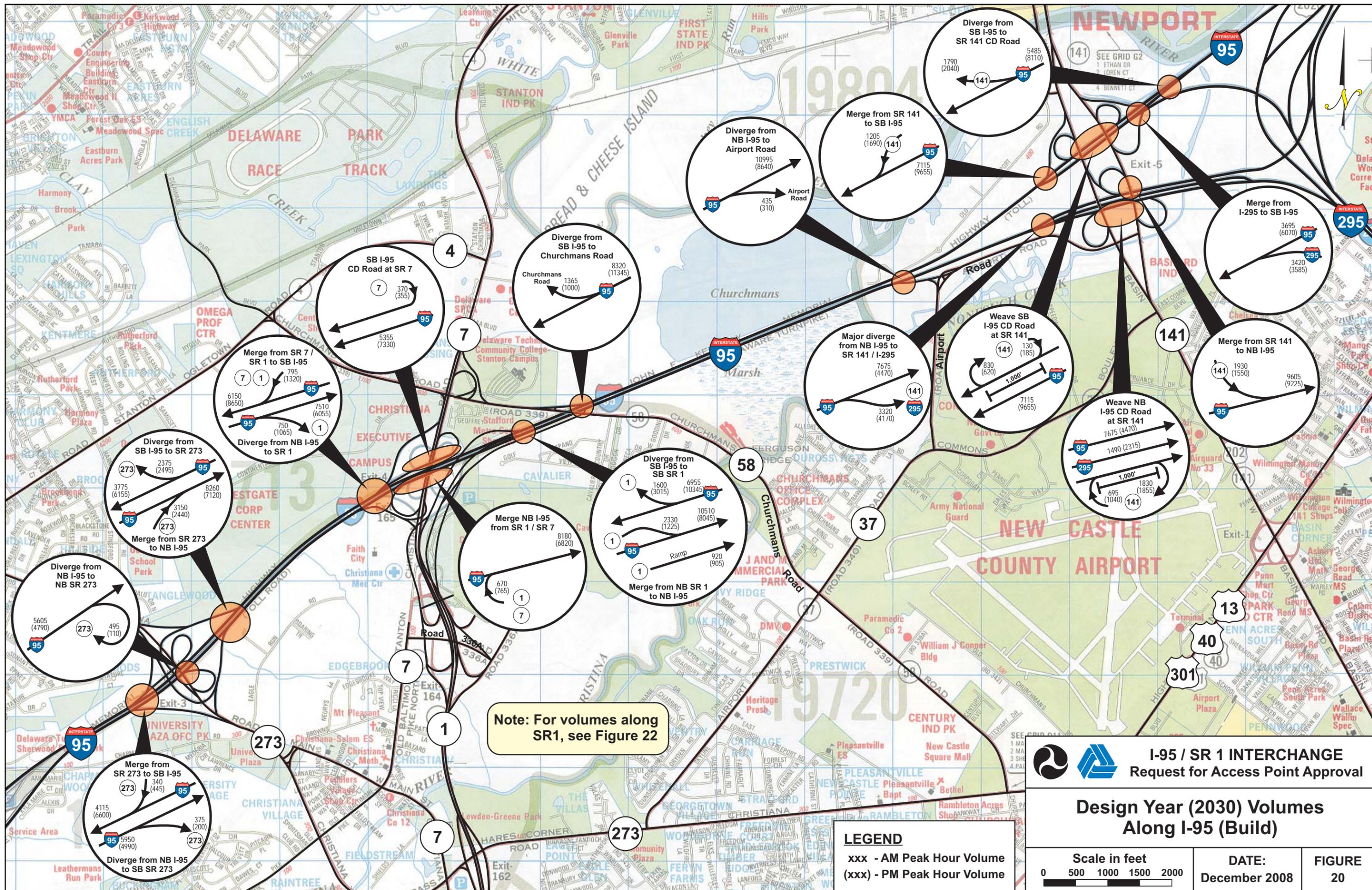
**DESIGN YEAR (2030)
VOLUMES AND LEVEL OF SERVICE
ALONG SR 1 (NO BUILD)**

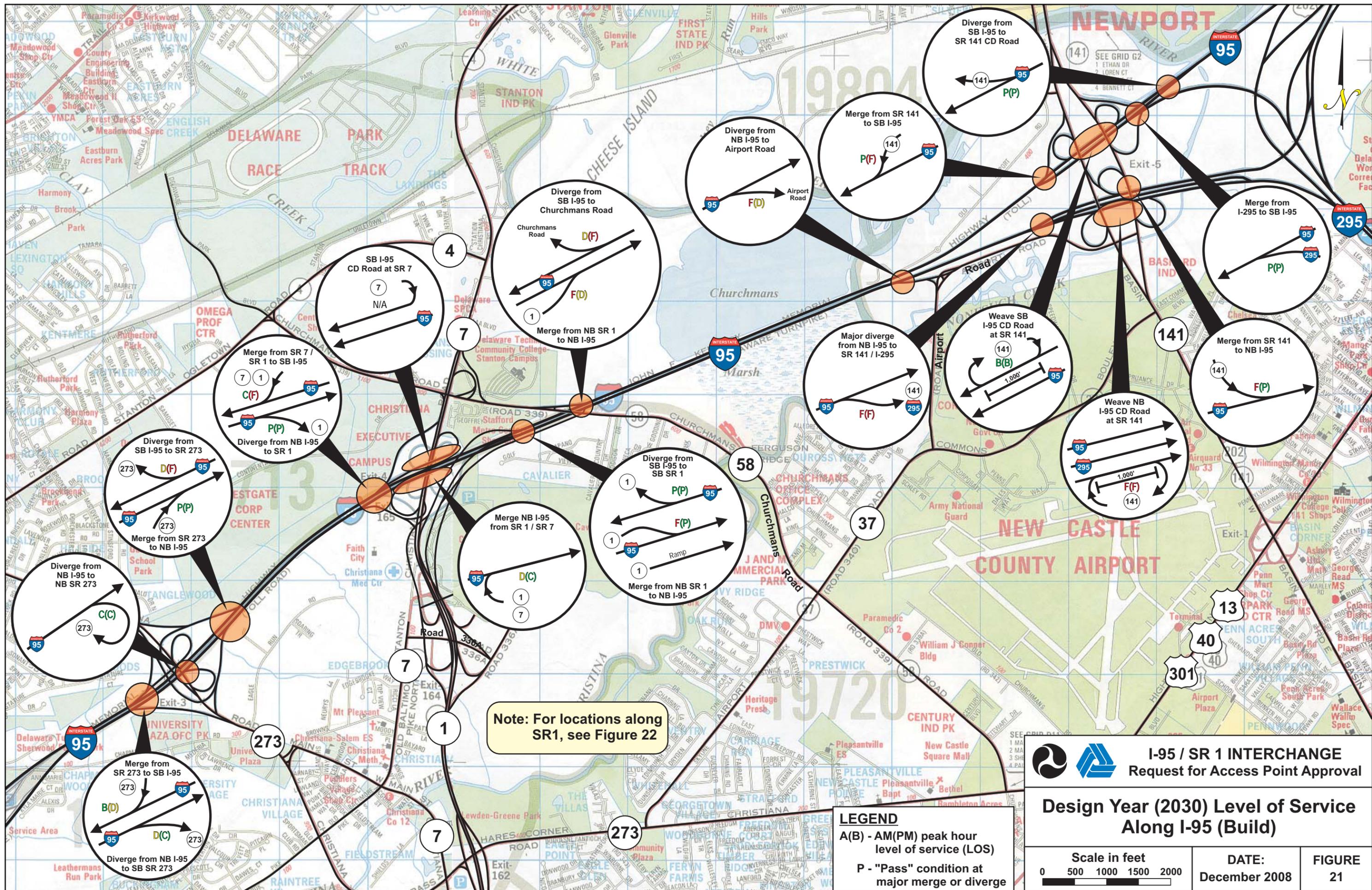
FIGURE 19

HUMMEL, KLEPPER & RAHL, LLP
CONSULTING ENGINEERS

DECEMBER 2008

I-95 / SRI INTERCHANGE





Note: For locations along SR1, see Figure 22

I-95 / SR 1 INTERCHANGE
Request for Access Point Approval

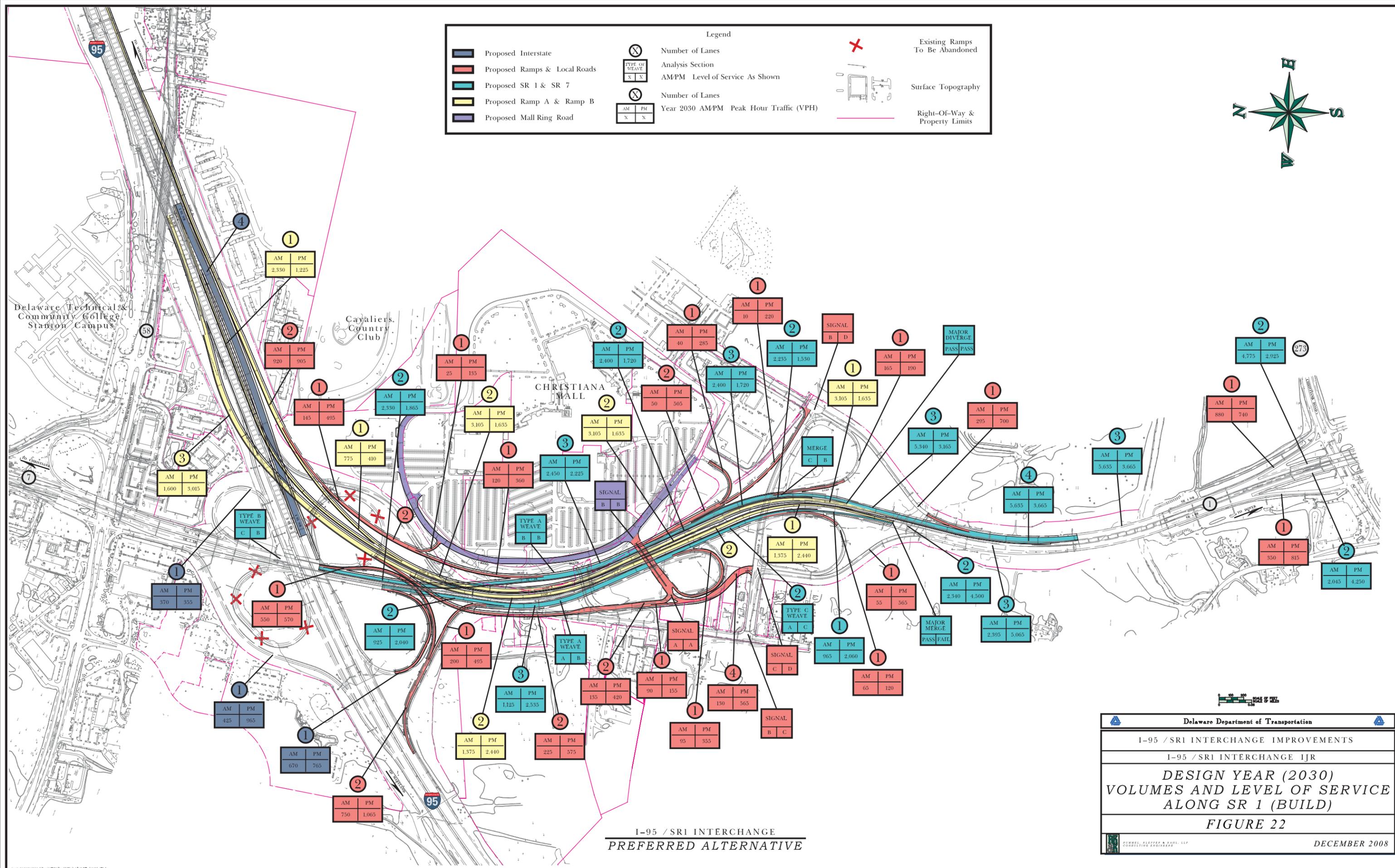
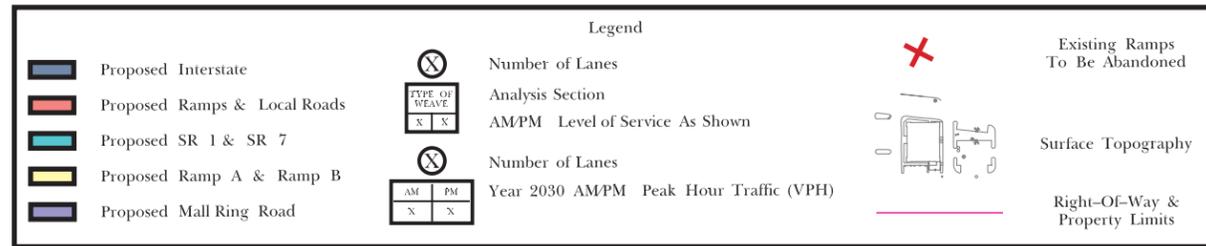
Design Year (2030) Level of Service Along I-95 (Build)

LEGEND
A(B) - AM(PM) peak hour level of service (LOS)
P - "Pass" condition at major merge or diverge

Scale in feet
0 500 1000 1500 2000

DATE:
December 2008

FIGURE
21



I-95 / SRI INTERCHANGE
PREFERRED ALTERNATIVE

Delaware Department of Transportation

I-95 / SRI INTERCHANGE IMPROVEMENTS

I-95 / SRI INTERCHANGE IJR

DESIGN YEAR (2030)

VOLUMES AND LEVEL OF SERVICE

ALONG SR 1 (BUILD)

FIGURE 22

DECEMBER 2008

**Table 1.
Interstate 95 AM and PM Peak Hour Levels of Service
(Study Interchange)**

Junction	Movement	Existing Conditions (2008)		Implementation Year (2013)				Design Year (2030)			
		AM	PM	No Build#		Build		No Build#		Build	
				AM	PM	AM	PM	AM	PM	AM	PM
SR 1 Interchange	<i>NB I-95, south of SR 1</i>	C	C	C	C	C	C	D	C	D	C
	<i>Diverge, NB I-95 to SB SR 1</i>	*	*	*	*	*	*	*	*	*	*
	<i>Weave, NB I-95 at SR 1</i>	D	C	D	C	N/A	N/A	E	D	N/A	N/A
	<i>Merge, NB I-95 from SB SR 7</i>	N/A	N/A	N/A	N/A	C	C	N/A	N/A	D	C
	<i>Merge, NB I-95 from NB SR 1</i>	F	D	F*	*	D	C	F*	F*	F	D
	<i>Left Merge, NB I-95 from NB SR 1</i>	N/A	N/A	N/A	N/A	*	*	N/A	N/A	F*	*
	<i>NB I-95, north of SR 1</i>	F	D	D	C	D	C	F	D	F	D
	<i>SB I-95, north of SR 1</i>	C	E	C	D	C	D	C	E	C	E
	<i>Diverge, SB I-95 to SR 1 C-D Road</i>	C	E	*	F*	N/A	N/A	*	F*	N/A	N/A
	<i>Diverge, SB I-95 to SB SR 1</i>	N/A	N/A	N/A	N/A	*	*	N/A	N/A	*	*
	<i>Weave, SB I-95 C-D Road at SR 1</i>	C	F	C	F	N/A	N/A	F	F	N/A	N/A
	<i>Merge, SB I-95 from SR 1 C-D Road</i>	C	D	C	D	C	D	C	F	F	F
<i>SB I-95, south of SR 1</i>	C	D	C	D	C	D	D	D	F	F	

No Build analysis includes 5th lane widening on I-95. Project is currently under construction, with expected completion in early 2009
* Ramp junction is a lane drop or lane addition. See **Table 2** for capacity checks.

Table 1. (Continued)
Interstate 95 AM and PM Peak Hour Levels of Service
(Adjacent Interchanges)

Junction	Movement	Existing Conditions (2008)		Implementation Year (2013)				Design Year (2030)				
		AM	PM	No Build#		Build		No Build#		Build		
				AM	PM	AM	PM	AM	PM	AM	PM	
SR 273 Interchange	NB I-95, south of SR 273	B	B	C	B	C	B	C	C	C	C	C
	Diverge, NB I-95 to SB SR 273	C	B	C	B	C	B	C	D	C	D	C
	Diverge, NB I-95 to NB SR 273	B	B	B	B	B	B	C	C	C	C	C
	Merge, NB I-95 from SR 273	*	*	*	*	*	*	*	*	*	*	*
	NB I-95, north of SR 273	C	C	C	C	C	C	C	D	C	D	C
	SB I-95, north of SR 273	C	D	C	D	C	D	D	D	D	D	F
	Diverge, SB I-95 to SR 273	C	D	C	D	C	D	D	D	D	D	F
	Merge, SB I-95 from SR 273	B	C	B	C	B	C	B	D	B	D	D
	SB I-95, south of SR 273	B	C	B	C	B	C	B	D	B	D	D
	Diverge, NB I-95 to Airport Road	F	D	D	C	D	C	C	F	D	F	D
I-295/SR 141 Interchange (Plus Churchmans Road and Airport Rd Ramps)	NB I-95, Airport Road to SR 141/I-295	E	D	D	C	D	C	D	D	F	D	D
	Diverge, NB I-95 to SR 141/I-295	*	*	*	*	*	*	F*	F*	F*	F*	F*
	Weave, NB I-95 C-D Road at SR 141	F	F	F	F	F	F	F	F	F	F	F
	Merge, NB I-95 from SR 141	F*	*	F*	*	F*	*	F*	*	F*	*	*
	NB I-95, north of SR 141	E	D	D	D	D	D	E	D	E	D	D
	SB I-95, north of SR 141	B	C	B	C	B	C	B	C	C	D	D
	Diverge, SB I-95 to SR 141 C-D Road	*	*	*	*	*	*	*	*	*	*	*
	Weave, SB I-95 C-D Road at SR 141	B	A	B	A	B	A	B	B	B	B	B
	Merge, SB I-95 from I-295	*	*	*	*	*	*	*	*	*	*	*
	Merge, SB I-95 from SR 141	C	D	*	*	*	*	*	F*	*	F*	F*
SB I-95, south of SR 141	D	F	C	D	C	D	D	D	D	D	F	
Diverge, SB I-95 to Churchmans Road	D	F	D	E	D	E	D	D	D	D	F	

Table 2.
I-95 Capacity Checks at Lane Drops and Lane Additions

Conditions	Movement	Upstream Freeway LOS		Downstream Freeway LOS		Ramp Volume (pc/h)		Ramp Capacity (pc/h)		Pass/Fail	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Existing Conditions	Diverge, NB I-95 to SB SR 1	C	C	D	C	209	517	2,100	2,100	Pass	Pass
	Merge, NB I-95 from SR 273	B	B	C	C	3,284	2,542	4,100	4,100	Pass	Pass
	Diverge, NB I-95 to I-295/SR 141	E	D	E	C	2,800	3,476	4,400	4,400	Pass	Pass
	Merge, NB I-95 from SR 141	E	C	E	D	2,008	1,612	1,900	1,900	Fail	Pass
	Diverge, SB I-95 to SR 141 CD	B	C	B	D	1,733	2,030	4,400	4,400	Pass	Pass
	Merge, SB I-95 from I-295	B	D	C	C	2,712	2,844	4,400	4,400	Pass	Pass
2013 No Build	Diverge, NB I-95 to SB SR 1	C	C	D	C	209	523	2,100	2,100	Pass	Pass
	Merge, NB I-95 from NB SR 1	D	C	D	C	2,497	1,579	2,100	2,100	Fail	Pass
	Merge, NB I-95 from SR 273	B	B	C	C	3,322	2,574	4,100	4,100	Pass	Pass
	Diverge, SB I-95 to SB SR 1 CD	C	D	C	D	1,155	2,178	2,100	2,100	Pass	Fail
	Diverge, NB I-95 to I-295/SR 141	D	C	D	B	2,976	3,702	4,400	4,400	Pass	Pass
	Merge, NB I-95 from SR 141	D	B	D	D	2,035	1,634	1,900	1,900	Fail	Pass
	Diverge, SB I-95 to SR 141 CD	B	C	C	D	1,782	2,074	4,400	4,400	Pass	Pass
	Merge, SB I-95 from I-295	C	D	C	D	2,921	3,064	4,400	4,400	Pass	Pass
	Merge, SB I-95 from SR 141	C	D	C	D	1,122	1,573	2,200	2,200	Pass	Pass
	Diverge, NB I-95 to SB SR 1	D	C	E	D	220	545	2,100	2,100	Pass	Pass
	Merge, NB I-95 from NB SR 1	E	D	F	F	3,575	2,343	2,100	2,100	Fail	Fail
	Merge, NB I-95 from SR 273	C	C	D	C	3,465	2,684	4,100	4,100	Pass	Pass
2030 No Build	Diverge, SB I-95 to SB SR 1 CD	C	E	C	D	1,760	3,317	2,100	2,100	Pass	Fail
	Diverge, NB I-95 to I-295/SR 141	F	D	E	C	3,652	4,587	4,400	4,400	Fail	Fail
	Merge, NB I-95 from SR 141	E	C	E	D	2,123	1,705	1,900	1,900	Fail	Pass
	Diverge, SB I-95 to SR 141 CD	C	D	C	E	1,969	2,244	4,400	4,400	Pass	Pass
	Merge, SB I-95 from I-295	C	E	C	E	3,762	3,944	4,400	4,400	Pass	Pass
	Merge, SB I-95 from SR 141	C	E	D	F	1,326	1,859	2,200	2,200	Pass	Fail

**Table 2. (Continued)
Capacity Checks at Lane Drops and Lane Additions**

Conditions	Movement	Upstream Freeway LOS		Downstream Freeway LOS		Ramp Volume (pc/h)		Ramp Capacity (pc/h)		Pass/Fail	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
2013 Build	<i>Diverge, NB I-95 to SR 1 / SR 7</i>	C	C	D	C	677	1,007	2,100	2,100	Pass	Pass
	<i>Merge, NB I-95 from SR 273</i>	B	B	C	C	3,322	2,574	4,100	4,100	Pass	Pass
	<i>Left Merge, NB I-95 from NB SR 1</i>	D	C	D	C	1,771	842	2,200	2,200	Pass	Pass
	<i>Diverge, SB I-95 to SB SR 1</i>	C	D	C	D	1,155	2,178	4,400	4,400	Pass	Pass
	<i>Diverge, NB I-95 to I-295/SR 141</i>	D	C	D	B	2,976	3,702	4,400	4,400	Pass	Pass
	<i>Merge, NB I-95 from SR 141</i>	D	B	D	D	2,035	1,634	1,900	1,900	Fail	Pass
	<i>Diverge, SB I-95 to SR 141 CD</i>	B	C	C	D	1,782	2,074	4,400	4,400	Pass	Pass
	<i>Merge, SB I-95 from I-295</i>	C	D	C	D	2,921	3,064	4,400	4,400	Pass	Pass
	<i>Merge, SB I-95 from SR 141</i>	C	D	C	D	1,122	1,573	2,200	2,200	Pass	Pass
	<i>Diverge, NB I-95 to SR 1 / SR 7</i>	D	C	D	C	825	1,172	2,100	2,100	Pass	Pass
	<i>Merge, NB I-95 from SR 273</i>	C	C	D	C	3,465	2,684	4,100	4,100	Pass	Pass
	2030 Build	<i>Left Merge, NB I-95 from NB SR 1</i>	E	D	F	D	2,563	1,348	2,200	2,200	Fail
<i>Diverge, SB I-95 to SB SR 1</i>		C	E	C	D	1,760	3,317	4,400	4,400	Pass	Pass
<i>Diverge, NB I-95 to I-295/SR 141</i>		F	D	E	C	3,652	4,587	4,400	4,400	Fail	Fail
<i>Merge, NB I-95 from SR 141</i>		E	C	E	D	2,123	1,705	1,900	1,900	Fail	Pass
<i>Diverge, SB I-95 to SR 141 CD</i>		C	D	C	E	1,969	2,244	4,400	4,400	Pass	Pass
<i>Merge, SB I-95 from I-295</i>		C	E	C	E	3,762	3,944	4,400	4,400	Pass	Pass
<i>Merge, SB I-95 from SR 141</i>		C	E	D	F	1,326	1,859	2,200	2,200	Pass	Fail

* Note: NB I-95 between SR 273 and SR 1 is not a weave segment because the distance between ramps is greater than 2,500 feet

Table 3.
SR 1 AM and PM Peak Hour Levels of Service

Location	Movement	Existing Conditions (2008)		Implementation Year (2013)				Design Year (2030)			
		AM	PM	No Build		Build		No Build		Build	
				AM	PM	AM	PM	AM	PM	AM	PM
I-95 to SR 273	Weave, SB SR 1 at I-95	E	F	F	F	N/A	N/A	F	F	N/A	N/A
	Weave, SB SR 1 between I-95 & Mall	B	D	B	D	A	B	B	E	A	B
	Weave, SB SR 1 between Mall & Road A	B	D	B	D	A	B	B	E	A	C
	Merge, SB SR 1 from Ramp A	N/A	N/A	N/A	N/A	*	*	N/A	N/A	*	F*
	Diverge, NB SR 1 to Ramp B	N/A	N/A	N/A	N/A	*	*	N/A	N/A	*	*
	Merge, NB SR 1 from Road A	D	C	E	C	C	B	F	D	C	B
	Weave, NB SR 1 between Mall & I-95	D	C	E	C	B	B	F	E	B	B
	Weave, NB SR 1 at I-95	B	B	B	B	B	B	C	B	C	B
	Signal, Road A at SR 7	B	B	B	C	B	C	C	C	B	C
	Signal, Road A at SR 1 SB Ramps	B	C	B	C	C	D	B	C	C	D
	Signal, Road A at SR 1 NB Ramps	B	C	B	C	B	C	B	B	B	D
	Signal, Mall Bridge at Ramp A	N/A	N/A	N/A	N/A	A	A	N/A	N/A	A	A
Signal, Mall Bridge at Ring Road	N/A	N/A	N/A	N/A	B	B	N/A	N/A	B	B	

* Ramp junction is a lane drop or lane addition. See Table 4 for capacity checks.

**Table 4.
SR 1 Capacity Checks at Lane Drops and Lane Additions**

Conditions	Movement	Upstream Freeway LOS		Downstream Freeway LOS		Ramp Volume (pc/h)		Ramp Capacity (pc/h)		Pass/Fail	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
2013 Build	<i>Merge, SB SR 1 from Ramp A</i>	B	E	B	D	941	1,628	2,200	2,200	Pass	Pass
	<i>Diverge, NB SR 1 to Ramp B</i>	C	B	C	B	2,360	1,122	4,400	4,400	Pass	Pass
2030 Build	<i>Merge, SB SR 1 from Ramp A</i>	B	E	C	F	1,513	2,684	2,200	2,200	Pass	Fail
	<i>Diverge, NB SR 1 to Ramp B</i>	D	C	C	B	3,416	1,799	4,400	4,400	Pass	Pass

D. Sensitivity Analysis

The analysis results presented in this section of the report indicate that the preferred alternative will provide a substantial improvement in traffic operations over existing and No Build conditions. Motorists will experience less congestion, shorter travel times, and likely safer conditions due to the elimination of several existing weaving movements and the separation of local and through traffic. However, due to the projected traffic growth in the study area over the next twenty years, some movements within the interchange are projected to return to LOS F conditions before the design year of 2030.

The Delaware Department of Transportation (DelDOT) recognizes that the I-95/SR 1 interchange improvements, while significant and necessary, are not the ultimate solution to completely address traffic congestion through this busy and vital corridor. DelDOT has long considered the improvements required to the Delaware Turnpike in the study area as a five-step process:

- Step 1: Construct the Churchmans Crossing interchange at the intersection of SR 7 and SR 58 – *Complete*
- Step 2: Reconstruct the SR 58 (Churchmans Road) Bridge over I-95 - *Complete*
- Step 3: Widen I-95 to five (5) lanes in each direction through Churchmans Marsh – *Under Construction*
- Step 4: Improve the I-95 / SR 1 interchange - *Ongoing project and the subject of this report*
- Step 5: Develop a collector-distributor (C-D) road system along I-95 between SR 273 and I-495 – *Concept Stage of Study*

The interchange improvements comprise Step 4 in a five-step process. Currently, there is no funding available to advance the C-D road project beyond the concept stage. However, DelDOT will continue to evaluate the need for the C-D road system, as well as other transportation demand management (TDM) strategies following completion of the I-95 / SR 1 interchange project. Additionally, the proposed widening of SR 1, south of I-95 (see Related Projects section), would eliminate the projected failing conditions at two locations (Ramp A capacity and merge from Ramp A to SR 1 southbound).

A sensitivity analysis was completed to assess the impacts if traffic grows faster than anticipated. The results presented in the previous section of this report assumed uniform traffic growth between 2008 and 2030. FHWA has expressed concern that traffic may grow at a faster rate than 1.25 percent per year on I-95 before leveling-off as the corridor reaches capacity approaching the design year. Therefore, the project team performed a sensitivity analysis to determine the projected fail years for the movements projected to operate at LOS F in the design year if near-term growth occurred at a faster rate than projected.

The locations projected to reach LOS F conditions the earliest are Ramp A and Ramp B, with each projected to exceed capacity in the year 2023. However, it should be noted that these movements were already projected to experience traffic growth at a rate of 2.5 percent per year in the forecasts prepared for this report.

Mainline I-95 is projected to reach capacity in the year 2025, based on uniform growth of 1.25 percent per year. The project team performed a sensitivity analysis by examining the potential impacts of three higher growth rates along I-95 to determine the projected fail year in each case. If traffic along I-95 increases at a rate of 1.5 percent per year, the corridor would reach capacity in the year 2022. If traffic increases at a rate of 2 percent per year, the corridor would reach capacity in the year 2019. Finally, if traffic increases at a rate of 2.5 percent per year (double the rate of the forecast), the corridor would reach capacity in the year 2017.

It should be noted that the current recession in the United States has led to a decrease in overall vehicle miles traveled nationwide, as well as a slowdown in housing and employment growth, two critical indicators of traffic growth. Therefore, it is possible that near-term growth in the study area may actually occur at a lower rate than forecasted, which could extend the failure years of the preferred alternative.

V. Maintenance of Traffic

The Delaware Department of Transportation (DelDOT) has developed compliance documentation for FHWA's Rule on Work Zone Safety and Mobility (23 CFR 630 Subpart J). As part of the Department's Work Zone Safety and Mobility Procedures and Guidelines, DelDOT requires the development of a Transportation Management Plan (TMP) for all "significant projects," including the I-95 / SR 1 interchange improvements. Included in the TMP is a Maintenance of Traffic Alternatives Analysis (MOTAA). The purpose of the MOTAA is to develop and evaluate the best combination of construction phasing and temporary traffic control strategies to reduce work zone impacts. Although the final maintenance of traffic (MOT) plans have not yet been completed for the I-95 / SR 1 interchange project, a brief discussion of MOT issues related to the interchange improvements is being included in this report, as requested by FHWA during the scoping meeting.

Due to the heavy traffic volumes using the I-95 / SR 1 interchange, all existing movements within the interchange will be maintained at all times during construction, with the exception of temporary off-peak lane closures. The project team will perform traffic analysis to determine a schedule of acceptable lane closure times permitted by the contractor as part of the TMP. DelDOT conducted similar analysis for the I-95 widening project that is currently under construction.

As part of the TMP, the project team will also determine potential alternate routes for traffic during construction, discuss the local and regional efforts for public awareness and public outreach, and address travel demand management scenarios. The project team will also analyze the traffic operations through the interchange during each construction phase to ensure acceptable operations. While the results of the traffic analyses in the TMP may result in changes to the construction phases, a preliminary phasing sequence is provided below.

Pre-Construction

- Required improvements to the Mall Ring Road to be constructed by others prior to the start of interchange construction.

Stage 1

- Construct Ramp A & B foundations south of I-95
- Construct southwest loop ramp improvements
- Construct Ramp R1 bridge
- Construct Ramp R improvements from southbound SR1 to Ramp R1 bridge
- Construct Ramp G1 from Ramp R1 bridge to Road A
- Re-stripe Road A

Stage 2

- Place Mall traffic onto newly constructed Ramp R1, R and G1
- Demolish existing Mall bridge
- Construct northbound SR 7 and Ramp E with a temporary connection to the existing outer ramp to northbound I-95
- Shift traffic onto newly constructed southwest loop ramp
- Construct Ramp C and C1
- Construct Ramp G1 west of southbound SR 7 to Ramp R1
- Construct I-95 northbound shift

Stage 3

- Shift traffic onto newly constructed Ramp C and C1
- Remove existing southeast loop ramp

- Shift traffic onto newly constructed northbound SR 7 and temporary connection to the outer northbound ramp to I-95
- Shift Traffic onto shifted northbound I-95
- Construct remaining Ramp A & B foundations and complete construction of bridges over I-95
- Construct remainder of Ramps A & B in their entirety
- Construct Ramps U and U1
- Construct remainder of Ramp G1
- Construct Ramp B1
- Construct southbound SR 7 wedge/level and overlay

Open reconstructed interchange to traffic

VI. FHWA Policy Points

The following section of the report outlines the eight (8) policy requirements listed in the Federal Registrar as they apply to the I-95/SR 1 interchange. These criteria are typically reviewed by FHWA when approving requests for new or modified access points on the interstate.

1. *The existing interchanges and/or local roads and streets in the corridor can neither provide the necessary access nor be improved to satisfactorily accommodate the design-year traffic demands while at the same time providing the access intended by the proposal.*

The I-95/SR 1 interchange currently operates over capacity, with several ramps and mainline segments operating at LOS F. Traffic operations will continue to deteriorate in the future as traffic growth occurs. The proposed interchange modifications are expected to improve the operations for both regional and local traffic through the interchange. Complete details of analyses results were presented in the Traffic Operations section of this report.

2. *All reasonable alternatives for design options, location and transportation system management type improvements (such as ramp metering, mass transit and HOV facilities) have been assessed and provided for if currently justified, or provisions are included for accommodating such facilities if a future need is identified.*

Transit and management improvements implemented in the I-95 corridor have not affected traffic growth in the area. A No Build alternative and two (2) Build alternatives were analyzed for the I-95/SR 1 interchange. The preferred alternative (Alternative 3 – Option 4) was selected after a thorough review of many factors by DelDOT as well as extensive consultation and coordination with FHWA, as discussed in the Project Description section of this report.

3. *The proposed access point does not have a significant adverse impact on the safety and operation of the Interstate facility based on an analysis of current and future traffic. The operational analysis for existing conditions shall, particularly in urbanized areas, include analysis of sections of Interstate to and including at least the first adjacent existing or proposed interchange on either side. Crossroads and other roads and streets shall be included in the analysis to the extent necessary to assure their ability to collect and distribute traffic to and from the interchange with new or revised access points.*

The I-95/SR 1 interchange ramps have experienced 88 crashes in a 3-year period, with a large number of rear-end crashes. Since these crashes are primarily caused by congestion and lane changes due to merges, diverges, and weaves, the operational and capacity improvements in the preferred alternative would be expected to provide an improvement in the safety of the roadway.

Operational analyses were performed for the I-95/SR 1 interchange using HCS for existing conditions, the implementation year (2013), and the design year (2030), as presented in the Traffic Operations section of this report. The adjacent interchanges at SR 273 and SR 141/I-295 were also included in the analyses. Additionally, operations along the SR 1 were also analyzed.

4. *The proposed access connects to a public road only and will provide for all traffic movements. Less than "full interchanges" for special purposes access for transit vehicles, for HOV's, or into park and ride lots may be considered on a case-by-case basis. The proposed access will be designed to meet or exceed current standards for Federal-aid projects on the Interstate system.*

The I-95/SR 1 interchange is currently a "full interchange" that provides for all traffic movements (The southbound I-95 to northbound SR 7 movement is accommodated at the adjacent interchange by a ramp from southbound I-95 to Churchmans Road). All movements that currently have access to the interstate will continue to have access after the proposed improvements, and the proposed improvements do not create any new connections. The preferred alternative simply separates local and through traffic and provides more efficient ramps for existing movements.

5. *The proposal considers and is consistent with local and regional land use and transportation plans. Prior to final approval, all requests for new or revised access must be consistent with the metropolitan and/or statewide transportation plan, as appropriate, the applicable provisions of 23 CRF part 450 and the transportation conformity requirements of 40 CFR parts 51 and 93.*

Transportation improvements in the project area are guided by a number of state, regional, and local plans and strategies. These plans were reviewed to determine whether modifications to the I-95/SR 1 interchange are consistent with the goals and objectives of these plans. The preferred alternative was found to be consistent with the following State, regional, and local plans:

- DelDOT's Capital Transportation Program FY 2008 to FY 2013
- WILMAPCO's Regional Transportation Plan 2030
- WILMAPCO's Transportation Improvement Program 2009-2012
- New Castle County Comprehensive Development Plan

6. *In areas where the potential exists for future multiple interchange additions, all requests for new or revised access are supported by a comprehensive Interstate network study with recommendations that address all proposed and desired access within the context of the long-term plan.*

The I-95/SR 1 interchange improvements are part of the Delaware Turnpike Improvement program. The interchange modifications were prepared in conjunction with several other improvement projects along I-95, including the mainline widening of I-95 from four (4) to five (5) lanes between SR 1 and SR 141, which is currently under construction. No additional access points or modifications to other existing access points are anticipated along the Delaware Turnpike at this time.

7. *The request for a new or revised access generated by new or expanded development demonstrates appropriate coordination between the development and related or otherwise required transportation system improvements.*

The request for revised access at the I-95/SR 1 interchange is based on existing traffic volumes, and therefore is not caused by new or expanded development. However, the modifications to the existing interchange are being closely coordinated with the owners/operators of the Christiana Mall, located just to the southeast of the interchange.

8. *The request for new or revised access contains information relative to the planning requirements and the status of the environmental processing of the proposal.*

The original Environmental Assessment (EA) submittal for the I-95 / SR 1 interchange was made and approved in May 2005. The EA included both the I-95 widening and SR1/I-95 interchange projects. Because the preferred alternative has been refined since the 2005 submittal, the environmental documentation is currently being updated. DelDOT will prepare a letter for FHWA justifying the changes that have occurred since the original EA submittal in 2005, including revised drawings. Additionally, agency letters will be updated and re-submitted, and air quality will be addressed. DelDOT understands that the updated environmental documentation must be approved before the IMR can be approved, and is therefore working quickly to provide the updated environmental documentation to FHWA.

VII. Summary

The I-95/SR 1 interchange is being modified to accommodate the large traffic volumes in New Castle County, Delaware that use the interchange and have saturated the network, resulting in daily congestion during the AM and PM peak hours. The modified design will provide benefits to motorists by improving the level of service, reducing queues, reducing travel times, and improving the overall flow of vehicles through the network by separating the through and local traffic within the interchange. Safety should also be improved, as many of the crashes that currently occur at the interchange are the result of congested conditions and conflicts at the existing merge, diverge, and weave areas. The modified interchange design will accommodate the existing function of the interchange, providing much-needed direct ramps for the freeway-to-freeway movements connecting northbound SR 1 to northbound I-95 and southbound I-95 to southbound SR 1.

The revisions require the modification of three (3) access points on Interstate 95. The failing diverge ramp to the southbound C-D road is replaced by a two-lane flyover ramp that connects southbound I-95 to southbound SR 1. In the northbound direction, the heavily-congested single lane ramp from northbound SR 1 to northbound I-95 is replaced with a two-lane ramp that splits to provide access on both the left and right side of I-95, properly aligning vehicles in their ultimate destination lanes to minimize weaving activity on the new 5-lane segment of I-95 through Churchmans Marsh. Additionally, two (2) loop ramps are removed to eliminate three (3) weaving conditions. The poorly-operating loop ramp in the northwest quadrant of the interchange is removed, eliminating a weave along the southbound I-95 C-D road and a weave along southbound SR 7. The loop ramp in the southeast quadrant of the interchange is also removed, which eliminates a weave along mainline northbound I-95. Because of these anticipated benefits to the interstate system and to the traveling public in Delaware, the Delaware Department of Transportation respectfully requests that FHWA grant approval to modify interstate access at the I-95 / SR 1 interchange in order to construct this important project.

Appendix A



Scoping Meeting Minutes

MEETING MINUTES

July 11, 2008

Attendees: Stephanie Pratt – FHWA
Esther Strawder-Payton – FHWA
Pat Kennedy – FHWA
Nick Blundy – FHWA
Darren O’Neill – DelDOT
Mark Luszcz – DelDOT
Nancy Bergeron – RK&K
Barb Hoage – RK&K
Matt Snare – RK&K
Bob Shaffer – RK&K

Reference: **SR 1 Mall Interchange
Interstate Justification Report – Scoping Meeting**

The purpose of the meeting was to discuss revisions to the Interstate Justification Report (IJR) documentation for the I-95 / SR 1 Interchange project, previously submitted in Draft form in July 2005, to identify the changes to the interchange that had occurred since the previous submittal, and to gain direction on design elements for the project.

General Overview:

- The purpose of the project is to separate the high speed through traffic from local traffic by replacing the existing ramps from northbound SR 1 to northbound I-95 and southbound I-95 to southbound SR 1 with high-speed (60 mph) directional ramps that bypass local ramps to the Christiana Mall and SR 7.

Changes to Design:

- The new design includes a split ramp from NB SR 1 to NB I-95. Based on our recent Origin & Destination study, 76% of traffic on the NB ramp is destined to the Wilmington area while the remaining 24% of traffic is destined to SR 141 and I-295. The new split ramp would provide a direct ramp connection to the inside lanes of I-95; where a large portion of the traffic wants to go, and would substantially reduce the current merge conditions for northbound travelers. Additionally, the current design would shift NB I-95 to the south to create space in the median to allow a single lane NB ramp to enter on the left as an additional lane (becoming the 5th lane). The traffic destined for SR 141 and I-295 would remain separated from NB I-95 to a point just east of the existing Churchmans Road Bridge entering on the right as a merge condition. This would eliminate the majority of the traffic destined for Wilmington having to weave across several lanes of NB I-95. It was noted that the local Mall traffic would still be required to weave across these lanes as they do not have direct access to the high-speed ramp. FHWA voiced concern that merging the “Local” ramp onto NB I-95 prior to the bridge would create a confusing and unsafe condition. FHWA agreed that keeping the “local” ramp separated from NB I-95 and merging the ramp past the Churchmans Road Bridge would create a safer and operationally better condition.



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JULY 11, 2008

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- The existing NB I-95 to NB SR 7 loop ramp has been eliminated and replaced with a semi-direct fly-over ramp. This revision is an operational improvement that eliminates a weave on NB I-95. (see attachment)
- The lane drop configuration at the southern terminus of the project on SB SR7 has been revised to eliminate lane drops occurring simultaneously in the same location.

Construction Schedule:

- The 5th lane project is currently on schedule to be completed in Late Fall 2008.
- The SR1/I-95 Interchange project is scheduled to start construction in the late 2010, and has an anticipated construction schedule of approximately 3-4 years. DelDOT is planning to use alternative bidding procedures to maximize a competitive bidding environment while trying to minimize construction time. Options could include an A + B bidding process similar to what was used on the adjacent I-95 5th Lane Project, as well as incentive/disincentives based on user costs, penalties, lanes rentals etc. Some or all of these are ways to accelerate the construction schedule.
- As a first order of work the Mall Ring Road needs to be relocated. The Christiana Mall is currently under renovation, with construction of the “promenade” section scheduled to be completed by the Fall of 2009 and a new anchor store (Nordstrom’s) scheduled to open in 2011. The Mall has expressed a desire to have the Ring Road construction completed for a Fall of 2009 opening. DelDOT is currently discussing with FHWA and the Mall owners and operators the possibility of having the final design and construction of the Ring Road completed by the Mall owner and operator (General Growth Properties).

IJR Submission:

- The original IJR (formerly IAPA) was submittal in Draft form in July 2005. FHWA reviewed and provided comment at that time. At that time, the package was for the 5th lane project and the SR1/I-95 Interchange combined. Subsequently the Department decided to move forward with the 5th lane project. The SR1/I-95 Interchange was moved out until the 5th lane was completed. . Therefore, DelDOT did not seek formal approval of the IJR at that time.
- It was agreed that the July 2005 Draft submission would be updated and re-submitted for review and comment.
- Traffic counts were recently conducted along SR 1, and at the I-95/SR 1 interchange. Using this data, a balanced network of year 2008 traffic volume has been developed and will be used for the updated traffic analysis of existing conditions. It was noted that the 2008 traffic counts show little to no growth compared to the year 2000 counts. It was noted that this is likely the result of several factors:
 - 1) The I-95 corridor is saturated and cannot accommodate additional traffic
 - 2) The presence of a current work zone further limits capacity



MEETING MINUTES

JULY 11, 2008

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3) High gasoline prices and the struggling economy have caused reduced travel along the east coast's main street, I-95. FHWA requested that the project team discuss these items in the new IJR

- FHWA agreed the traffic forecasting model for design year 2030 was acceptable.
- FHWA requested the updated IJR include current crash data. RK&K has already obtained the most recent 3 year data on crash analysis.
- Similar to the previous submittal, the updated IJR will include an analysis of the interchanges adjacent to the study interchange (namely, the I-95/SR 273 interchange and the I-95/SR 141/I-295 interchange). It was noted that due to the current construction through the SR 141 interchange, new counts could not be taken at this location. FHWA agreed that the traffic data from the previous submittal at the adjacent interchanges could be used in the new submittal after applying appropriate growth rates. The design year for the new IJR submittal will be 2030.
- FHWA recommended that Highway Capacity Software (HCS) be used to analyze all freeway segments, merges, diverges, and weaves along I-95 and SR 1 within the study area.
- The updated IJR will also include a Synchro analysis of the three (3) signalized intersections within the interchange at the junctions of local ramps with the mall. It was noted that DelDOT would maintain all traffic signals, including the ones proposed on the mall ring road.
- It was noted that a CORSIM model has been developed for the network of the study area. The model will be updated with the 2030 traffic volumes and will be used in assisting with design decisions. It was agreed that the CORSIM model would not be included as part of the IJR due to concerns that the model has not been fully calibrated. FHWA indicated that they might be interested in viewing the model, even though it will not be formally submitted as part of the IJR.
- The design of the interchange is in the preliminary plan stage and maintenance of traffic (MOT) has not been final designed at this time. The final plans will include a Transportation Management Plan (TMP) in accordance with FHWA guidelines that will thoroughly discuss proposed construction phases, a schedule of acceptable lane closure times, and potential alternate routes for traffic during construction. The report will also discuss the local and regional efforts for public awareness, public outreach, alternative travel options and travel demand scenarios. Much of this was established in the 2000 I-95 Reconstruction project and will be tailored to this project. It was agreed that a brief discussion of MOT will be included in the updated IJR. FHWA requested that Mother's Day be included on the list of holidays in which lanes closures would not be permitted.
- DelDOT is seeking FHWA approval of the IJR by the end of the year. This would allow the Ring Road to be constructed by the Fall of 2009 and would coincide with Mall renovations. FHWA noted that they will require 30 days to review the updated IJR. (FHWA requested that the updated IJR not be submitted during the first 2 weeks of September) It was agreed that the updated IJR will be submitted to FHWA by the



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end of September or early October. This will allow time for FHWA to review the updated submission and for DelDOT to address any subsequent comments.

- Design Exceptions are to be included in the updated submission.

Environmental Documentation:

- The original Environmental Assessment (EA) submittal was made and approved in May 2005. The EA included both the I-95 5th lane and SR1/I-95 Interchange projects.
- It was noted that the environmental documentation would need to be updated and approved prior to approval of the updated IJR. The processes can happen concurrently.
- FHWA requested DelDOT prepare a letter justifying the changes that have occurred since the original EA.
- Drawings will need to be revised to show the extended area.
- Agency letters will need to be updated and re-submitted.
- FHWA noted that Air Quality will need to be addressed. It was suggested that this be addressed similar to the US 301 document.

Design Elements:

- **Barriers:** FHWA requested that Crash Level 4 be used for all barriers.
- **Shoulder Width:** FHWA requested that normal shoulder widths be used throughout the project and that the shoulders should not be widened to increase sight distance as the wider shoulders tend to get used as travel lanes. FHWA recommended that the design speed be re-evaluated and lowered where appropriate. DelDOT Traffic stated a preference to use Warning Signs rather than reducing the speed limit for short stretches of roadway/ramp.
- **Removal of Existing Striping:** FHWA noted that they driven through the adjacent construction zone and noticed that the existing striping that had been removed remained visible. The Department noted that they had tried various techniques for removing existing striping, but none have proven to be totally effective on heavily-traveled roadway, such as the Turnpike. The Department agreed to work closely with FHWA to find an appropriate solution for future projects.

Action Items:

- Revise the forecasting model with the new traffic data.
- Submit updated environmental documentation.
- Update IJR and submit for review and comment.
- Provide FHWA with copies of the DelDOT/Mall agreements.
- FHWA to forward the new recycled materials requirements to DelDOT and RK&K.



MEETING MINUTES

JULY 11, 2008

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These meeting minutes are RK&K's interpretation of the meeting and were prepared by Matt Snare and Bob Shaffer. If anyone feels that any part of the meeting was misinterpreted, please respond in writing within seven (7) business days, otherwise the minutes will remain as a record of the meeting.

RLS/mcs, rls

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Rummel, Klepper & Kahl, LLP
Consulting Engineers

Appendix B

Crash Data

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	6.62 - 10.56	Eastbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	6.62 - 10.56	Eastbound

Summary	
	# of Accs.
Total Accidents	86
Fatal Accidents	0
Total Alcohol-Related Accidents	3
Total Non Alcohol-Related Accidents	83
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	66
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	1	1.16
Reportable	65	75.58
Personal Injury	20	23.26
Fatality	0	0.00
Total	86	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	10	11.76
Rear-end	43	50.59
Head-on	1	1.16
Rear-to-rear	1	1.16
Angle	5	5.88
Sideswipe - same direction	24	28.24
Sideswipe - opposite direction	0	0.00
Unknown	1	1.16
Total	85	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	2	1	0
Non-Alcohol Related	1	63	19	0
Total	1	65	20	0

Total	3
	83
	86

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	2	8	0	10
Rear-end	0	37	6	0	43
Head-on	0	0	1	0	1
Rear-to-rear	0	1	0	0	1
Angle	0	4	1	0	5
Sideswipe - same direction	1	19	4	0	24
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	1	0	0	1
Total	1	64	20	0	85

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	6.62 - 10.56	Eastbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	11	12.79
Monday	13	15.12
Tuesday	15	17.44
Wednesday	19	22.09
Thursday	7	8.14
Friday	15	17.44
Saturday	6	6.98
Total	86	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	3	3.49
01:00 - 01:59	0	0.00
02:00 - 02:59	1	1.16
03:00 - 03:59	0	0.00
04:00 - 04:59	1	1.16
05:00 - 05:59	1	1.16
06:00 - 06:59	3	3.49
07:00 - 07:59	14	16.28
08:00 - 08:59	9	10.47
09:00 - 09:59	3	3.49
10:00 - 10:59	3	3.49
11:00 - 11:59	5	5.81
Total	43	50.00

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	4	4.65
13:00 - 13:59	2	2.33
14:00 - 14:59	7	8.14
15:00 - 15:59	4	4.65
16:00 - 16:59	8	9.30
17:00 - 17:59	7	8.14
18:00 - 18:59	2	2.33
19:00 - 19:59	2	2.33
20:00 - 20:59	0	0.00
21:00 - 21:59	0	0.00
22:00 - 22:59	3	3.49
23:00 - 23:59	3	3.49
Total	42	48.84
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	6.62 - 10.56	Eastbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	66	77.85
Wet	18	21.18
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	1	1.18
Total	85	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	65	76.47
Dawn	2	2.35
Dusk	1	1.18
Dark - lighted roadway	4	4.71
Dark - roadway not lighted	13	15.29
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	85	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	60	69.77
Cloudy	11	12.79
Fog, smog, smoke	0	0.00
Rain	11	12.79
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	2	2.33
Total	84	97.67

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	6.62 - 10.56	Eastbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	6.62 - 10.56	Eastbound

Summary	
	# of Accs.
Total Accidents	107
Fatal Accidents	2
Total Alcohol-Related Accidents	8
Total Non Alcohol-Related Accidents	99
Total Fatalities	2
Total Pedestrian Fatalities	2
Total Pedestrian Injuries	0
Total Pedestrian Accidents	2
Total Property Damage Accidents	77
Total Motorcycle Accidents	3
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	77	71.96
Personal Injury	28	26.17
Fatality	2	1.87
Total	107	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision - between two vehicles in transport	13	12.15
Rear-end	60	56.07
Head-on	2	1.87
Rear-to-rear	2	1.87
Angle	7	6.54
Sideswipe - same direction	22	20.56
Sideswipe - opposite direction	1	0.93
Unknown	0	0.00
Total	107	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	3	3	2
Non-Alcohol Related	0	74	25	0
Total	0	77	28	2

Total
8
99
107

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision - between two vehicles in transport	0	5	6	2	13
Rear-end	0	52	8	0	60
Head-on	0	1	1	0	2
Rear-to-rear	0	1	1	0	2
Angle	0	3	4	0	7
Sideswipe - same direction	0	14	8	0	22
Sideswipe - opposite direction	0	1	0	0	1
Unknown	0	0	0	0	0
Total	0	77	28	2	107

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	6.62 - 10.56	Eastbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	16	14.95
Monday	17	15.89
Tuesday	11	10.28
Wednesday	16	14.95
Thursday	9	8.41
Friday	23	21.50
Saturday	15	14.02
Total	107	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	2	1.87
01:00 - 01:59	1	0.93
02:00 - 02:59	3	2.80
03:00 - 03:59	2	1.87
04:00 - 04:59	1	0.93
05:00 - 05:59	1	0.93
06:00 - 06:59	0	0.00
07:00 - 07:59	4	3.74
08:00 - 08:59	6	5.61
09:00 - 09:59	5	4.67
10:00 - 10:59	2	1.87
11:00 - 11:59	7	6.54
Total	34	31.78

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	6	5.61
13:00 - 13:59	3	2.80
14:00 - 14:59	4	3.74
15:00 - 15:59	6	5.61
16:00 - 16:59	11	10.28
17:00 - 17:59	10	9.35
18:00 - 18:59	8	7.48
19:00 - 19:59	1	0.93
20:00 - 20:59	8	7.48
21:00 - 21:59	4	3.74
22:00 - 22:59	2	1.87
23:00 - 23:59	3	2.80
Total	66	61.68
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	6.62 - 10.56	Eastbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	79	73.83
Wet	28	26.17
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	107	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	88	83.55
Dawn	0	0.00
Dusk	4	3.74
Dark - lighted roadway	15	14.02
Dark - roadway not lighted	20	18.69
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	107	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	67	62.62
Cloudy	19	17.76
Fog, smog, smoke	0	0.00
Rain	21	19.63
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	107	100.00

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	2	1.87
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	1.87

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	0.00 - 2.09	Northbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	0.00 - 2.09	Northbound

Summary	
	# of Accs.
Total Accidents	28
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	28
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	25
Total Motorcycle Accidents	1
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	25	89.29
Personal Injury	3	10.71
Fatality	0	0.00
Total	28	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision - between two vehicles in transport	5	17.86
Rear-end	17	60.71
Head-on	0	0.00
Rear-to-rear	1	3.57
Angle	1	3.57
Sideswipe - same direction	4	14.29
Sideswipe - opposite direction	0	0.00
Unknown	0	0.00
Total	28	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	25	3	0
Total	0	25	3	0

Total
0
28
28

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision - between two vehicles in transport	0	5	0	0	5
Rear-end	0	15	2	0	17
Head-on	0	0	0	0	0
Rear-to-rear	0	1	0	0	1
Angle	0	0	1	0	1
Sideswipe - same direction	0	4	0	0	4
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	25	3	0	28

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	0.00 - 2.09	Northbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	2	7.14
Monday	6	21.43
Tuesday	3	10.71
Wednesday	6	21.43
Thursday	0	0.00
Friday	8	28.57
Saturday	3	10.71
Total	28	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	0	0.00
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	1	3.57
06:00 - 06:59	1	3.57
07:00 - 07:59	4	14.29
08:00 - 08:59	4	14.29
09:00 - 09:59	1	3.57
10:00 - 10:59	0	0.00
11:00 - 11:59	2	7.14
Total	13	46.43

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	3	10.71
13:00 - 13:59	1	3.57
14:00 - 14:59	2	7.14
15:00 - 15:59	4	14.29
16:00 - 16:59	3	10.71
17:00 - 17:59	0	0.00
18:00 - 18:59	1	3.57
19:00 - 19:59	0	0.00
20:00 - 20:59	1	3.57
21:00 - 21:59	0	0.00
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	15	53.57
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	0.00 - 2.09	Northbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	25	89.29
Wet	3	10.71
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	28	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	26	92.86
Dawn	1	3.57
Dusk	0	0.00
Dark - lighted roadway	1	3.57
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	28	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	21	75.00
Cloudy	4	14.29
Fog, smog, smoke	0	0.00
Rain	3	10.71
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	28	100.00

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	0.00 - 2.09	Northbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	0.00 - 2.09	Northbound

Summary	
	# of Accs.
Total Accidents	17
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	17
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	9
Total Motorcycle Accidents	1
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	9	52.94
Personal Injury	8	47.06
Fatality	0	0.00
Total	17	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	3	17.65
Rear-end	8	47.06
Head-on	0	0.00
Rear-to-rear	0	0.00
Angle	2	11.76
Sideswipe - same direction	4	23.53
Sideswipe - opposite direction	0	0.00
Unknown	0	0.00
Total	17	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	9	8	0
Total	0	9	8	0

Total
0
17
17

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	2	1	0	3
Rear-end	0	3	5	0	8
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	1	1	0	2
Sideswipe - same direction	0	3	1	0	4
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	9	8	0	17

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	0.00 - 2.09	Northbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	5	29.41
Monday	2	11.76
Tuesday	2	11.76
Wednesday	3	17.65
Thursday	2	11.76
Friday	1	5.88
Saturday	2	11.76
Total	17	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	1	5.88
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	1	5.88
07:00 - 07:59	0	0.00
08:00 - 08:59	0	0.00
09:00 - 09:59	1	5.88
10:00 - 10:59	0	0.00
11:00 - 11:59	1	5.88
Total	4	23.53

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	2	11.76
14:00 - 14:59	0	0.00
15:00 - 15:59	3	17.65
16:00 - 16:59	1	5.88
17:00 - 17:59	3	17.65
18:00 - 18:59	1	5.88
19:00 - 19:59	0	0.00
20:00 - 20:59	1	5.88
21:00 - 21:59	0	0.00
22:00 - 22:59	1	5.88
23:00 - 23:59	0	0.00
Total	12	70.59
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	0.00 - 2.09	Northbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	13	76.47
Wet	3	17.65
Snow	1	5.88
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	17	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	13	76.47
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	3	17.65
Dark - roadway not lighted	1	5.88
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	17	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	13	76.47
Cloudy	1	5.88
Fog, smog, smoke	0	0.00
Rain	2	11.76
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	1	5.88
Other	0	0.00
Unknown	0	0.00
Total	17	100.00

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	6.62 - 10.56	Eastbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	6.62 - 10.56	Eastbound

Summary	
	# of Accs.
Total Accidents	150
Fatal Accidents	0
Total Alcohol-Related Accidents	3
Total Non Alcohol-Related Accidents	130
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	109
Total Motorcycle Accidents	2
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	109	72.67
Personal Injury	41	27.33
Fatality	0	0.00
Total	150	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	19	12.67
Rear-end	76	50.67
Head-on	2	1.33
Rear-to-rear	1	0.67
Angle	9	6.00
Sideswipe - same direction	42	28.00
Sideswipe - opposite direction	0	0.00
Unknown	1	0.67
Total	150	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	2	1	0
Non-Alcohol Related	0	96	34	0
Total	0	98	35	0

Total
3
130
133

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	11	8	0	19
Rear-end	0	55	21	0	76
Head-on	0	1	1	0	2
Rear-to-rear	0	1	0	0	1
Angle	0	6	3	0	9
Sideswipe - same direction	0	34	8	0	42
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	1	0	0	1
Total	0	109	41	0	150

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2006	New Castle	56	6.62 - 10.56	Eastbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	14	10.53
Monday	18	13.53
Tuesday	24	18.05
Wednesday	11	8.27
Thursday	25	18.80
Friday	24	18.05
Saturday	17	12.78
Total	133	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	0	0.00
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	0	0.00
07:00 - 07:59	0	0.00
08:00 - 08:59	0	0.00
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	0	0.00
Total	0	0.00

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	0	0.00
14:00 - 14:59	0	0.00
15:00 - 15:59	0	0.00
16:00 - 16:59	0	0.00
17:00 - 17:59	0	0.00
18:00 - 18:59	0	0.00
19:00 - 19:59	0	0.00
20:00 - 20:59	0	0.00
21:00 - 21:59	0	0.00
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	0	0.00
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2006	New Castle	56	6.62 - 10.56	Eastbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	118	78.67
Wet	28	18.67
Snow	1	0.67
Ice	3	2.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	150	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	121	80.67
Dawn	1	0.67
Dusk	0	0.00
Dark - lighted roadway	15	10.00
Dark - roadway not lighted	13	8.67
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	150	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	104	69.33
Cloudy	25	16.67
Fog, smog, smoke	0	0.00
Rain	14	9.33
Sleet, hail (freezing rain or drizzle)	2	1.33
Snow	1	0.67
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	146	97.33

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	3	2.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	1	0.67
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	4	2.67

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	6.62 - 10.56	Eastbound

01/01/2008 - 04/30/2008 ✓

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	6.62 - 10.56	Eastbound

Summary	
	# of Accs.
Total Accidents	60
Fatal Accidents	0
Total Alcohol-Related Accidents	1
Total Non Alcohol-Related Accidents	59
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	50
Total Motorcycle Accidents	1
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	50	83.33
Personal Injury	10	16.67
Fatality	0	0.00
Total	60	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	7	11.67
Rear-end	37	61.67
Head-on	1	1.67
Rear-to-rear	0	0.00
Angle	3	5.00
Sideswipe - same direction	12	20.00
Sideswipe - opposite direction	0	0.00
Unknown	0	0.00
Total	60	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	1	0
Non-Alcohol Related	0	50	9	0
Total	0	50	10	0

Total
1
59
60

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	5	2	0	7
Rear-end	0	31	6	0	37
Head-on	0	1	0	0	1
Rear-to-rear	0	0	0	0	0
Angle	0	2	1	0	3
Sideswipe - same direction	0	11	1	0	12
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	50	10	0	60

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	6.62 - 10.56	Eastbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	7	11.67
Monday	9	15.00
Tuesday	6	10.00
Wednesday	5	8.33
Thursday	10	16.67
Friday	8	13.33
Saturday	15	25.00
Total	60	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	0	0.00
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	0	0.00
07:00 - 07:59	0	0.00
08:00 - 08:59	0	0.00
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	0	0.00
Total	0	0.00

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	0	0.00
14:00 - 14:59	0	0.00
15:00 - 15:59	0	0.00
16:00 - 16:59	0	0.00
17:00 - 17:59	0	0.00
18:00 - 18:59	0	0.00
19:00 - 19:59	0	0.00
20:00 - 20:59	0	0.00
21:00 - 21:59	1	1.67
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	1	1.67
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	6.62 - 10.56	Eastbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	42	70.00
Wet	18	30.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	60	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	42	70.00
Dawn	1	1.67
Dusk	4	6.67
Dark - lighted roadway	3	5.00
Dark - roadway not lighted	10	16.67
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	60	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	35	58.33
Cloudy	13	21.67
Fog, smog, smoke	0	0.00
Rain	10	16.67
Sleet, hail (freezing rain or drizzle)	1	1.67
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	59	98.33

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	0.00 - 2.09	Northbound

Site 2

01/01/2007 - 12/31/2007

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	0.00 - 2.09	Northbound

Summary	
	# of Accs.
Total Accidents	31
Fatal Accidents	0
Total Alcohol-Related Accidents	3
Total Non Alcohol-Related Accidents	27
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	27
Total Motorcycle Accidents	1
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	27	87.10
Personal Injury	4	12.90
Fatality	0	0.00
Total	31	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	7	22.58
Rear-end	14	45.16
Head-on	0	0.00
Rear-to-rear	0	0.00
Angle	2	6.45
Sideswipe - same direction	8	25.81
Sideswipe - opposite direction	0	0.00
Unknown	0	0.00
Total	31	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	2	1	0
Non-Alcohol Related	0	24	3	0
Total	0	26	4	0

Total
3
27
30

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	7	0	0	7
Rear-end	0	12	2	0	14
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	2	0	0	2
Sideswipe - same direction	0	6	2	0	8
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	27	4	0	31

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	0.00 - 2.09	Northbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	3	10.00
Monday	4	13.33
Tuesday	3	10.00
Wednesday	4	13.33
Thursday	4	13.33
Friday	4	13.33
Saturday	8	26.67
Total	30	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	0	0.00
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	0	0.00
07:00 - 07:59	0	0.00
08:00 - 08:59	0	0.00
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	0	0.00
Total	0	0.00

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	0	0.00
14:00 - 14:59	0	0.00
15:00 - 15:59	0	0.00
16:00 - 16:59	0	0.00
17:00 - 17:59	0	0.00
18:00 - 18:59	0	0.00
19:00 - 19:59	0	0.00
20:00 - 20:59	0	0.00
21:00 - 21:59	0	0.00
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	0	0.00
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	0.00 - 2.09	Northbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	27	87.10
Wet	4	12.90
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	31	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	23	74.19
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	4	12.90
Dark - roadway not lighted	4	12.90
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	31	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	22	70.97
Cloudy	5	16.13
Fog, smog, smoke	1	3.23
Rain	2	6.45
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	30	96.77

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	1	3.23
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	3.23

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	0.00 - 2.09	Northbound

Site 2

01/01/2008 - 04/30/2008

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	0.00 - 2.09	Northbound

Summary	
	# of Accs.
Total Accidents	9
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	9
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	8
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	8	88.89
Personal Injury	1	11.11
Fatality	0	0.00
Total	9	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision - between two vehicles in transport	3	33.33
Rear-end	4	44.44
Head-on	0	0.00
Rear-to-rear	0	0.00
Angle	0	0.00
Sideswipe - same direction	2	22.22
Sideswipe - opposite direction	0	0.00
Unknown	0	0.00
Total	9	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	8	1	0
Total	0	8	1	0

Total
0
9
9

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision - between two vehicles in transport	0	2	1	0	3
Rear-end	0	4	0	0	4
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	2	0	0	2
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	8	1	0	9

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	0.00 - 2.09	Northbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	0	0.00
Monday	4	44.44
Tuesday	1	11.11
Wednesday	2	22.22
Thursday	1	11.11
Friday	0	0.00
Saturday	1	11.11
Total	9	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	0	0.00
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	0	0.00
07:00 - 07:59	0	0.00
08:00 - 08:59	0	0.00
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	0	0.00
Total	0	0.00

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	0	0.00
14:00 - 14:59	0	0.00
15:00 - 15:59	0	0.00
16:00 - 16:59	0	0.00
17:00 - 17:59	0	0.00
18:00 - 18:59	0	0.00
19:00 - 19:59	0	0.00
20:00 - 20:59	0	0.00
21:00 - 21:59	0	0.00
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	0	0.00
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	0.00 - 2.09	Northbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	8	88.89
Wet	1	11.11
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	9	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	5	55.56
Dawn	1	11.11
Dusk	0	0.00
Dark - lighted roadway	1	11.11
Dark - roadway not lighted	2	22.22
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	9	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	6	66.67
Cloudy	3	33.33
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	9	100.00

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	55	5.75 - 10.11	Westbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	55	5.75 - 10.11	Westbound

Summary	
	# of Accs.
Total Accidents	113
Fatal Accidents	1
Total Alcohol-Related Accidents	10
Total Non Alcohol-Related Accidents	103
Total Fatalities	1
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	85
Total Motorcycle Accidents	1
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	85	75.22
Personal Injury	27	23.89
Fatality	1	0.88
Total	113	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	15	13.39
Rear-end	60	53.57
Head-on	0	0.00
Rear-to-rear	0	0.00
Angle	8	7.14
Sideswipe - same direction	29	25.89
Sideswipe - opposite direction	0	0.00
Unknown	0	0.00
Total	112	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	7	2	1
Non-Alcohol Related	0	78	25	0
Total	0	85	27	1

Total
10
103
113

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	11	3	1	15
Rear-end	0	46	14	0	60
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	4	4	0	8
Sideswipe - same direction	0	23	6	0	29
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	84	27	1	112

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	5.75 - 10.11	Westbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	17	15.04
Monday	17	15.04
Tuesday	10	8.85
Wednesday	11	9.73
Thursday	14	12.39
Friday	26	23.01
Saturday	18	15.93
Total	113	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	4	3.54
01:00 - 01:59	1	0.88
02:00 - 02:59	2	1.77
03:00 - 03:59	0	0.00
04:00 - 04:59	1	0.88
05:00 - 05:59	1	0.88
06:00 - 06:59	2	1.77
07:00 - 07:59	2	1.77
08:00 - 08:59	5	4.42
09:00 - 09:59	3	2.65
10:00 - 10:59	1	0.88
11:00 - 11:59	6	5.31
Total	28	24.78

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	6	5.31
13:00 - 13:59	4	3.54
14:00 - 14:59	9	7.96
15:00 - 15:59	13	11.50
16:00 - 16:59	14	12.38
17:00 - 17:59	9	7.96
18:00 - 18:59	12	10.62
19:00 - 19:59	4	3.54
20:00 - 20:59	4	3.54
21:00 - 21:59	3	2.65
22:00 - 22:59	0	0.00
23:00 - 23:59	7	6.19
Total	85	75.22
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	5.75 - 10.11	Westbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	88	78.57
Wet	24	21.43
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	112	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	72	64.29
Dawn	0	0.00
Dusk	5	4.46
Dark - lighted roadway	11	9.82
Dark - roadway not lighted	24	21.43
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	112	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	77	68.14
Cloudy	17	15.04
Fog, smog, smoke	2	1.77
Rain	14	12.39
Sleet, hail (freezing rain or drizzle)	1	0.88
Snow	1	0.88
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	112	99.12

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	1	0.88
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	0.88

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2006	New Castle	56	5.75 - 10.11	Westbound

Site 1

01/01/2006 - 12/31/2006

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2006	New Castle	56	5.75 - 10.11	Westbound

Summary	
	# of Accs.
Total Accidents	137
Fatal Accidents	1
Total Alcohol-Related Accidents	9
Total Non Alcohol-Related Accidents	128
Total Fatalities	1
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	100
Total Motorcycle Accidents	1
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	100	72.99
Personal Injury	36	26.28
Fatality	1	0.73
Total	137	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision - between two vehicles in transport	14	10.22
Rear-end	94	68.61
Head-on	0	0.00
Rear-to-rear	3	2.19
Angle	6	4.38
Sideswipe - same direction	20	14.60
Sideswipe - opposite direction	0	0.00
Unknown	0	0.00
Total	137	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	5	4	0
Non-Alcohol Related	0	95	32	1
Total	0	100	36	1

Total
9
128
137

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision - between two vehicles in transport	0	11	3	0	14
Rear-end	0	65	28	1	94
Head-on	0	0	0	0	0
Rear-to-rear	0	2	1	0	3
Angle	0	5	1	0	6
Sideswipe - same direction	0	17	3	0	20
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	100	36	1	137

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	5.75 - 10.11	Westbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	16	11.68
Monday	21	15.33
Tuesday	18	13.14
Wednesday	22	16.06
Thursday	11	8.03
Friday	33	24.09
Saturday	16	11.68
Total	137	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	3	2.19
01:00 - 01:59	4	2.92
02:00 - 02:59	2	1.46
03:00 - 03:59	2	1.46
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	3	2.19
07:00 - 07:59	2	1.46
08:00 - 08:59	8	5.84
09:00 - 09:59	1	0.73
10:00 - 10:59	3	2.19
11:00 - 11:59	4	2.92
Total	32	23.36

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	10	7.30
13:00 - 13:59	5	3.65
14:00 - 14:59	6	4.38
15:00 - 15:59	12	8.76
16:00 - 16:59	11	8.03
17:00 - 17:59	20	14.60
18:00 - 18:59	11	8.03
19:00 - 19:59	10	7.30
20:00 - 20:59	5	3.65
21:00 - 21:59	3	2.19
22:00 - 22:59	2	1.46
23:00 - 23:59	1	0.73
Total	96	70.07
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	5.75 - 10.11	Westbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	118	86.13
Wet	18	13.14
Snow	1	0.73
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	137	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	91	66.42
Dawn	3	2.19
Dusk	4	2.92
Dark - lighted roadway	16	11.68
Dark - roadway not lighted	23	16.79
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	137	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	93	67.88
Cloudy	35	25.55
Fog, smog, smoke	0	0.00
Rain	8	5.84
Sleet, hail (freezing rain or drizzle)	1	0.73
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	137	100.00

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	5	3.65
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	5	3.65

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	10.78 - 12.29	Southbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	10.78 - 12.29	Southbound

Summary	
	# of Accs.
Total Accidents	34
Fatal Accidents	1
Total Alcohol-Related Accidents	5
Total Non Alcohol-Related Accidents	29
Total Fatalities	1
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	1
Total Pedestrian Accidents	1
Total Property Damage Accidents	17
Total Motorcycle Accidents	1
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	17	50.00
Personal Injury	15	47.06
Fatality	1	2.94
Total	34	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision - between two vehicles in transport	9	27.27
Rear-end	14	42.42
Head-on	0	0.00
Rear-to-rear	0	0.00
Angle	4	12.12
Sideswipe - same direction	5	15.15
Sideswipe - opposite direction	0	0.00
Unknown	1	3.03
Total	33	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	1	3	1
Non-Alcohol Related	0	16	13	0
Total	0	17	16	1

Total
5
29
34

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision - between two vehicles in transport	0	3	6	0	9
Rear-end	0	8	6	0	14
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	2	2	0	4
Sideswipe - same direction	0	3	1	1	5
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	1	0	1
Total	0	16	16	1	33

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	10.76 - 12.29	Southbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	5	14.71
Monday	1	2.94
Tuesday	3	8.82
Wednesday	4	11.76
Thursday	7	20.59
Friday	9	26.47
Saturday	5	14.71
Total	34	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	3	8.82
02:00 - 02:59	0	0.00
03:00 - 03:59	1	2.94
04:00 - 04:59	0	0.00
05:00 - 05:59	1	2.94
06:00 - 06:59	2	5.88
07:00 - 07:59	2	5.88
08:00 - 08:59	0	0.00
09:00 - 09:59	3	8.82
10:00 - 10:59	0	0.00
11:00 - 11:59	0	0.00
Total	12	35.29

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	4	11.76
14:00 - 14:59	1	2.94
15:00 - 15:59	2	5.88
16:00 - 16:59	1	2.94
17:00 - 17:59	9	26.47
18:00 - 18:59	2	5.88
19:00 - 19:59	0	0.00
20:00 - 20:59	2	5.88
21:00 - 21:59	1	2.94
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	22	64.71
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	10.76 - 12.29	Southbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	28	84.85
Wet	5	15.15
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	33	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	20	60.61
Dawn	0	0.00
Dusk	3	9.09
Dark - lighted roadway	4	12.12
Dark - roadway not lighted	6	18.18
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	33	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	26	78.47
Cloudy	2	5.88
Fog, smog, smoke	0	0.00
Rain	4	11.76
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	1	2.94
Total	33	97.06

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	1	2.94
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	2.94

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	10.78 - 12.29	Southbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	10.78 - 12.29	Southbound

Summary	
	# of Accs.
Total Accidents	31
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	31
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	26
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	26	83.87
Personal Injury	5	16.13
Fatality	0	0.00
Total	31	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	2	6.45
Rear-end	19	61.29
Head-on	0	0.00
Rear-to-rear	0	0.00
Angle	3	9.68
Sideswipe - same direction	6	19.35
Sideswipe - opposite direction	0	0.00
Unknown	1	3.23
Total	31	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	26	5	0
Total	0	26	5	0

Total
0
31
31

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	1	1	0	2
Rear-end	0	17	2	0	19
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	2	1	0	3
Sideswipe - same direction	0	5	1	0	6
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	1	0	0	1
Total	0	26	5	0	31

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	10.78 - 12.29	Southbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	6	19.35
Monday	4	12.90
Tuesday	3	9.68
Wednesday	6	19.35
Thursday	5	16.13
Friday	7	22.58
Saturday	0	0.00
Total	31	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	1	3.23
02:00 - 02:59	0	0.00
03:00 - 03:59	2	6.45
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	1	3.23
07:00 - 07:59	0	0.00
08:00 - 08:59	3	9.68
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	2	6.45
Total	9	29.03

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	0	0.00
14:00 - 14:59	1	3.23
15:00 - 15:59	5	16.13
16:00 - 16:59	3	9.68
17:00 - 17:59	6	19.35
18:00 - 18:59	2	6.45
19:00 - 19:59	2	6.45
20:00 - 20:59	1	3.23
21:00 - 21:59	0	0.00
22:00 - 22:59	0	0.00
23:00 - 23:59	1	3.23
Total	21	67.74
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	10.78 - 12.29	Southbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	24	77.42
Wet	7	22.58
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	31	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	20	64.52
Dawn	2	6.45
Dusk	0	0.00
Dark - lighted roadway	3	9.68
Dark - roadway not lighted	5	16.13
Dark - unknown roadway lighting	1	3.23
Other	0	0.00
Unknown	0	0.00
Total	31	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	22	70.97
Cloudy	5	16.13
Fog, smog, smoke	0	0.00
Rain	4	12.90
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	31	100.00

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	1	3.23
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	3.23

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	5.75 - 10.11	Westbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	5.75 - 10.11	Westbound

Summary	
	# of Accs.
Total Accidents	167 <i>165</i>
Fatal Accidents	0
Total Alcohol-Related Accidents	5
Total Non Alcohol-Related Accidents	147
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	1
Total Pedestrian Accidents	1
Total Property Damage Accidents	132
Total Motorcycle Accidents	2
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	129 <i>132</i>	79.04
Personal Injury	33 <i>35</i>	20.96
Fatality	0	0.00
Total	167	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	23	13.77
Rear-end	87	52.10
Head-on	0	0.00
Rear-to-rear	1	0.60
Angle	11	6.59
Sideswipe - same direction	44	26.35
Sideswipe - opposite direction	0	0.00
Unknown	1	0.60
Total	167	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	5	0	0
Non-Alcohol Related	0	116	31	0
Total	0	121	31	0

Total
5
147
152

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	16	7	0	23
Rear-end	0	72	15	0	87
Head-on	0	0	0	0	0
Rear-to-rear	0	1	0	0	1
Angle	0	7	4	0	11
Sideswipe - same direction	0	36	8	0	44
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	1	0	1
Total	0	132	35	0	167

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	5.75 - 10.11	Westbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	15	9.87
Monday	23	15.13
Tuesday	14	9.21
Wednesday	27	17.76
Thursday	20	13.16
Friday	29	19.08
Saturday	24	15.79
Total	152	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	0	0.00
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	0	0.00
07:00 - 07:59	0	0.00
08:00 - 08:59	0	0.00
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	0	0.00
Total	0	0.00

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	0	0.00
14:00 - 14:59	0	0.00
15:00 - 15:59	0	0.00
16:00 - 16:59	0	0.00
17:00 - 17:59	0	0.00
18:00 - 18:59	0	0.00
19:00 - 19:59	0	0.00
20:00 - 20:59	0	0.00
21:00 - 21:59	0	0.00
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	0	0.00
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	5.75 - 10.11	Westbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	140	83.83
Wet	26	15.57
Snow	0	0.00
Ice	1	0.60
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	167	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	106	63.47
Dawn	2	1.20
Dusk	7	4.19
Dark - lighted roadway	23	13.77
Dark - roadway not lighted	27	16.17
Dark - unknown roadway lighting	2	1.20
Other	0	0.00
Unknown	0	0.00
Total	167	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	119	71.26
Cloudy	29	17.37
Fog, smog, smoke	0	0.00
Rain	17	10.18
Sleet, hail (freezing rain or drizzle)	1	0.60
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	166	99.40

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	1	0.60
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	0.60

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	5.75 - 10.11	Westbound

01/01/2008 - 04/30/2008

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	5.75 - 10.11	Westbound

Summary	
	# of Accs.
Total Accidents	66
Fatal Accidents	1
Total Alcohol-Related Accidents	4
Total Non Alcohol-Related Accidents	62
Total Fatalities	1
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	55
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	55	83.33
Personal Injury	10	15.15
Fatality	1	1.52
Total	66	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	6	9.09
Rear-end	40	60.61
Head-on	0	0.00
Rear-to-rear	0	0.00
Angle	3	4.55
Sideswipe - same direction	17	25.76
Sideswipe - opposite direction	0	0.00
Unknown	0	0.00
Total	66	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	3	1	0
Non-Alcohol Related	0	52	9	1
Total	0	55	10	1

Total
4
62
66

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	5	1	0	6
Rear-end	0	34	5	1	40
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	2	1	0	3
Sideswipe - same direction	0	14	3	0	17
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	55	10	1	66

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	5.75 - 10.11	Westbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	6	12.12
Monday	11	16.67
Tuesday	6	9.09
Wednesday	10	15.15
Thursday	5	7.58
Friday	12	18.18
Saturday	14	21.21
Total	66	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	0	0.00
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	0	0.00
07:00 - 07:59	0	0.00
08:00 - 08:59	0	0.00
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	0	0.00
Total	0	0.00

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	0	0.00
14:00 - 14:59	0	0.00
15:00 - 15:59	0	0.00
16:00 - 16:59	0	0.00
17:00 - 17:59	0	0.00
18:00 - 18:59	0	0.00
19:00 - 19:59	0	0.00
20:00 - 20:59	0	0.00
21:00 - 21:59	0	0.00
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	0	0.00
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	56	5.75 - 10.11	Westbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	52	78.79
Wet	14	21.21
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	66	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	43	65.15
Dawn	1	1.52
Dusk	2	3.03
Dark - lighted roadway	9	13.64
Dark - roadway not lighted	11	16.67
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	66	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	45	68.18
Cloudy	12	18.18
Fog, smog, smoke	0	0.00
Rain	4	6.06
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	1	1.52
Severe crosswinds	1	1.52
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	63	95.45

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	3	4.55
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	3	4.55

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	10.78 - 12.29	Southbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	10.78 - 12.29	Southbound

Summary	
	# of Accs.
Total Accidents	47
Fatal Accidents	0
Total Alcohol-Related Accidents	2
Total Non Alcohol-Related Accidents	41
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	36
Total Motorcycle Accidents	1
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	36	76.60
Personal Injury	11	23.40
Fatality	0	0.00
Total	47	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	7	14.89
Rear-end	22	46.81
Head-on	1	2.13
Rear-to-rear	0	0.00
Angle	5	10.64
Sideswipe - same direction	11	23.40
Sideswipe - opposite direction	0	0.00
Unknown	1	2.13
Total	47	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	1	1	0
Non-Alcohol Related	0	31	10	0
Total	0	32	11	0

Total
2
41
43

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	7	0	0	7
Rear-end	0	17	5	0	22
Head-on	0	1	0	0	1
Rear-to-rear	0	0	0	0	0
Angle	0	2	3	0	5
Sideswipe - same direction	0	9	2	0	11
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	1	0	1
Total	0	36	11	0	47

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	10.78 - 12.29	Southbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	5	11.63
Monday	2	4.65
Tuesday	4	9.30
Wednesday	9	20.93
Thursday	5	11.63
Friday	11	25.58
Saturday	7	16.28
Total	43	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	0	0.00
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	0	0.00
07:00 - 07:59	0	0.00
08:00 - 08:59	0	0.00
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	0	0.00
Total	0	0.00

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	0	0.00
14:00 - 14:59	0	0.00
15:00 - 15:59	0	0.00
16:00 - 16:59	0	0.00
17:00 - 17:59	0	0.00
18:00 - 18:59	0	0.00
19:00 - 19:59	0	0.00
20:00 - 20:59	0	0.00
21:00 - 21:59	0	0.00
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	0	0.00
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	10.78 - 12.29	Southbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	38	80.85
Wet	7	14.89
Snow	2	4.26
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	47	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	30	63.83
Dawn	3	6.38
Dusk	2	4.26
Dark - lighted roadway	10	21.28
Dark - roadway not lighted	2	4.26
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	47	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	34	72.34
Cloudy	4	8.51
Fog, smog, smoke	0	0.00
Rain	7	14.89
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	1	2.13
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	46	97.87

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	1	2.13
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	2.13

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	10.78 - 12.29	Southbound

Site 2

01/01/2008 - 04/30/2008

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	59	10.78 - 12.29	Southbound

Summary	
	# of Accs.
Total Accidents	14
Fatal Accidents	0
Total Alcohol-Related Accidents	2
Total Non Alcohol-Related Accidents	12
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	11
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	11	78.57
Personal Injury	3	21.43
Fatality	0	0.00
Total	14	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	3	21.43
Rear-end	6	42.86
Head-on	0	0.00
Rear-to-rear	0	0.00
Angle	0	0.00
Sideswipe - same direction	5	35.71
Sideswipe - opposite direction	0	0.00
Unknown	0	0.00
Total	14	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	2	0	0
Non-Alcohol Related	0	9	3	0
Total	0	11	3	0

Total
2
12
14

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	2	1	0	3
Rear-end	0	4	2	0	6
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	5	0	0	5
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	11	3	0	14

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2006	New Castle	59	10.78 - 12.29	Southbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	0	0.00
Monday	2	14.29
Tuesday	3	21.43
Wednesday	1	7.14
Thursday	4	28.57
Friday	4	28.57
Saturday	0	0.00
Total	14	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	0	0.00
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	0	0.00
07:00 - 07:59	0	0.00
08:00 - 08:59	0	0.00
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	0	0.00
Total	0	0.00

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	0	0.00
14:00 - 14:59	0	0.00
15:00 - 15:59	0	0.00
16:00 - 16:59	0	0.00
17:00 - 17:59	0	0.00
18:00 - 18:59	0	0.00
19:00 - 19:59	0	0.00
20:00 - 20:59	0	0.00
21:00 - 21:59	0	0.00
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	0	0.00
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2006	New Castle	59	10.78 - 12.29	Southbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	11	78.57
Wet	3	21.43
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	14	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	9	64.29
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	4	28.57
Dark - roadway not lighted	1	7.14
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	14	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	6	42.86
Cloudy	5	35.71
Fog, smog, smoke	0	0.00
Rain	3	21.43
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	14	100.00

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	5.60 - 5.94	Northbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	5.60 - 5.94	Northbound

Summary	
	# of Accs.
Total Accidents	4
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	4
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	3
Total Motorcycle Accidents	1
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	3	75.00
Personal Injury	1	25.00
Fatality	0	0.00
Total	4	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	0	0.00
Rear-end	3	75.00
Head-on	0	0.00
Rear-to-rear	0	0.00
Angle	0	0.00
Sideswipe - same direction	1	25.00
Sideswipe - opposite direction	0	0.00
Unknown	0	0.00
Total	4	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	3	1	0
Total	0	3	1	0

Total
0
4
4

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	0	0	0
Rear-end	0	2	1	0	3
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	1	0	0	1
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	3	1	0	4

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	5.60 - 5.94	Northbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	1	25.00
Monday	0	0.00
Tuesday	1	25.00
Wednesday	1	25.00
Thursday	1	25.00
Friday	0	0.00
Saturday	0	0.00
Total	4	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	0	0.00
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	0	0.00
07:00 - 07:59	0	0.00
08:00 - 08:59	1	25.00
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	0	0.00
Total	1	25.00

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	0	0.00
14:00 - 14:59	1	25.00
15:00 - 15:59	2	50.00
16:00 - 16:59	0	0.00
17:00 - 17:59	0	0.00
18:00 - 18:59	0	0.00
19:00 - 19:59	0	0.00
20:00 - 20:59	0	0.00
21:00 - 21:59	0	0.00
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	3	75.00
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	5.60 - 5.94	Northbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	2	50.00
Wet	2	50.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	4	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	4	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	4	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	2	50.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	2	50.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	4	100.00

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	5.80 - 5.94	Northbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	5.80 - 5.94	Northbound

Summary	
	# of Accs.
Total Accidents	7
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	7
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	7
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	7	100.00
Personal Injury	0	0.00
Fatality	0	0.00
Total	7	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	2	28.57
Rear-end	3	42.86
Head-on	0	0.00
Rear-to-rear	0	0.00
Angle	1	14.29
Sideswipe - same direction	1	14.29
Sideswipe - opposite direction	0	0.00
Unknown	0	0.00
Total	7	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	7	0	0
Total	0	7	0	0

Total
0
7
7

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	2	0	0	2
Rear-end	0	3	0	0	3
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	1	0	0	1
Sideswipe - same direction	0	1	0	0	1
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	7	0	0	7

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	5.60 - 5.94	Northbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	0	0.00
Monday	1	14.29
Tuesday	1	14.29
Wednesday	3	42.86
Thursday	2	28.57
Friday	0	0.00
Saturday	0	0.00
Total	7	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	0	0.00
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	1	14.29
07:00 - 07:59	0	0.00
08:00 - 08:59	0	0.00
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	1	14.29
Total	2	28.57

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	1	14.29
13:00 - 13:59	0	0.00
14:00 - 14:59	0	0.00
15:00 - 15:59	0	0.00
16:00 - 16:59	0	0.00
17:00 - 17:59	1	14.29
18:00 - 18:59	0	0.00
19:00 - 19:59	1	14.29
20:00 - 20:59	0	0.00
21:00 - 21:59	0	0.00
22:00 - 22:59	0	0.00
23:00 - 23:59	2	28.57
Total	5	71.43
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	5.60 - 5.94	Northbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	7	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	7	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	4	57.14
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	3	42.86
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	7	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	6	85.71
Cloudy	1	14.29
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	7	100.00

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	3.96 - 5.59	Northbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	3.96 - 5.59	Northbound

Summary	
	# of Accs.
Total Accidents	29
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	29
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	23
Total Motorcycle Accidents	1
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	23	79.31
Personal Injury	6	20.69
Fatality	0	0.00
Total	29	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	3	10.71
Rear-end	21	75.00
Head-on	0	0.00
Rear-to-rear	0	0.00
Angle	1	3.57
Sideswipe - same direction	1	3.57
Sideswipe - opposite direction	1	3.57
Unknown	1	3.57
Total	28	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	23	6	0
Total	0	23	6	0

Total
0
29
29

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	3	0	0	3
Rear-end	0	17	4	0	21
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	1	0	0	1
Sideswipe - same direction	0	1	0	0	1
Sideswipe - opposite direction	0	0	1	0	1
Unknown	0	0	1	0	1
Total	0	22	6	0	28

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	3.96 - 5.59	Northbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	5	17.24
Monday	3	10.34
Tuesday	3	10.34
Wednesday	7	24.14
Thursday	3	10.34
Friday	6	20.69
Saturday	2	6.90
Total	29	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	1	3.45
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	4	13.79
07:00 - 07:59	6	20.69
08:00 - 08:59	1	3.45
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	1	3.45
Total	13	44.83

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	2	6.90
14:00 - 14:59	1	3.45
15:00 - 15:59	1	3.45
16:00 - 16:59	3	10.34
17:00 - 17:59	5	17.24
18:00 - 18:59	2	6.90
19:00 - 19:59	1	3.45
20:00 - 20:59	0	0.00
21:00 - 21:59	1	3.45
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	16	55.17
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	3.96 - 5.59	Northbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	26	92.86
Wet	2	7.14
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	28	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	20	71.43
Dawn	3	10.71
Dusk	0	0.00
Dark - lighted roadway	3	10.71
Dark - roadway not lighted	2	7.14
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	28	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	21	72.41
Cloudy	6	20.69
Fog, smog, smoke	0	0.00
Rain	1	3.45
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	28	98.55

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	3.96 - 5.59	Northbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	3.96 - 5.59	Northbound

Summary	
	# of Accs.
Total Accidents	50
Fatal Accidents	0
Total Alcohol-Related Accidents	3
Total Non Alcohol-Related Accidents	47
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	41
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	41	82.00
Personal Injury	9	18.00
Fatality	0	0.00
Total	50	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	12	24.00
Rear-end	31	62.00
Head-on	0	0.00
Rear-to-rear	0	0.00
Angle	2	4.00
Sideswipe - same direction	4	8.00
Sideswipe - opposite direction	0	0.00
Unknown	1	2.00
Total	50	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	3	0	0
Non-Alcohol Related	0	38	9	0
Total	0	41	9	0

Total
3
47
50

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	10	2	0	12
Rear-end	0	26	5	0	31
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	1	1	0	2
Sideswipe - same direction	0	4	0	0	4
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	1	0	1
Total	0	41	9	0	50

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	3.96 - 5.59	Northbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	7	14.00
Monday	8	16.00
Tuesday	7	14.00
Wednesday	9	18.00
Thursday	4	8.00
Friday	11	22.00
Saturday	4	8.00
Total	50	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	1	2.00
01:00 - 01:59	0	0.00
02:00 - 02:59	1	2.00
03:00 - 03:59	2	4.00
04:00 - 04:59	1	2.00
05:00 - 05:59	0	0.00
06:00 - 06:59	2	4.00
07:00 - 07:59	8	16.00
08:00 - 08:59	9	18.00
09:00 - 09:59	0	0.00
10:00 - 10:59	2	4.00
11:00 - 11:59	0	0.00
Total	26	52.00

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	4	8.00
14:00 - 14:59	4	8.00
15:00 - 15:59	1	2.00
16:00 - 16:59	2	4.00
17:00 - 17:59	3	6.00
18:00 - 18:59	2	4.00
19:00 - 19:59	0	0.00
20:00 - 20:59	0	0.00
21:00 - 21:59	3	6.00
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	19	38.00
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	3.96 - 5.59	Northbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	37	74.00
Wet	11	22.00
Snow	0	0.00
Ice	1	2.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	1	2.00
Unknown	0	0.00
Total	50	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	39	78.00
Dawn	3	6.00
Dusk	0	0.00
Dark - lighted roadway	3	6.00
Dark - roadway not lighted	4	8.00
Dark - unknown roadway lighting	1	2.00
Other	0	0.00
Unknown	0	0.00
Total	50	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	35	70.00
Cloudy	4	8.00
Fog, smog, smoke	2	4.00
Rain	7	14.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	1	2.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	49	98.00

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	1	2.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	2.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	5.60 - 5.94	Northbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	5.60 - 5.94	Northbound

Summary	
	# of Accs.
Total Accidents	6
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	6
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	6
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	6	100.00
Personal Injury	0	0.00
Fatality	0	0.00
Total	6	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	1	16.67
Rear-end	2	33.33
Head-on	0	0.00
Rear-to-rear	0	0.00
Angle	1	16.67
Sideswipe - same direction	2	33.33
Sideswipe - opposite direction	0	0.00
Unknown	0	0.00
Total	6	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	6	0	0
Total	0	6	0	0

Total
0
6
6

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	1	0	0	1
Rear-end	0	2	0	0	2
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	1	0	0	1
Sideswipe - same direction	0	2	0	0	2
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	6	0	0	6

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	5.90 - 5.94	Northbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	1	16.67
Monday	1	16.67
Tuesday	0	0.00
Wednesday	2	33.33
Thursday	0	0.00
Friday	1	16.67
Saturday	1	16.67
Total	6	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	0	0.00
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	0	0.00
07:00 - 07:59	0	0.00
08:00 - 08:59	0	0.00
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	0	0.00
Total	0	0.00

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	0	0.00
14:00 - 14:59	0	0.00
15:00 - 15:59	0	0.00
16:00 - 16:59	0	0.00
17:00 - 17:59	0	0.00
18:00 - 18:59	0	0.00
19:00 - 19:59	0	0.00
20:00 - 20:59	0	0.00
21:00 - 21:59	0	0.00
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	0	0.00
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	5.90 - 5.94	Northbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	5	83.33
Wet	1	16.67
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	6	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	6	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	6	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	4	66.67
Cloudy	1	16.67
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	5	83.33

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	1	16.67
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	16.67

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	5.60 - 5.94	Northbound

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01/01/2008 - 04/30/2008

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	5.60 - 5.94	Northbound

Summary	
	# of Accs.
Total Accidents	4
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	4
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	4
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	4	100.00
Personal Injury	0	0.00
Fatality	0	0.00
Total	4	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	2	50.00
Rear-end	2	50.00
Head-on	0	0.00
Rear-to-rear	0	0.00
Angle	0	0.00
Sideswipe - same direction	0	0.00
Sideswipe - opposite direction	0	0.00
Unknown	0	0.00
Total	4	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	4	0	0
Total	0	4	0	0

Total
0
4
4

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	2	0	0	2
Rear-end	0	2	0	0	2
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	4	0	0	4

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	5.60 - 5.94	Northbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	0	0.00
Monday	0	0.00
Tuesday	1	25.00
Wednesday	1	25.00
Thursday	0	0.00
Friday	2	50.00
Saturday	0	0.00
Total	4	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	0	0.00
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	0	0.00
07:00 - 07:59	0	0.00
08:00 - 08:59	0	0.00
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	0	0.00
Total	0	0.00

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	0	0.00
14:00 - 14:59	0	0.00
15:00 - 15:59	0	0.00
16:00 - 16:59	0	0.00
17:00 - 17:59	0	0.00
18:00 - 18:59	0	0.00
19:00 - 19:59	0	0.00
20:00 - 20:59	0	0.00
21:00 - 21:59	0	0.00
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	0	0.00
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	5.60 - 5.94	Northbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	25.00
Wet	1	25.00
Snow	1	25.00
Ice	1	25.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	4	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	2	50.00
Dawn	1	25.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	1	25.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	4	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	1	25.00
Cloudy	1	25.00
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	1	25.00
Snow	1	25.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	4	100.00

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	3.96 - 5.59	Northbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	3.96 - 5.59	Northbound

Summary	
	# of Accs.
Total Accidents	45
Fatal Accidents	0
Total Alcohol-Related Accidents	2
Total Non Alcohol-Related Accidents	41
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	31
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	2	4.44
Reportable	29	64.44
Personal Injury	14	31.11
Fatality	0	0.00
Total	45	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	9	20.00
Rear-end	26	57.78
Head-on	0	0.00
Rear-to-rear	0	0.00
Angle	2	4.44
Sideswipe - same direction	8	17.78
Sideswipe - opposite direction	0	0.00
Unknown	0	0.00
Total	45	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	1	1	0
Non-Alcohol Related	2	26	13	0
Total	2	27	14	0

Total
2
41
43

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	7	2	0	9
Rear-end	2	14	10	0	26
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	1	1	0	2
Sideswipe - same direction	0	7	1	0	8
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	2	29	14	0	45

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	3.96 - 5.59	Northbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	3	6.98
Monday	4	9.30
Tuesday	6	13.95
Wednesday	6	13.95
Thursday	6	13.95
Friday	11	25.58
Saturday	7	16.28
Total	43	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	0	0.00
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	0	0.00
07:00 - 07:59	0	0.00
08:00 - 08:59	0	0.00
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	0	0.00
Total	0	0.00

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	0	0.00
14:00 - 14:59	0	0.00
15:00 - 15:59	0	0.00
16:00 - 16:59	0	0.00
17:00 - 17:59	0	0.00
18:00 - 18:59	0	0.00
19:00 - 19:59	0	0.00
20:00 - 20:59	0	0.00
21:00 - 21:59	0	0.00
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	0	0.00
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	3.96 - 5.59	Northbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	34	75.56
Wet	5	11.11
Snow	5	11.11
Ice	1	2.22
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	45	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	32	71.11
Dawn	2	4.44
Dusk	2	4.44
Dark - lighted roadway	4	8.89
Dark - roadway not lighted	5	11.11
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	45	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	29	64.44
Cloudy	5	11.11
Fog, smog, smoke	0	0.00
Rain	4	8.89
Sleet, hail (freezing rain or drizzle)	2	4.44
Snow	2	4.44
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	42	93.33

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	1	2.22
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	2	4.44
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	3	6.67

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	3.96 - 5.59	Northbound

Site 4

01/01/2008 - 04/30/2008

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	3.96 - 5.59	Northbound

Summary	
	# of Accs.
Total Accidents	9
Fatal Accidents	0
Total Alcohol-Related Accidents	1
Total Non Alcohol-Related Accidents	8
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	9
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	9	100.00
Personal Injury	0	0.00
Fatality	0	0.00
Total	9	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	1	11.11
Rear-end	3	33.33
Head-on	0	0.00
Rear-to-rear	1	11.11
Angle	1	11.11
Sideswipe - same direction	3	33.33
Sideswipe - opposite direction	0	0.00
Unknown	0	0.00
Total	9	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	1	0	0
Non-Alcohol Related	0	8	0	0
Total	0	9	0	0

Total
1
8
9

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	1	0	0	1
Rear-end	0	3	0	0	3
Head-on	0	0	0	0	0
Rear-to-rear	0	1	0	0	1
Angle	0	1	0	0	1
Sideswipe - same direction	0	3	0	0	3
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	9	0	0	9

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	3.95 - 5.59	Northbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	1	11.11
Monday	2	22.22
Tuesday	0	0.00
Wednesday	3	33.33
Thursday	0	0.00
Friday	1	11.11
Saturday	2	22.22
Total	9	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	0	0.00
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	0	0.00
07:00 - 07:59	0	0.00
08:00 - 08:59	0	0.00
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	0	0.00
Total	0	0.00

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	0	0.00
14:00 - 14:59	0	0.00
15:00 - 15:59	0	0.00
16:00 - 16:59	0	0.00
17:00 - 17:59	0	0.00
18:00 - 18:59	0	0.00
19:00 - 19:59	0	0.00
20:00 - 20:59	0	0.00
21:00 - 21:59	0	0.00
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	0	0.00
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	3.95 - 5.59	Northbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	8	88.89
Wet	1	11.11
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	9	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	8	88.89
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	1	11.11
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	9	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	6	66.67
Cloudy	2	22.22
Fog, smog, smoke	0	0.00
Rain	1	11.11
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	9	100.00

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.60 - 0.95	Southbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.60 - 0.95	Southbound

Summary	
	# of Accs.
Total Accidents	3
Fatal Accidents	0
Total Alcohol-Related Accidents	2
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	1
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	1	33.33
Personal Injury	2	66.67
Fatality	0	0.00
Total	3	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	1	33.33
Rear-end	2	66.67
Head-on	0	0.00
Rear-to-rear	0	0.00
Angle	0	0.00
Sideswipe - same direction	0	0.00
Sideswipe - opposite direction	0	0.00
Unknown	0	0.00
Total	3	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	2	0
Non-Alcohol Related	0	1	0	0
Total	0	1	2	0

Total
2
1
3

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	1	0	1
Rear-end	0	1	1	0	2
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	1	2	0	3

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.60 - 0.95	Southbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	0	0.00
Monday	1	33.33
Tuesday	0	0.00
Wednesday	1	33.33
Thursday	1	33.33
Friday	0	0.00
Saturday	0	0.00
Total	3	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	0	0.00
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	0	0.00
07:00 - 07:59	0	0.00
08:00 - 08:59	0	0.00
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	0	0.00
Total	0	0.00

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	0	0.00
14:00 - 14:59	0	0.00
15:00 - 15:59	0	0.00
16:00 - 16:59	0	0.00
17:00 - 17:59	1	33.33
18:00 - 18:59	0	0.00
19:00 - 19:59	0	0.00
20:00 - 20:59	0	0.00
21:00 - 21:59	0	0.00
22:00 - 22:59	0	0.00
23:00 - 23:59	2	66.67
Total	3	100.00
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.60 - 0.95	Southbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	2	66.67
Wet	1	33.33
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	3	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	1	33.33
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	1	33.33
Dark - roadway not lighted	1	33.33
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	3	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	2	66.67
Cloudy	1	33.33
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	3	100.00

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	1	33.33
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	33.33

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.60 - 0.95	Southbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.60 - 0.95	Southbound

Summary	
	# of Accs.
Total Accidents	5
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	5
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	5
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	5	100.00
Personal injury	0	0.00
Fatality	0	0.00
Total	5	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	0	0.00
Rear-end	3	60.00
Head-on	0	0.00
Rear-to-rear	0	0.00
Angle	0	0.00
Sideswipe - same direction	2	40.00
Sideswipe - opposite direction	0	0.00
Unknown	0	0.00
Total	5	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	5	0	0
Total	0	5	0	0

Total
0
5
5

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	0	0	0
Rear-end	0	3	0	0	3
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	2	0	0	2
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	5	0	0	5

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.60 - 0.95	Southbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	0	0.00
Monday	2	40.00
Tuesday	1	20.00
Wednesday	1	20.00
Thursday	0	0.00
Friday	1	20.00
Saturday	0	0.00
Total	5	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	0	0.00
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	0	0.00
07:00 - 07:59	2	40.00
08:00 - 08:59	0	0.00
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	0	0.00
Total	2	40.00

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	0	0.00
14:00 - 14:59	0	0.00
15:00 - 15:59	1	20.00
16:00 - 16:59	1	20.00
17:00 - 17:59	0	0.00
18:00 - 18:59	1	20.00
19:00 - 19:59	0	0.00
20:00 - 20:59	0	0.00
21:00 - 21:59	0	0.00
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	3	60.00
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.60 - 0.95	Southbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	3	60.00
Wet	2	40.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	5	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	4	80.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	1	20.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	5	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	2	40.00
Cloudy	2	40.00
Fog, smog, smoke	0	0.00
Rain	1	20.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	5	100.00

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.96 - 2.58	Southbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.96 - 2.58	Southbound

Summary	
	# of Accs.
Total Accidents	14
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	14
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	11
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	11	78.57
Personal Injury	3	21.43
Fatality	0	0.00
Total	14	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision - between two vehicles in transport	4	30.77
Rear-end	4	30.77
Head-on	0	0.00
Rear-to-rear	1	7.69
Angle	1	7.69
Sideswipe - same direction	2	15.38
Sideswipe - opposite direction	1	7.69
Unknown	0	0.00
Total	13	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	11	3	0
Total	0	11	3	0

Total
0
14
14

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision - between two vehicles in transport	0	4	0	0	4
Rear-end	0	3	1	0	4
Head-on	0	0	0	0	0
Rear-to-rear	0	0	1	0	1
Angle	0	0	1	0	1
Sideswipe - same direction	0	2	0	0	2
Sideswipe - opposite direction	0	1	0	0	1
Unknown	0	0	0	0	0
Total	0	10	3	0	13

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.96 - 2.58	Southbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	0	0.00
Monday	0	0.00
Tuesday	4	28.57
Wednesday	2	14.29
Thursday	2	14.29
Friday	5	35.71
Saturday	1	7.14
Total	14	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	0	0.00
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	0	0.00
07:00 - 07:59	1	7.14
08:00 - 08:59	1	7.14
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	1	7.14
Total	3	21.43

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	1	7.14
13:00 - 13:59	2	14.29
14:00 - 14:59	1	7.14
15:00 - 15:59	1	7.14
16:00 - 16:59	2	14.29
17:00 - 17:59	2	14.29
18:00 - 18:59	2	14.29
19:00 - 19:59	0	0.00
20:00 - 20:59	0	0.00
21:00 - 21:59	0	0.00
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	11	78.57
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.96 - 2.58	Southbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	9	69.23
Wet	3	23.08
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	1	7.69
Other	0	0.00
Unknown	0	0.00
Total	13	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	12	92.31
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	1	7.69
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	13	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	9	64.29
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	3	21.43
Sleet, hail (freezing rain or drizzle)	1	7.14
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	13	92.86

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2006	New Castle	67	0.96 - 2.58	Southbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2006	New Castle	67	0.96 - 2.58	Southbound

Summary	
	# of Accs.
Total Accidents	19
Fatal Accidents	0
Total Alcohol-Related Accidents	2
Total Non Alcohol-Related Accidents	17
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	16
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	16	84.21
Personal Injury	3	15.79
Fatality	0	0.00
Total	19	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision - between two vehicles in transport	6	31.58
Rear-end	9	47.37
Head-on	0	0.00
Rear-to-rear	0	0.00
Angle	2	10.53
Sideswipe - same direction	2	10.53
Sideswipe - opposite direction	0	0.00
Unknown	0	0.00
Total	19	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	2	0	0
Non-Alcohol Related	0	14	3	0
Total	0	16	3	0

Total
2
17
19

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision - between two vehicles in transport	0	5	1	0	6
Rear-end	0	8	1	0	9
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	2	0	0	2
Sideswipe - same direction	0	1	1	0	2
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	16	3	0	19

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.96 - 2.58	Southbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	1	5.26
Monday	3	15.79
Tuesday	3	15.79
Wednesday	1	5.26
Thursday	0	0.00
Friday	6	31.58
Saturday	5	26.32
Total	19	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	2	10.53
02:00 - 02:59	1	5.26
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	1	5.26
07:00 - 07:59	0	0.00
08:00 - 08:59	0	0.00
09:00 - 09:59	1	5.26
10:00 - 10:59	0	0.00
11:00 - 11:59	1	5.26
Total	6	31.58

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	1	5.26
13:00 - 13:59	2	10.53
14:00 - 14:59	0	0.00
15:00 - 15:59	0	0.00
16:00 - 16:59	2	10.53
17:00 - 17:59	0	0.00
18:00 - 18:59	2	10.53
19:00 - 19:59	0	0.00
20:00 - 20:59	1	5.26
21:00 - 21:59	2	10.53
22:00 - 22:59	0	0.00
23:00 - 23:59	1	5.26
Total	11	57.89
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.96 - 2.58	Southbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	14	73.68
Wet	5	26.32
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	19	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	9	47.37
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	5	26.32
Dark - roadway not lighted	5	26.32
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	19	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	14	73.68
Cloudy	1	5.26
Fog, smog, smoke	0	0.00
Rain	4	21.05
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	19	100.00

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.60 - 0.95	Southbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.60 - 0.95	Southbound

Summary	
	# of Accs.
Total Accidents	5
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	5
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	5
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	5	100.00
Personal Injury	0	0.00
Fatality	0	0.00
Total	5	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	1	20.00
Rear-end	2	40.00
Head-on	0	0.00
Rear-to-rear	0	0.00
Angle	2	40.00
Sideswipe - same direction	0	0.00
Sideswipe - opposite direction	0	0.00
Unknown	0	0.00
Total	5	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	5	0	0
Total	0	5	0	0

Total
0
5
5

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	1	0	0	1
Rear-end	0	2	0	0	2
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	2	0	0	2
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	5	0	0	5

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.60 - 0.95	Southbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	0	0.00
Monday	1	20.00
Tuesday	0	0.00
Wednesday	0	0.00
Thursday	1	20.00
Friday	2	40.00
Saturday	1	20.00
Total	5	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	0	0.00
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	0	0.00
07:00 - 07:59	0	0.00
08:00 - 08:59	0	0.00
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	0	0.00
Total	0	0.00

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	0	0.00
14:00 - 14:59	0	0.00
15:00 - 15:59	0	0.00
16:00 - 16:59	0	0.00
17:00 - 17:59	0	0.00
18:00 - 18:59	0	0.00
19:00 - 19:59	0	0.00
20:00 - 20:59	0	0.00
21:00 - 21:59	0	0.00
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	0	0.00
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.60 - 0.95	Southbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	2	40.00
Wet	3	60.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	5	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	3	60.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	2	40.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	5	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	3	60.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	2	40.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	5	100.00

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.60 - 0.95	Southbound

*Site 3
complete CA*

01/01/2008 - 04/30/2008

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.60 - 0.95	Southbound

Summary	
	# of Accs.
Total Accidents	2
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	2
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	2
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	2	100.00
Personal Injury	0	0.00
Fatality	0	0.00
Total	2	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	0	0.00
Rear-end	1	50.00
Head-on	0	0.00
Rear-to-rear	0	0.00
Angle	1	50.00
Sideswipe - same direction	0	0.00
Sideswipe - opposite direction	0	0.00
Unknown	0	0.00
Total	2	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	2	0	0
Total	0	2	0	0

Total
0
2
2

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	0	0	0
Rear-end	0	1	0	0	1
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	1	0	0	1
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	2	0	0	2

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.60 - 0.95	Southbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	0	0.00
Monday	0	0.00
Tuesday	0	0.00
Wednesday	0	0.00
Thursday	0	0.00
Friday	1	50.00
Saturday	1	50.00
Total	2	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	0	0.00
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	0	0.00
07:00 - 07:59	0	0.00
08:00 - 08:59	0	0.00
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	0	0.00
Total	0	0.00

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	0	0.00
14:00 - 14:59	0	0.00
15:00 - 15:59	0	0.00
16:00 - 16:59	0	0.00
17:00 - 17:59	0	0.00
18:00 - 18:59	0	0.00
19:00 - 19:59	0	0.00
20:00 - 20:59	0	0.00
21:00 - 21:59	0	0.00
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	0	0.00
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.60 - 0.95	Southbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	50.00
Wet	1	50.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	0	0.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	2	100.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	1	50.00
Fog, smog, smoke	0	0.00
Rain	1	50.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.96 - 2.58	Southbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.96 - 2.58	Southbound

Summary	
	# of Accs.
Total Accidents	23
Fatal Accidents	0
Total Alcohol-Related Accidents	2
Total Non Alcohol-Related Accidents	20
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	17
Total Motorcycle Accidents	1
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	17	73.91
Personal Injury	6	26.09
Fatality	0	0.00
Total	23	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	10	43.48
Rear-end	6	26.09
Head-on	0	0.00
Rear-to-rear	0	0.00
Angle	3	13.04
Sideswipe - same direction	4	17.39
Sideswipe - opposite direction	0	0.00
Unknown	0	0.00
Total	23	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	2	0	0
Non-Alcohol Related	0	14	6	0
Total	0	16	6	0

Total
2
20
22

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	6	4	0	10
Rear-end	0	6	0	0	6
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	1	2	0	3
Sideswipe - same direction	0	4	0	0	4
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	17	6	0	23

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.96 - 2.58	Southbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	5	22.73
Monday	1	4.55
Tuesday	2	9.09
Wednesday	2	9.09
Thursday	4	18.18
Friday	3	13.64
Saturday	5	22.73
Total	22	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	0	0.00
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	0	0.00
07:00 - 07:59	0	0.00
08:00 - 08:59	0	0.00
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	0	0.00
Total	0	0.00

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	0	0.00
14:00 - 14:59	0	0.00
15:00 - 15:59	0	0.00
16:00 - 16:59	0	0.00
17:00 - 17:59	0	0.00
18:00 - 18:59	0	0.00
19:00 - 19:59	0	0.00
20:00 - 20:59	0	0.00
21:00 - 21:59	0	0.00
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	0	0.00
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.96 - 2.58	Southbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	16	69.57
Wet	4	17.39
Snow	3	13.04
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	23	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	15	65.22
Dawn	0	0.00
Dusk	1	4.35
Dark - lighted roadway	6	26.09
Dark - roadway not lighted	1	4.35
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	23	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	14	60.87
Cloudy	3	13.04
Fog, smog, smoke	1	4.35
Rain	2	8.70
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	2	8.70
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	22	95.65

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	0	0.00
Snow	1	4.35
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	4.35

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.96 - 2.58	Southbound

Site 4

01/01/2008 - 04/30/2008

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.96 - 2.58	Southbound

Summary	
	# of Accs.
Total Accidents	5
Fatal Accidents	0
Total Alcohol-Related Accidents	1
Total Non Alcohol-Related Accidents	4
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	3
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Classifications		
	# of Accs.	% of Total Accs.
Non-reportable Crash	0	0.00
Reportable	3	60.00
Personal Injury	2	40.00
Fatality	0	0.00
Total	5	100.00

Manner Of Impact		
	# of Accs.	% of Total Accs.
Not collision between two vehicles in transport	1	20.00
Rear-end	1	20.00
Head-on	0	0.00
Rear-to-rear	0	0.00
Angle	1	20.00
Sideswipe - same direction	2	40.00
Sideswipe - opposite direction	0	0.00
Unknown	0	0.00
Total	5	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	1	0
Non-Alcohol Related	0	3	1	0
Total	0	3	2	0

Total
1
4
5

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	1	0	0	1
Rear-end	0	1	0	0	1
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	1	0	0	1
Sideswipe - same direction	0	0	2	0	2
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	3	2	0	5

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.96 - 2.58	Southbound

Day Of Week		
	# of Accs.	% of Total Accs.
Sunday	2	40.00
Monday	0	0.00
Tuesday	2	40.00
Wednesday	0	0.00
Thursday	0	0.00
Friday	1	20.00
Saturday	0	0.00
Total	5	100.00

Time Of Day (AM)		
	# of Accs.	% of Total Accs.
00:00 - 00:59	0	0.00
01:00 - 01:59	0	0.00
02:00 - 02:59	0	0.00
03:00 - 03:59	0	0.00
04:00 - 04:59	0	0.00
05:00 - 05:59	0	0.00
06:00 - 06:59	0	0.00
07:00 - 07:59	0	0.00
08:00 - 08:59	0	0.00
09:00 - 09:59	0	0.00
10:00 - 10:59	0	0.00
11:00 - 11:59	0	0.00
Total	0	0.00

Time Of Day (PM)		
	# of Accs.	% of Total Accs.
12:00 - 12:59	0	0.00
13:00 - 13:59	0	0.00
14:00 - 14:59	0	0.00
15:00 - 15:59	0	0.00
16:00 - 16:59	0	0.00
17:00 - 17:59	0	0.00
18:00 - 18:59	0	0.00
19:00 - 19:59	0	0.00
20:00 - 20:59	0	0.00
21:00 - 21:59	0	0.00
22:00 - 22:59	0	0.00
23:00 - 23:59	0	0.00
Total	0	0.00
Unknown Time	0	0.00

State of Delaware Accident Study Summary

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 04/30/2008	New Castle	67	0.96 - 2.58	Southbound

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	0	0.00
Wet	2	40.00
Snow	0	0.00
Ice	3	60.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	5	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	2	40.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	3	60.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	5	100.00

Weather Conditions (Weather Code 1)		
	# of Accs.	% of Total Accs.
Clear	1	20.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	1	20.00
Sleet, hail (freezing rain or drizzle)	1	20.00
Snow	1	20.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	4	80.00

Weather Conditions (Weather Code 2)		
	# of Accs.	% of Total Accs.
Clear	0	0.00
Cloudy	0	0.00
Fog, smog, smoke	0	0.00
Rain	0	0.00
Sleet, hail (freezing rain or drizzle)	1	20.00
Snow	0	0.00
Severe crosswinds	0	0.00
Blowing sand, soil, dirt, snow	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	20.00

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6052	0.00 - 0.39	Eastbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6052	0.00 - 0.39	Eastbound

Summary	
	# of Accs.
Total Accidents	5
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	5
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	4
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	3	60.00
Wet	2	40.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	5	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	4	80.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	1	20.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	5	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	4	1	0
Total	0	4	1	0

Total
0
5
5

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	3	0	0	3
Rear-end	0	0	1	0	1
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	1	0	0	1
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	4	1	0	5

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6052	0.00 - 0.39	Eastbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6052	0.00 - 0.39	Eastbound

Summary	
	# of Accs.
Total Accidents	6
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	6
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	4
Total Motorcycle Accidents	1
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	6	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	6	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	5	83.33
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	1	16.67
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	6	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	4	2	0
Total	0	4	2	0

Total
0
6
6

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	1	2	0	3
Rear-end	0	2	0	0	2
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	1	0	0	1
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	4	2	0	6

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6052	0.00 - 0.39	Eastbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6052	0.00 - 0.39	Eastbound

Summary	
	# of Accs.
Total Accidents	5
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	4
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	4
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	3	60.00
Wet	1	20.00
Snow	1	20.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	5	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	5	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	5	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	4	0	0
Total	0	4	0	0

Total
0
4
4

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision - between two vehicles in transport	0	1	0	0	1
Rear-end	0	3	0	0	3
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	1	0	1
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	4	1	0	5

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6052	0.00 - 0.39	Eastbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6052	0.00 - 0.39	Eastbound

Summary	
	# of Accs.
Total Accidents	2
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	2
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	2
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	2	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, cll, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	2	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	2	0	0
Total	0	2	0	0

Total
0
2
2

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	0	0	0
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	1	0	0	1
Sideswipe - same direction	0	1	0	0	1
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	2	0	0	2

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6053	0.00 - 0.26	Southbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6053	0.00 - 0.26	Southbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	1
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	0	0.00
Wet	1	100.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	1	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	1	0	0
Total	0	1	0	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision - between two vehicles in transport	0	1	0	0	1
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	1	0	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6053	0.00 - 0.26	Southbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6053	0.00 - 0.26	Southbound

Summary	
	# of Accs.
Total Accidents	3
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	3
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	2
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	3	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	3	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	1	33.33
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	2	66.67
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	3	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	2	1	0
Total	0	2	1	0

Total
0
3
3

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	1	1	0	2
Rear-end	0	1	0	0	1
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	2	1	0	3

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6053	0.00 - 0.26	Southbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6053	0.00 - 0.26	Southbound

Summary	
	# of Accs.
Total Accidents	2
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	2
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	1
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	50.00
Wet	1	50.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	2	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	1	1	0
Total	0	1	1	0

Total
0
2
2

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	1	0	0	1
Rear-end	0	0	1	0	1
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	1	1	0	2

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6053	0.00 - 0.26	Southbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6053	0.00 - 0.26	Southbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	1
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	0	0.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	1	100.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	1	0	0
Total	0	1	0	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	0	0	0
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	1	0	0	1
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	1	0	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6054	0.00 - 0.39	Westbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6054	0.00 - 0.39	Westbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	1
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	1	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	1	0	0
Total	0	1	0	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	0	0	0
Rear-end	0	1	0	0	1
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	1	0	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6054	0.00 - 0.39	Westbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6054	0.00 - 0.39	Westbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6054	0.00 - 0.39	Westbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6054	0.00 - 0.39	Westbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	1
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	0	0.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	1	100.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	1	0	0
Total	0	1	0	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	0	0	0
Rear-end	0	1	0	0	1
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	1	0	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6054	0.00 - 0.39	Westbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6054	0.00 - 0.39	Westbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6055	0.00 - 0.19	Westbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6055	0.00 - 0.19	Westbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6055	0.00 - 0.19	Westbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6055	0.00 - 0.19	Westbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6055	0.00 - 0.19	Westbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6055	0.00 - 0.19	Westbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	1
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	1	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	1	0	0
Total	0	1	0	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	1	0	0	1
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	1	0	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6055	0.00 - 0.19	Westbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6055	0.00 - 0.19	Westbound

Summary	
	# of Accs.
Total Accidents	2
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	2
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	1
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	2	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	2	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	1	1	0
Total	0	1	1	0

Total
0
2
2

Manner Of Impact By Classification						
	Non-Reportable	Reportable	Personal Injury	Fatality	Total	
Not collision between two vehicles in transport	0	0	0	0	0	
Rear-end	0	1	1	0	2	
Head-on	0	0	0	0	0	
Rear-to-rear	0	0	0	0	0	
Angle	0	0	0	0	0	
Sideswipe - same direction	0	0	0	0	0	
Sideswipe - opposite direction	0	0	0	0	0	
Unknown	0	0	0	0	0	
Total	0	1	1	0	2	

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6056	0.00 - 0.32	Northbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6256	0.00 - 0.32	Northbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6056	0.00 - 0.32	Northbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6056	0.00 - 0.32	Northbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	0
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	0	0.00
Wet	1	100.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	1	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	0	1	0
Total	0	0	1	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	0	0	0
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	1	0	1
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	0	1	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6056	0.00 - 0.32	Northbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6056	0.00 - 0.32	Northbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	1
Total Non Alcohol-Related Accidents	0
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	0
Total Motorcycle Accidents	1
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	0	0.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	1	100.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	1	0
Non-Alcohol Related	0	0	0	0
Total	0	0	1	0

Total
1
0
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	1	0	1
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	0	1	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6056	0.00 - 0.32	Northbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6056	0.00 - 0.32	Northbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6057	0.00 - 0.27	Eastbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6057	0.00 - 0.27	Eastbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6057	0.00 - 0.27	Eastbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6057	0.00 - 0.27	Eastbound

Summary	
	# of Accs.
Total Accidents	3
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	3
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	3
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	33.33
Wet	2	66.67
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	3	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	2	66.67
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	1	33.33
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	3	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	3	0	0
Total	0	3	0	0

Total
0
3
3

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	3	0	0	3
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	3	0	0	3

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6057	0.00 - 0.27	Eastbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6057	0.00 - 0.27	Eastbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	1
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	0	0.00
Wet	1	100.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	1	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	1	0	0
Total	0	1	0	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	1	0	0	1
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	1	0	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6057	0.00 - 0.27	Eastbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6057	0.00 - 0.27	Eastbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6058	0.00 - 0.33	Southbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6058	0.00 - 0.33	Southbound

Summary	
	# of Accs.
Total Accidents	2
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	2
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	2
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	0	0.00
Dawn	1	100.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	2	0	0
Total	0	2	0	0

Total
0
2
2

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	0	0	0
Rear-end	0	1	0	0	1
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	1	0	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6058	0.00 - 0.33	Southbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6058	0.00 - 0.33	Southbound

Summary	
	# of Accs.
Total Accidents	2
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	2
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	2
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	2	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	1	50.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	1	50.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	2	0	0
Total	0	2	0	0

Total
0
2
2

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision - between two vehicles in transport	0	0	0	0	0
Rear-end	0	1	0	0	1
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	1	0	0	1
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	2	0	0	2

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6058	0.00 - 0.33	Southbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6058	0.00 - 0.33	Southbound

Summary	
	# of Accs.
Total Accidents	2
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	2
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	1
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	2	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	0	0.00
Dawn	0	0.00
Dusk	1	50.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	1	50.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	1	1	0
Total	0	1	1	0

Total
0
2
2

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	1	0	1
Rear-end	0	1	0	0	1
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	1	1	0	2

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6058	0.00 - 0.33	Southbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6058	0.00 - 0.33	Southbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	1
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	0	0.00
Wet	1	100.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	0	0.00
Dawn	0	0.00
Dusk	1	100.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	1	0	0
Total	0	1	0	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	1	0	0	1
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	1	0	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6059	0.00 - 0.36	Northbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6059	0.00 - 0.36	Northbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	1
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	0	0.00
Wet	1	100.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	0	0.00
Down	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	1	100.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	1	0	0
Total	0	1	0	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	0	0	0
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	1	0	0	1
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	1	0	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6059	0.00 - 0.38	Northbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6059	0.00 - 0.38	Northbound

Summary	
	# of Accs.
Total Accidents	8
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	8
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	8
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	8	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	8	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	7	87.50
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	1	12.50
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	8	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	8	0	0
Total	0	8	0	0

Total
0
8
8

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	0	0	0
Rear-end	0	6	0	0	6
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	2	0	0	2
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	8	0	0	8

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6059	0.00 - 0.38	Northbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6059	0.00 - 0.38	Northbound

Summary	
	# of Accs.
Total Accidents	11
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	9
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	8
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	9	81.82
Wet	1	9.09
Snow	1	9.09
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	11	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	9	81.82
Dawn	0	0.00
Dusk	1	9.09
Dark - lighted roadway	1	9.09
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	11	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	6	3	0
Total	0	6	3	0

Total	0
	9
	9

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	2	1	0	3
Rear-end	0	5	2	0	7
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	1	0	0	1
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	8	3	0	11

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6059	0.00 - 0.38	Northbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6059	0.00 - 0.38	Northbound

Summary	
	# of Accs.
Total Accidents	4
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	4
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	4
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	4	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	4	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	2	50.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	1	25.00
Dark - roadway not lighted	1	25.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	4	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	4	0	0
Total	0	4	0	0

Total
0
4
4

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	0	0	0
Rear-end	0	3	0	0	3
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	1	0	0	1
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	4	0	0	4

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6064	0.00 - 0.35	Northbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6064	0.00 - 0.35	Northbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	0
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	1	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	0	1	0
Total	0	0	1	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	1	0	1
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	0	1	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6064	0.00 - 0.35	Northbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6064	0.00 - 0.35	Northbound

Summary	
	# of Accs.
Total Accidents	11
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	11
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	7
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	10	90.91
Wet	1	9.09
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, cl, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	11	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	6	54.55
Dawn	0	0.00
Dusk	1	9.09
Dark - lighted roadway	2	18.18
Dark - roadway not lighted	2	18.18
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	11	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	7	4	0
Total	0	7	4	0

Total
0
11
11

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	1	1	0	2
Rear-end	0	5	3	0	8
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	1	0	0	1
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	7	4	0	11

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6064	0.00 - 0.35	Northbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6064	0.00 - 0.35	Northbound

Summary	
	# of Accs.
Total Accidents	8
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	8
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	6
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	7	87.50
Wet	1	12.50
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	8	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	6	75.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	1	12.50
Dark - roadway not lighted	1	12.50
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	8	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	6	2	0
Total	0	6	2	0

Total
0
8
8

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	1	0	0	1
Rear-end	0	4	2	0	6
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	1	0	0	1
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	6	2	0	8

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6064	0.00 - 0.35	Northbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6064	0.00 - 0.35	Northbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	1
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	1	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	1	0	0
Total	0	1	0	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	0	0	0
Rear-end	0	1	0	0	1
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	1	0	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2006	New Castle	6401	0.00 - 0.10	Northbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2006	New Castle	6401	0.00 - 0.10	Northbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6401	0.00 - 0.10	Northbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6401	0.00 - 0.10	Northbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6401	0.00 - 0.10	Northbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6401	0.00 - 0.10	Northbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	0
Total Motorcycle Accidents	1
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	1	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	0	1	0
Total	0	0	1	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision - between two vehicles in transport	0	0	0	0	0
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	1	0	1
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	0	1	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	5401	0.00 - 0.10	Northbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	5401	0.00 - 0.10	Northbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2006	New Castle	6402	0.00 - 0.17	Eastbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2006	New Castle	6402	0.00 - 0.17	Eastbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6402	0.00 - 0.17	Eastbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6402	0.00 - 0.17	Eastbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6402	0.00 - 0.17	Eastbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6402	0.00 - 0.17	Eastbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	1
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	0	0.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	1	100.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	1	0	0
Total	0	1	0	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	0	0	0
Rear-end	0	1	0	0	1
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	1	0	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6402	0.00 - 0.17	Eastbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6402	0.00 - 0.17	Eastbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2006	New Castle	6403	0.00 - 0.03	Southbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2006	New Castle	6403	0.00 - 0.03	Southbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6403	0.00 - 0.03	Southbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6403	0.00 - 0.03	Southbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6403	0.00 - 0.03	Southbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6403	0.00 - 0.03	Southbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6403	0.00 - 0.03	Southbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6403	0.00 - 0.03	Southbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6404	0.00 - 0.04	Westbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6404	0.00 - 0.04	Westbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6404	0.00 - 0.04	Westbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6404	0.00 - 0.04	Westbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6404	0.00 - 0.04	Westbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6404	0.00 - 0.04	Westbound

Summary	
	# of Accs.
Total Accidents	2
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	2
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	1
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	2	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	2	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	1	1	0
Total	0	1	1	0

Total
0
2
2

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	0	0	0
Rear-end	0	1	0	0	1
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	1	0	1
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	1	1	0	2

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	5404	0.00 - 0.04	Westbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	5404	0.00 - 0.04	Westbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6405	0.00 - 0.04	Westbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6405	0.00 - 0.04	Westbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	1
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	1	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	1	0	0
Total	0	1	0	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	0	0	0
Rear-end	0	1	0	0	1
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	1	0	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6405	0.00 - 0.04	Westbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6405	0.00 - 0.04	Westbound

Summary	
	# of Accs.
Total Accidents	3
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	3
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	3
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	3	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	3	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	3	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	3	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	3	0	0
Total	0	3	0	0

Total
0
3
3

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision - between two vehicles in transport	0	0	0	0	0
Rear-end	0	3	0	0	3
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	3	0	0	3

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6405	0.00 - 0.04	Westbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6405	0.00 - 0.04	Westbound

Summary	
	# of Accs.
Total Accidents	5
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	5
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	5
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	4	80.00
Wet	1	20.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	5	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	4	80.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	1	20.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	5	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	5	0	0
Total	0	5	0	0

Total
0
5
5

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	0	0	0
Rear-end	0	5	0	0	5
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	5	0	0	5

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	5405	0.00 - 0.04	Westbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	5405	0.00 - 0.04	Westbound

Summary	
	# of Accs.
Total Accidents	2
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	2
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	1
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	2	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	2	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	1	1	0
Total	0	1	1	0

Total
0
2
2

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision - between two vehicles in transport	0	0	0	0	0
Rear-end	0	1	1	0	2
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	1	1	0	2

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6406	0.00 - 0.24	Northbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6406	0.00 - 0.24	Northbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2006	New Castle	6406	0.00 - 0.24	Northbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2006	New Castle	6406	0.00 - 0.24	Northbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6406	0.00 - 0.24	Northbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6406	0.00 - 0.24	Northbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6406	0.00 - 0.24	Northbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6406	0.00 - 0.24	Northbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6409	0.00 - 0.72	Southbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6409	0.00 - 0.72	Southbound

Summary	
	# of Accs.
Total Accidents	4
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	4
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	4
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	50.00
Wet	1	50.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	2	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	4	0	0
Total	0	4	0	0

Total
0
4
4

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	0	0	0
Rear-end	0	1	0	0	1
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	1	0	0	1
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	2	0	0	2

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2006	New Castle	6409	0.00 - 0.72	Southbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2006	New Castle	6409	0.00 - 0.72	Southbound

Summary	
	# of Accs.
Total Accidents	17
Fatal Accidents	0
Total Alcohol-Related Accidents	1
Total Non Alcohol-Related Accidents	15
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	14
Total Motorcycle Accidents	1
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	12	70.59
Wet	5	29.41
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	17	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	10	58.82
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	2	11.76
Dark - roadway not lighted	5	29.41
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	17	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	1	0
Non-Alcohol Related	0	13	2	0
Total	0	13	3	0

Total
1
15
16

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision - between two vehicles in transport	0	1	2	0	3
Rear-end	0	9	1	0	10
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	4	0	0	4
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	14	3	0	17

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6409	0.00 - 0.72	Southbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6409	0.00 - 0.72	Southbound

Summary	
	# of Accs.
Total Accidents	11
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	10
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	11
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	6	54.55
Wet	4	36.36
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	1	9.09
Other	0	0.00
Unknown	0	0.00
Total	11	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	5	45.45
Dawn	0	0.00
Dusk	2	18.18
Dark - lighted roadway	1	9.09
Dark - roadway not lighted	3	27.27
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	11	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	10	0	0
Total	0	10	0	0

Total
0
10
10

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	2	0	0	2
Rear-end	0	4	0	0	4
Head-on	0	0	0	0	0
Rear-to-rear	0	1	0	0	1
Angle	0	0	0	0	0
Sideswipe - same direction	0	3	0	0	3
Sideswipe - opposite direction	0	1	0	0	1
Unknown	0	0	0	0	0
Total	0	11	0	0	11

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6409	0.00 - 0.72	Southbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6409	0.00 - 0.72	Southbound

Summary	
	# of Accs.
Total Accidents	2
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	2
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	2	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	0	0.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	1	50.00
Dark - roadway not lighted	1	50.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	1	0	0
Total	0	1	0	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	1	0	0	1
Rear-end	0	1	0	0	1
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	2	0	0	2

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6271	0.00 - 0.26	Northbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6271	0.00 - 0.26	Northbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6271	0.00 - 0.26	Northbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6271	0.00 - 0.26	Northbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	0
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	1	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	0	1	0
Total	0	0	1	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	0	0	0
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	1	0	1
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	0	1	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6271	0.00 - 0.26	Northbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6271	0.00 - 0.26	Northbound

Summary	
	# of Accs.
Total Accidents	7
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	6
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	6
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	7	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	7	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	5	71.43
Dawn	0	0.00
Dusk	1	14.29
Dark - lighted roadway	1	14.29
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	7	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	1	4	1	0
Total	1	4	1	0

Total
0
6
6

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	1	0	0	1
Rear-end	0	1	0	0	1
Head-on	0	1	0	0	1
Rear-to-rear	0	0	0	0	0
Angle	0	2	1	0	3
Sideswipe - same direction	1	0	0	0	1
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	1	5	1	0	7

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6271	0.00 - 0.26	Northbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6271	0.00 - 0.26	Northbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	1
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	0	0.00
Wet	1	100.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	0	0.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	1	100.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	1	0	0
Total	0	1	0	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision - between two vehicles in transport	0	0	0	0	0
Rear-end	0	1	0	0	1
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	1	0	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6274	0.00 - 0.04	Westbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6274	0.00 - 0.04	Westbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6274	0.00 - 0.04	Westbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6274	0.00 - 0.04	Westbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6274	0.00 - 0.04	Westbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6274	0.00 - 0.04	Westbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6274	0.00 - 0.04	Westbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6274	0.00 - 0.04	Westbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6277	0.00 - 0.37	Eastbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6277	0.00 - 0.37	Eastbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	1
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	0	0.00
Wet	1	100.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	1	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	1	0	0
Total	0	1	0	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	1	0	0	1
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	1	0	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6277	0.00 - 0.37	Eastbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6277	0.00 - 0.37	Eastbound

Summary	
	# of Accs.
Total Accidents	3
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	3
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	3
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	0	0.00
Wet	3	100.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	3	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	2	66.67
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	1	33.33
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	3	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	3	0	0
Total	0	3	0	0

Total
0
3
3

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	2	0	0	2
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	1	0	0	1
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	3	0	0	3

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6277	0.00 - 0.37	Eastbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6277	0.00 - 0.37	Eastbound

Summary	
	# of Accs.
Total Accidents	6
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	5
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	6
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	2	33.33
Wet	4	66.67
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	6	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	3	50.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	3	50.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	6	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	5	0	0
Total	0	5	0	0

Total
0
5
5

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	5	0	0	5
Rear-end	0	1	0	0	1
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	6	0	0	6

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6277	0.00 - 0.37	Eastbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6277	0.00 - 0.37	Eastbound

Summary	
	# of Accs.
Total Accidents	2
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	2
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	2
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	50.00
Wet	1	50.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	1	50.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	1	50.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	2	0	0
Total	0	2	0	0

Total	0
	2
	2

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	2	0	0	2
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	2	0	0	2

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6278	0.00 - 0.19	Southbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6278	0.00 - 0.19	Southbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2006	New Castle	6278	0.00 - 0.19	Southbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2006	New Castle	6278	0.00 - 0.19	Southbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	1
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	0	0.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	1	100.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	1	0	0
Total	0	1	0	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	1	0	0	1
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	1	0	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6278	0.00 - 0.19	Southbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6278	0.00 - 0.19	Southbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	0
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	1	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	0	1	0
Total	0	0	1	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	0	0	0
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	1	0	1
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	0	1	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6278	0.00 - 0.19	Southbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6278	0.00 - 0.19	Southbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6331	0.00 - 0.27	Northbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6331	0.00 - 0.27	Northbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6331	0.00 - 0.27	Northbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6331	0.00 - 0.27	Northbound

Summary	
	# of Accs.
Total Accidents	2
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	2
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	2
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	2	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	1	50.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	1	50.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	2	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	2	0	0
Total	0	2	0	0

Total
0
2
2

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision - between two vehicles in transport	0	0	0	0	0
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	1	0	0	1
Angle	0	0	0	0	0
Sideswipe - same direction	0	1	0	0	1
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	2	0	0	2

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6331	0.00 - 0.27	Northbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6331	0.00 - 0.27	Northbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	5331	0.00 - 0.27	Northbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	5331	0.00 - 0.27	Northbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	1
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	0	0.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	1	100.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	1	0	0
Total	0	1	0	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	0	0	0
Rear-end	0	1	0	0	1
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	1	0	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6332	0.00 - 0.30	Eastbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6332	0.00 - 0.30	Eastbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6332	0.00 - 0.30	Eastbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6332	0.00 - 0.30	Eastbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6332	0.00 - 0.30	Eastbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6332	0.00 - 0.30	Eastbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6332	0.00 - 0.30	Eastbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6332	0.00 - 0.30	Eastbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6337	0.00 - 0.26	Eastbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6337	0.00 - 0.26	Eastbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	0
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	1	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	0	1	0
Total	0	0	1	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	1	0	1
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	0	1	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6337	0.00 - 0.26	Eastbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6337	0.00 - 0.26	Eastbound

Summary	
	# of Accs.
Total Accidents	3
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	3
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	2
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	0	0.00
Wet	3	100.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	3	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	2	66.67
Dawn	0	0.00
Dusk	1	33.33
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	3	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	2	1	0
Total	0	2	1	0

Total
0
3
3

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	2	1	0	3
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	2	1	0	3

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6337	0.00 - 0.26	Eastbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6337	0.00 - 0.26	Eastbound

Summary	
	# of Accs.
Total Accidents	4
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	4
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	2
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	25.00
Wet	3	75.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	4	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	3	75.00
Dawn	0	0.00
Dusk	1	25.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	4	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	2	2	0
Total	0	2	2	0

Total
0
4
4

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	2	2	0	4
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	0	0	0	0
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	2	2	0	4

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6337	0.00 - 0.26	Eastbound

01/01/2008 - 05/01/2008

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6337	0.00 - 0.26	Eastbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6338	0.00 - 0.28	Southbound

05/01/2005 - 12/31/2005

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6338	0.00 - 0.28	Southbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2006	New Castle	6338	0.00 - 0.28	Southbound

01/01/2006 - 12/31/2006

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2006	New Castle	6338	0.00 - 0.28	Southbound

No accidents found.

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6338	0.00 - 0.28	Southbound

01/01/2007 - 12/31/2007

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6338	0.00 - 0.28	Southbound

Summary	
	# of Accs.
Total Accidents	1
Fatal Accidents	0
Total Alcohol-Related Accidents	0
Total Non Alcohol-Related Accidents	1
Total Fatalities	0
Total Pedestrian Fatalities	0
Total Pedestrian Injuries	0
Total Pedestrian Accidents	0
Total Property Damage Accidents	1
Total Motorcycle Accidents	0
Total Pedalcyclist Accidents	0

Surface Conditions		
	# of Accs.	% of Total Accs.
Dry	1	100.00
Wet	0	0.00
Snow	0	0.00
Ice	0	0.00
Sand, mud, dirt, oil, gravel	0	0.00
Water (standing, moving)	0	0.00
Slush	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Lighting Conditions		
	# of Accs.	% of Total Accs.
Daylight	1	100.00
Dawn	0	0.00
Dusk	0	0.00
Dark - lighted roadway	0	0.00
Dark - roadway not lighted	0	0.00
Dark - unknown roadway lighting	0	0.00
Other	0	0.00
Unknown	0	0.00
Total	1	100.00

Alcohol Related Accidents By Classification				
	Non-Reportable	Reportable	Personal Injury	Fatality
Alcohol Related	0	0	0	0
Non-Alcohol Related	0	1	0	0
Total	0	1	0	0

Total
0
1
1

Manner Of Impact By Classification					
	Non-Reportable	Reportable	Personal Injury	Fatality	Total
Not collision between two vehicles in transport	0	0	0	0	0
Rear-end	0	0	0	0	0
Head-on	0	0	0	0	0
Rear-to-rear	0	0	0	0	0
Angle	0	0	0	0	0
Sideswipe - same direction	0	1	0	0	1
Sideswipe - opposite direction	0	0	0	0	0
Unknown	0	0	0	0	0
Total	0	1	0	0	1

State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6338	0.00 - 0.28	Southbound

01/01/2008 - 05/01/2008

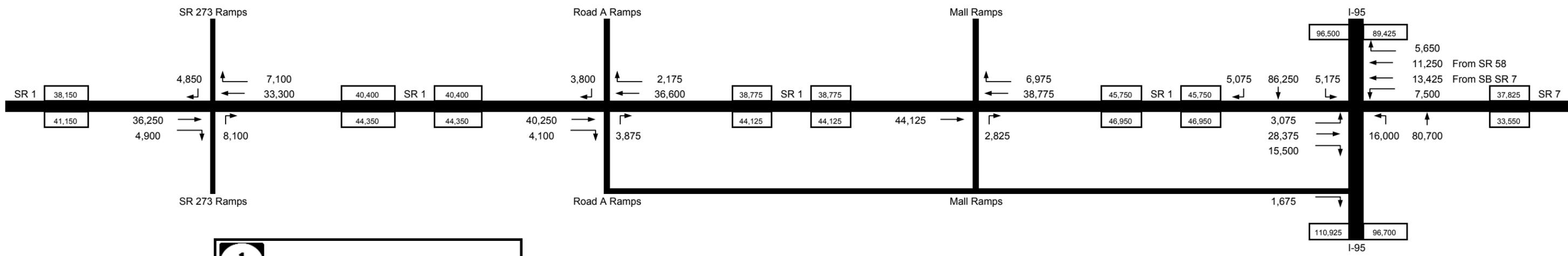
State of Delaware Accident Study

Study Period	County	Road	Milepoint	Direction
05/01/2005 - 05/01/2008	New Castle	6338	0.00 - 0.28	Southbound

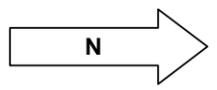
No accidents found.

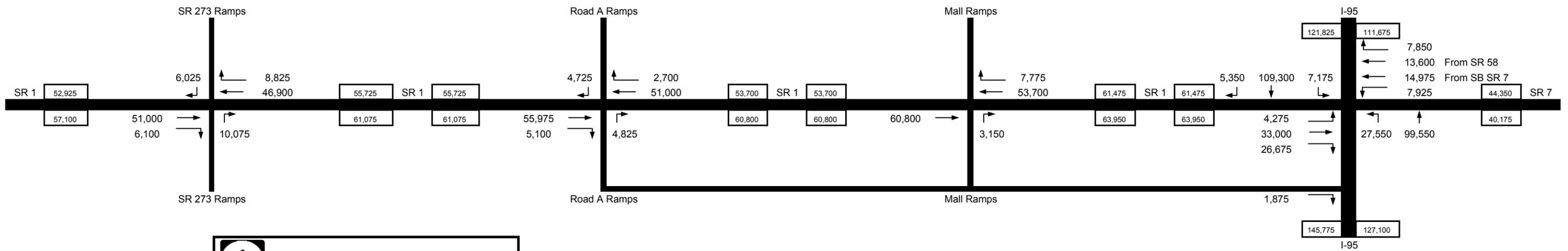
Appendix C

Average Daily Traffic (ADT) Volumes

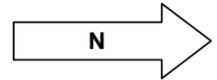


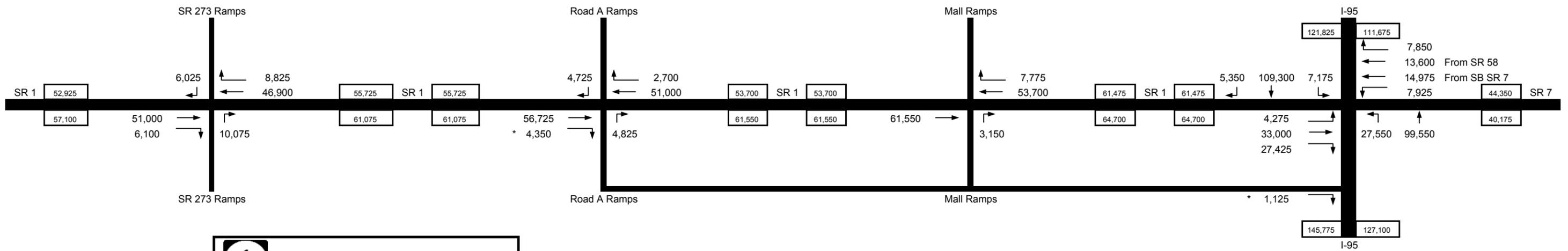
1 SR 1 Traffic Volume Network	
New Castle County, DE	
Conditions: Existing	Year: 2008
Average Daily Traffic (ADT)	RK&K Engineers December 2008





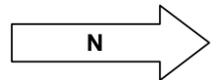
1 SR 1 Traffic Volume Network	
New Castle County, DE	
Conditions: No-Build	Year: 2030
Average Daily Traffic (ADT)	RK&K Engineers December 2008

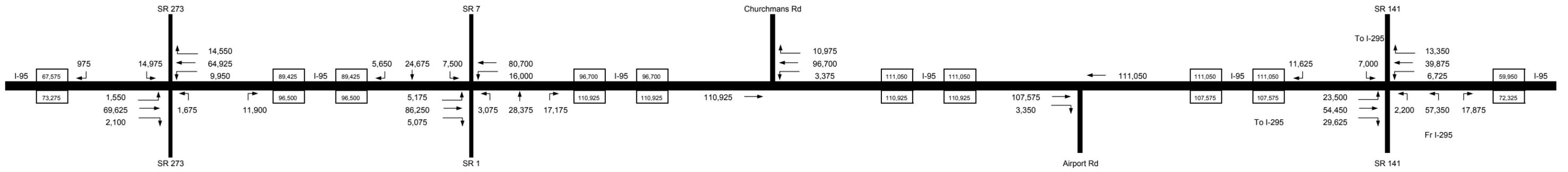




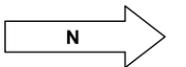
1 SR 1 Traffic Volume Network	
New Castle County, DE	
Conditions: Build	Year: 2030
Average Daily Traffic (ADT)	RK&K Engineers December 2008

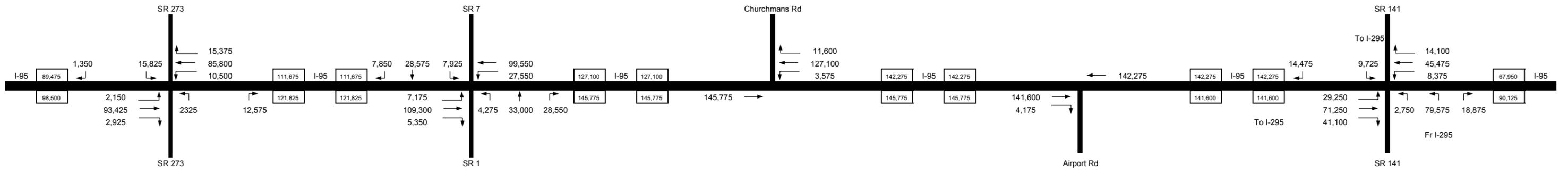
* Note: Build ADT is less than existing ADT because vehicles currently use these ramps as a cut-through in the AM peak hour due to existing congestion. Under the Build scenario, all non-mall traffic will use the ramp from SR 1 NB to I-95 NB.



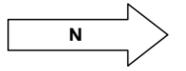


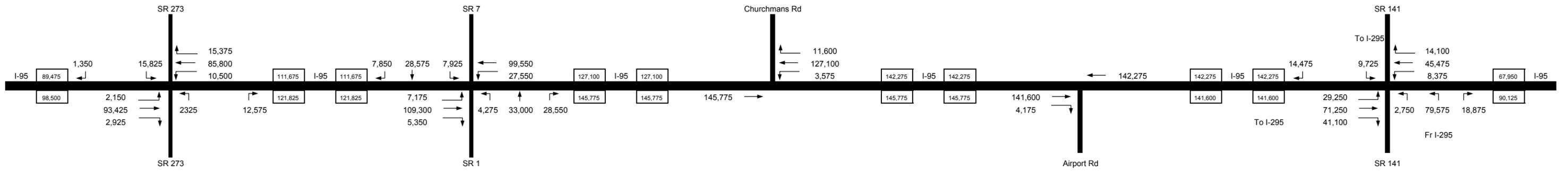
 I-95 Traffic Volume Network	
New Castle County, DE	
Conditions: Existing	Year: 2008
Average Daily Traffic (ADT)	 RK&K Engineers December 2008





 I-95 Traffic Volume Network	
New Castle County, DE	
Conditions: No-Build	Year: 2030
Average Daily Traffic (ADT)	 RK&K Engineers December 2008





 I-95 Traffic Volume Network	
New Castle County, DE	
Conditions: Build	Year: 2030
Average Daily Traffic (ADT)	 RK&K Engineers December 2008

Note: Build ADTs are same as No-Build along I-95 corridor.



Appendix D



HCS and Synchro Files

Appendix E



Response to FHWA Comments

Note:

FHWA comments on Draft submittal received November 25, 2008 at IJR review meeting
Responses in italics

1. Traffic volumes were projected to increase at 1.25% per year and as a result the following movements are projected to operate at a LOS F prior to the design year of 2030.
 - a) The merge from SR1 northbound to I-95 in 2026.
 - b) Ramp B will reach capacity in 2023.
 - c) I-95 north of the interchange in 2025.
 - d) The merge from SR1 southbound to I-95 southbound in 2029.
 - e) Ramp A is projected to exceed single-lane capacity in 2023.
 - f) The merge from ramp A to SR 1 is projected to operate at a LOS F but it is not clear when this will occur.

DeIDOT acknowledges that the SR 1 interchange improvements are not the ultimate solution in this area. A C-D Road system will be required to achieve acceptable LOS in the future. However, the interchange project is an important project with overwhelming public support that will result in a significant improvement over existing conditions for many years. Discussion has been added to the report regarding this topic in Section IV-D. Regarding item f), the merge would fail due to Ramp A exceeding capacity. Therefore, the merge is projected to fail at the same time, 2023.

2. If actual the traffic growth rate is higher than expected then the above segments will fail at a much earlier date.

The project team performed a sensitivity analysis, which has been added to the report in Section IV-D.

3. We should get a better explanation of what the "Peninsula model" is and how was it used to determine projected traffic volumes..

Additional discussion of the Peninsula model has been added to the report in Section IV-C.

4. Should you consider building a wider substructure for ramp B to allow for future widening?
Ramp B is constrained by Churchman's Bridge, and therefore cannot be widened in the future.

5. There is discussion about crash data but they did not make it clear how this project would improve safety. Also, they should search on "accident" and replace it with "crash".

A new section of text has been added to Section III of the report to address potential safety improvements. All references to "accidents" have been changed to "crash."

6. In the crash data discussion it would be beneficial to provide a diagram showing the ramps discussed along with their number.

A new figure (Figure 7) has been added to the report showing the ramp numbers.

7. On ramp A it is proposed to have a 14' left shoulder and a 4' wide right shoulder. Is this acceptable?

The plans actually call for a 12-foot left shoulder and a 6-foot right shoulder. The wide left shoulder is proposed to improve sight distance around curves. This type of design was also used on the ramp from westbound I-495 to southbound I-95 at the Springfield Interchange in Virginia. This condition has been discussed with FHWA at various meetings throughout the design process. The following excerpts from the AASHTO Green Book explain the guidance followed while developing the design:

- *“Ramps should have a lateral clearance on the right outside the edge of the traveled way of at least 1.8 m [6 ft]” (page 840)*
- *“Some turning roadways, particularly ramps, pass over drainage structures, pass over or under other roadways, or pass adjacent to walls or rock cuts on one or both sides. For such locations, the minimum clearances for structures, as established in later chapters and in the current edition of the AASHTO bridge specifications, apply directly. In addition, the design should be evaluated for adequate sight distance, as the sharp curve may need above-minimum lateral clearance.” (page 223)*
- *“Where sufficient stopping sight distance is not available because a railing or a longitudinal barrier constitutes a sight obstruction, alternative designs should be considered for both safety and economic reasons. The alternatives are: (1) increase the offset to the obstruction, (2) increase the radius, or (3) reduce the design speed. However, the alternative selected should not incorporate shoulder widths on the inside of the curve in excess of 3.6 m [12 ft] because of the concern that drivers will use wider shoulders as a passing or travel lane.” (page 228)*

8. On page 6 it states that the project team developed 5 options. All options should be discussed. *Text has been added to the report to discuss the options.*

9. On page 7 bullet #2 should be deleted.

CORSIM files submitted to FHWA (Pat Kennedy) on December 2, 2008 via email.

10. On page 7 it states that there are 3 design exceptions but only 2 are discussed.

Report text has been modified to clarify design exceptions.

11. ADT's are provided in appendix C. What were the K and D factors used to derive the design hour volumes?

For I-95, the K-factor was 7% and the D-factor was 54%. For SR 1, the K-factor was 7.5% and the D-factor was 59%. These values have been added to the report text in Section IV-C.

12. In figures 17 and 20 the letter P issued to show a passing level of service. The actual level of service should be provided.

The analysis of merge and diverge areas that result in a lane drop or lane addition was performed based on the following comment received from Robert Schlicht (FHWA HQ) in February 2005 following our previous IJR submittal:

“For the HCM analysis, the areas where ramp junctions are associated with lane additions or lane drops are always difficult to analyze. The consultant correctly avoids use of the normal ramp analysis procedures because they don't apply when through lanes are added or dropped at ramp junctions. But they should have more fully analyzed these areas using the procedures in the 2000 HCM page 25-9 (on ramps) and 25-16 (off ramps). Basically, these procedures suggest analysis of all entering and departing roadways. For example, where Ramp B joins I-95 NB they should have analyzed the ramp upstream of the merge, I-95 upstream of the merge, and I-95 downstream of the merge.”

Based on this guidance, LOS grades were not assigned at locations resulting in a lane drop or lane addition. Instead, upstream capacity, downstream capacity, and ramp capacity were checked. If any of the segments were over capacity, this represented failing (LOS F) conditions. If all three segments were under capacity, a “passing”(P) grade was assigned to the location.

13. Include the origin/destination data to support the implementation of a left hand entrance on I-95.

The origin-destination study results have been added to the report text as Section II-D.

14. On figure 20 include the LOS for the right hand SR 1 NB/I-95 merge.

The LOS is shown in the figure in the bubble above I-95.

15. The capacity of I-95 mainline southbound should be discussed. At the Churchmans road exit a diverge analysis is performed utilizing upstream and exiting volumes. Is this realistic since most of the traffic in the right lane will be either Churchmans Rd or SR 1. Also with the projected volumes on I-95, the LOS will be F so how will this impact the operations of the ramps.

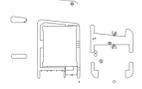
For the first part of this comment, refer to the response to Comment #16 below. For the second part of this comment, the project team was asked during the IJR review meeting to analyze potential improvements along I-95 southbound, south of SR 1, because this segment is projected to operate at LOS F during the PM peak hour in the design year of 2030. Specifically, the team was asked to determine if the LOS could be improved by extending the existing acceleration lane from the SR 1/7 ramp. The results of the analysis indicate that the failing condition is a result of mainline capacity constraints, and therefore the LOS would not be improved by extending the acceleration lane. As discussed in the response to comment #1, the operations at this location will be improved by the long-range C-D Roads concept.

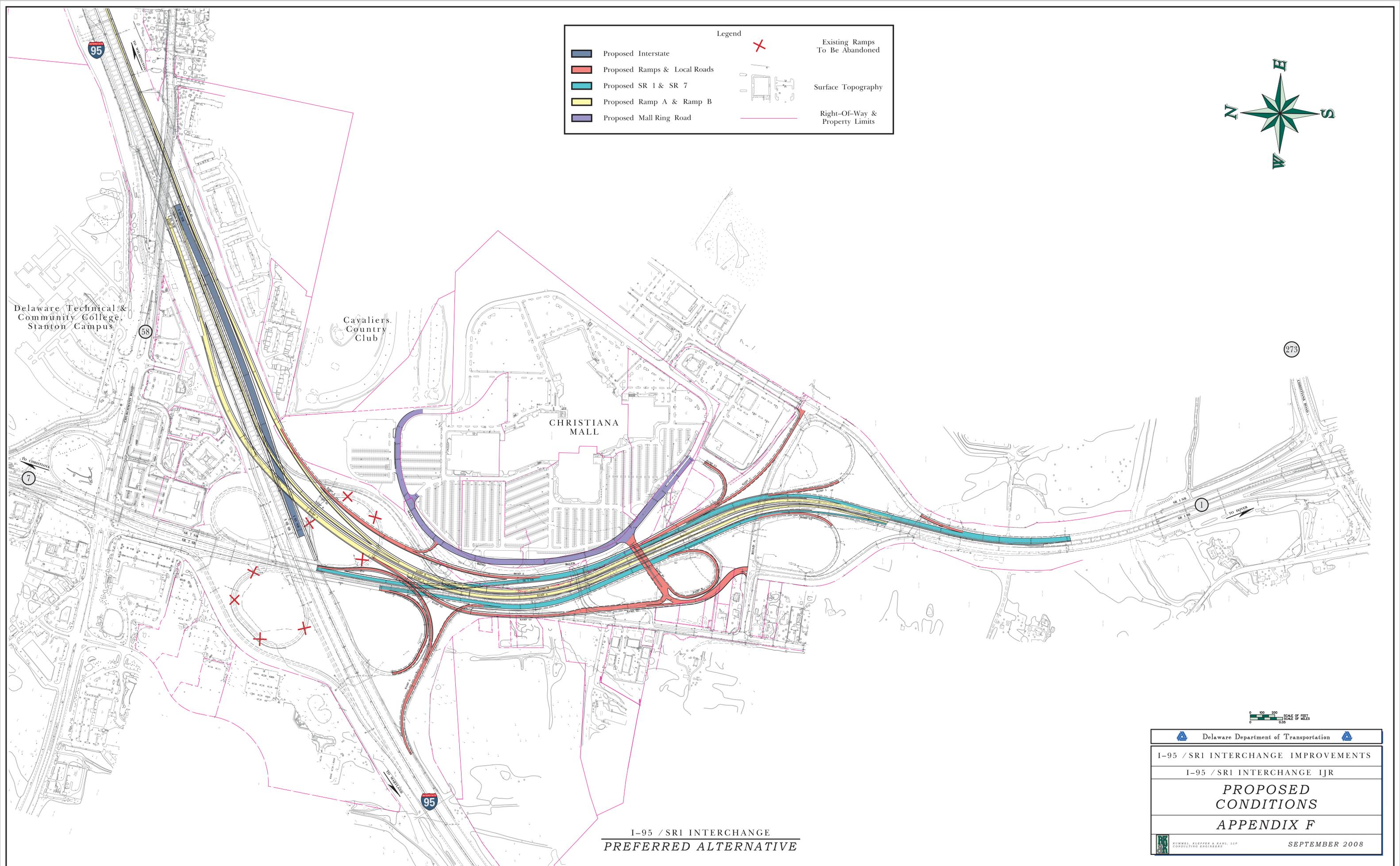
16. No HCS analysis of the I-95/SR 1 diverge was provided but a LOS was shown. Discuss how the lane drop is being analyzed.
Per discussion at the meeting, this comment refers to the diverge from southbound I-95 to Ramp A. At this location, there is a two-lane ramp that results in a lane drop (from five freeway lanes to four). Therefore, analysis was limited to a capacity check of the upstream freeway segment, the downstream freeway segment, and the ramp. Please refer to the response to comment #12 for more detail.
17. What locations were used to establish the 2008 volumes? In Section A on page 11, it states that counts were taken at “select locations”.
A list of count locations has been added to the report text.
18. Page 2, Historical Traffic Growth Section discusses the growth amounts in the past years. It also states that between 2000 and 2008, there has been little growth that primarily indicated the saturated conditions. In looking at the growth rates when there are conditions that would allow for additional traffic, is it accurate that no build and build traffic volumes are equal?
The No-Build condition includes the capacity improvement of widening I-95 to five lanes. The Build condition includes only the interchange improvements, which are primarily operational improvements. Therefore, the Build and No-Build forecasts are the same. Additional discussion of Build versus No-Build forecasts has been added to the report in Section IV-C.
19. If the saturated condition, mentioned in comment 18, is affected the traffic volumes, what leads to the no-build and build volumes being the same?
See response to comment #18.
20. Page 13, mentions no parallel facility. What are the alternate routes?
This comment is related to the environmental document.
21. What are the truck volumes current and projected for this area?
Truck traffic along I-95 currently comprises approximately 15% of the daily traffic volume and 9% of the peak hour traffic volume through the study area, based on recent classified traffic count data. The traffic forecasts for this report assume that truck traffic will increase at the same rate as auto traffic, (i.e., at a rate of 1.25% per year on I-95 and 2.5% per year on Ramp A and Ramp B). This equates to a 31% increase in truck traffic on I-95 between 2008 and 2030, and a 72% increase in truck traffic on Ramp A and Ramp B during the same time period. WILMAPCO’s 2030 Regional Transportation Plan, dated March 22, 2007, indicates that truck trips in the region are projected to increase by 90% by the year 2030. However, WILMAPCO cannot determine at this time the impacts of this truck growth on specific roadways such as I-95 and SR 1. WILMAPCO is currently working with the DeIDOT Division of Planning to develop a truck-specific regional forecasting model to better answer this question on future projects, however, information is not yet available from this effort. WILMAPCO believes that, given the forecasting tools currently available, it is reasonable to assume that truck traffic will increase at the same rate as auto traffic on I-95 and SR 1.

Appendix F

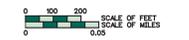
Plot of Preferred Alternative

Legend

-  Proposed Interstate
-  Proposed Ramps & Local Roads
-  Proposed SR 1 & SR 7
-  Proposed Ramp A & Ramp B
-  Proposed Mall Ring Road
-  Existing Ramps To Be Abandoned
-  Surface Topography
-  Right-Of-Way & Property Limits



I-95 / SRI INTERCHANGE
PREFERRED ALTERNATIVE



Delaware Department of Transportation

I-95 / SRI INTERCHANGE IMPROVEMENTS
 I-95 / SRI INTERCHANGE IJR

**PROPOSED
 CONDITIONS**

APPENDIX F

SEWELL, KLEPPER & KAWL, LLP
 CONSULTING ENGINEERS

SEPTEMBER 2008

