

## I. PROJECT PURPOSE AND NEED

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*SR 1, Little Heaven Grade Separated Intersection Project  
Environmental Assessment / Section 4(f) Evaluation*



U.S. Department of Transportation  
Federal Highway Administration



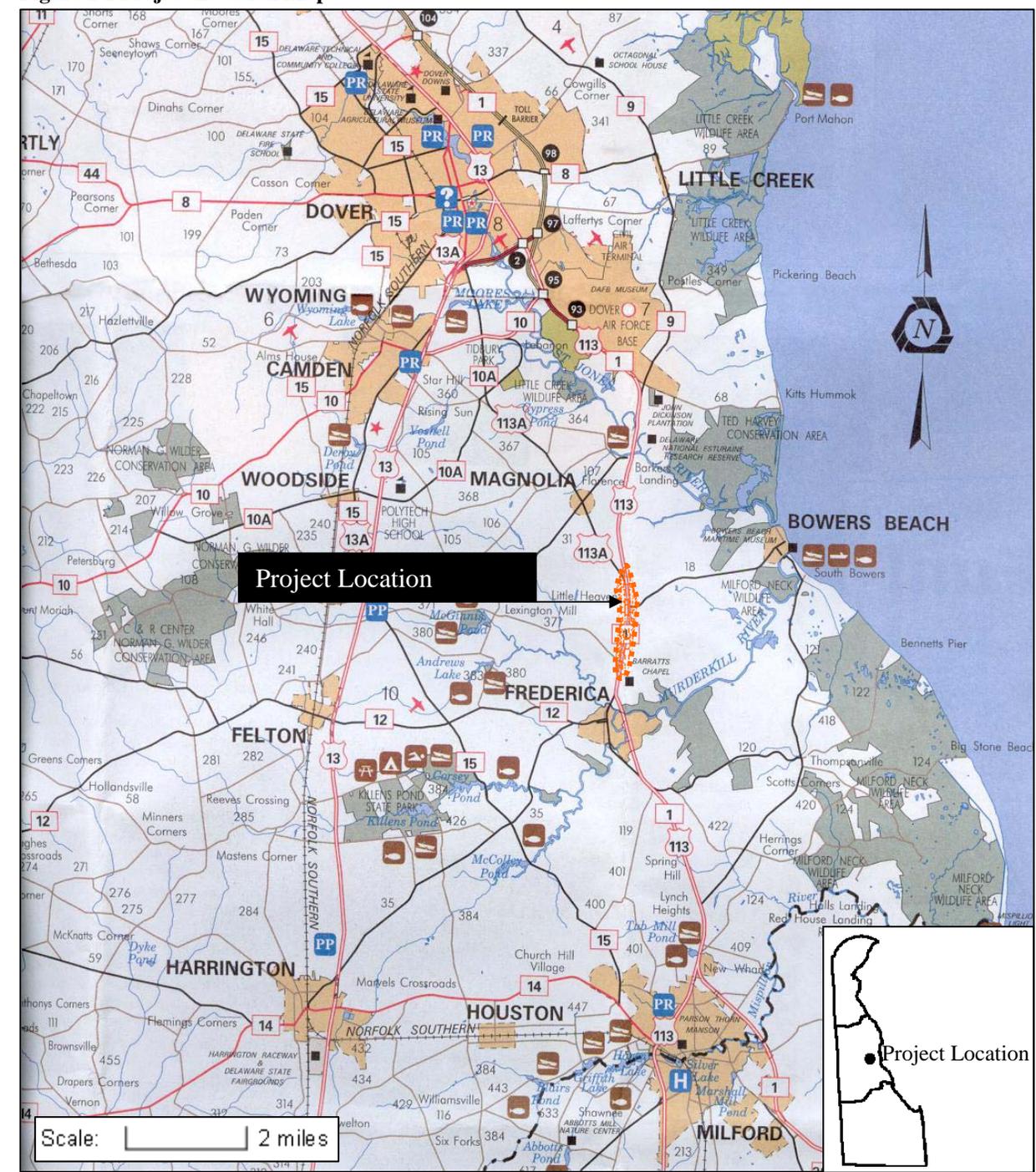
Delaware Department of Transportation

## I. PROJECT PURPOSE AND NEED

### A. Project Location

The location of the SR 1, Little Heaven Grade Separated Intersection Project, is approximately 8.5 miles south of Dover in the Little Heaven area of Kent County Delaware as shown on **Figure I-1**. The project area is approximately 659 acres in size and extends 2.76 miles along SR 1 from south of Barratt's Chapel Road to north of Mulberrie Point Road as shown on **Figure I-2**. This area was determined based on the immediate impacts from the alternatives and adjacent areas that may be involved with the project.

**Figure I-1 Project Location Map**

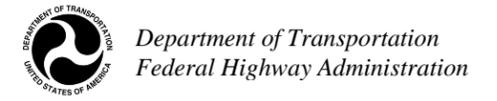
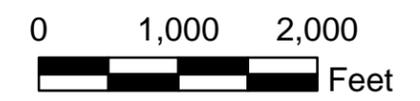


SR 1, Little Heaven  
Grade Separated Intersection  
Environmental Assessment



 Project Area

Figure I-2  
Project Area Map



## **B. Project Purpose**

The *purpose* of the project is to improve traffic safety and relieve traffic congestion along SR 1 and at its at-grade roadway crossings while providing access to existing and planned developments while avoiding or minimizing adverse effects to the socio-economic, cultural and natural environmental resources within the project area. The project purpose is consistent with the SR 1 Corridor Capacity Preservation Program's (CCPP) four main goals, as follows:

1. Maintain the road's ability to handle traffic efficiently and safely.
2. Minimize the transportation impacts of increased economic growth.
3. Preserve the ability to make future transportation-related improvements, as needed.
4. Prevent the need to build an entirely new road.

SR 1 is a major north-south arterial highway consisting. It is classified under the Federal Functional Highway Classification as an "Urban Freeway/Expressway" to the north of Dover Air Force Base, where it is a four-lane divided limited access freeway. To the south of Dover Air Force Base SR 1 is a four-lane divided arterial highway with uncontrolled access and at-grade intersections. The project area is in the portion with uncontrolled access and at-grade intersections.

## **C. Project Need**

The purpose of the SR 1, Little Heaven Grade Separated Intersection Project is supported by the project *needs* listed below and further described in subsequent sections:

1. Traffic Safety
2. Preserve Roadway Capacity for Current and Future Traffic

### **1. Traffic Safety**

Growth in travel to and from the Delaware Beach resort areas, in addition to year-round growth in residential and commercial traffic in eastern Sussex County and central Kent County have contributed to increased traffic congestion and accidents along SR 1. The current four-lane divided roadway typical section of SR 1 is of sub-standard design for a Principal Arterial and Freeway/Expressway highway classification. It does not have any access controls, despite serving as a major throughway and it does not adequately separate through traffic from local traffic or provide efficient traffic operations.

There are seven roadway intersections and numerous private entrances along SR 1 within the 2.76 mile length of the project (**Figure I-2**). Many of these private entrances are unimproved driveways that have poorly defined entrance and exit points fronting SR 1 as shown on **Figure I-3**. Lack of acceleration/deceleration lanes from side streets and driveways and lack of uniform spacing between median breaks and intersections also contribute to safety and capacity problems along SR 1. Uncontrolled access also limits capacity of the roadway due to vehicles turning from side streets which slows through traffic.

The through lanes and shoulders are of substandard width and the right and left turn lanes are of substandard lengths and widths and do not allow sufficient deceleration from through lanes. Some intersections enter SR 1 at skewed angles and have poor turning radii which are difficult for large vehicles to navigate and have inadequate sight distances. Drainage is marginal but can be improved to address flooding of side streets during heavy rainfall.

**Figure I-3: Examples of Uncontrolled Access along SR 1 in the Little Heaven Area**



Over the three year period from 2005 through 2007 a total of 75 accidents were reported in the 2.76-mile segment of SR 1 in the project area. The number of accidents over the three year period from 2005 to 2007 is shown in **Table I-1** at various locations in the project area. The SR 1/Clapham Road intersection within the limits of the SR 1, Little Heaven Grade Separated Intersection project, was one of ten locations identified for grade separated intersection improvements under the Delaware Department of Transportation (DelDOT) SR 1 Corridor Capacity Preservation Program (CCPP) that encompassed the 31-mile stretch of SR 1/US 113 corridor extending from the Dover Air Force Base (DAFB) in the north to Nassau in the south. More information about the CCPP can be obtained by visiting:

[http://www.deldot.gov/information/pubs\\_forms/brochures/pdf/ccpp\\_fyi.pdf](http://www.deldot.gov/information/pubs_forms/brochures/pdf/ccpp_fyi.pdf)

Accident rates in the study area exceed state and county averages for similar type roadways. The signalized SR 1/K 18 (Bower's Beach Road) intersection within the project limits was identified as a Hazardous Spot Location. Hazardous Spot Locations are designated by DelDOT as intersections with a minimum of 18 accidents during a three-year period.

**Table I-1: SR 1 Accident Data**

Location	Year 2005	Year 2006	Year 2007	3-Year Total
Barratt's Chapel Road (K273) M.P. 7.90-8.64 NB; 1.63 - 2.50 SB	4	6	7	17
S. Skeeter Neck Road (K372) M.P. 8.64-9.2 NB; 1.08-1.63 SB	5	0	3	8
Bower's Beach Road (K18) M.P. 9.2 -9.84 NB; 0.43-1.08 SB	13	11	6	30
Clapham Road (K27) M.P. 9.84-10.09 NB; 0.1-0.43 SB	5	0	2	7
N. Skeeter Neck Road (K372) M.P. 10.09-10.20 NB	1	0	1	2
Mulberrie Point Road (K373) M.P. 10.20-10.78 NB; 0.0-0.1 SB	4	5	2	11
<b>Total:</b>	32	22	21	75

## 2. Preserve Roadway Capacity for Current and Future Traffic

SR 1 serves as the primary north-south highway to access the Delaware beach resort areas. Increase in population (especially retired individuals), tourism and development in Delaware has led to increased traffic volumes and congestion on SR 1 and intersecting roadways within the project area. Eastern Sussex County and central Kent County have continued to experience high rates of growth in year-round residential and commercial traffic due to new development that has subsequently led to increased traffic congestion. Traffic along SR 1 is expected to continue to increase in the future. As shown in **Table I-2**, from the years 1990 to 2030 traffic volumes are expected to increase on SR 1 and intersecting roadways.

**Table I-2: SR 1, Little Heaven Grade Separated Intersection: AADT for Existing Roadways**

		Roadways							
		Clapham Road	Buffalo Road	Mulberrie Point Road		Skeeter Neck Road		Bower's Beach Road	Barratt's Chapel Road
Segment	From:	US113/SR1	West Project Limits	East Project Limits	US113/SR1	US113/SR1 (South)	Bower's Beach Road	East Project Limits	West Project Limits
	To:	North Project Limits	Clapham Road	US113/SR1	Clapham Road	Bower's Beach Road	US113/SR1 (North)	SR1/US113	SR1/US113
Year	1990	5,542	119	382	285	148	488	2,918	426
	1995	6,681	151	281	361	187	358	2,143	539
	2000	4,549	259	149	729	181	210	1,232	1,018
	2007	5,199	756	209	1,149	173	220	1,280	1,872
	2010	5,900	723	209	194	172	220	1,314	1,920
	2015	14,978	2,971	342	2009	232	254	2,913	9,050
	2020	16,679	3,043	350	2,173	247	270	3,201	9,561
	2025	18,375	3,111	358	2336	262	289	3,494	10,071
2030	20,066	3,169	366	2500	277	336	3,786	10,582	

**Note:** 1. 2007 AADT is the base for the 2010, 2015, 2020, 2025 and 2030 AADT projections.  
 2. 2015, 2020, 2025 and 2030 AADT include projected ADT from proposed and committed developments.

With the increase in vehicles per day there is also an increase in traffic congestion. **Tables I-3** through **I-9** show the intersection levels-of-service and delay times for six intersections in the project area during the A.M., Mid-Day and P.M. traffic peak hours periods for the average yearly and summer seasonal periods for the years 2001 and 2007 and projection for the years 2010, 2015, 2020 and the design 2025. It is important to take into account summer peak hours because the beach resorts along the Delaware coast are major seasonal traffic generators for tourism during the summer months. The seven intersections in the project area are listed below in order from the northernmost to the southernmost. The locations of these intersections are shown on the project area map on **Figure I-2**.

1. SR 1 and Mulberrie Point Road (See **Table I-3**)
2. Clapham Road and Mulberrie Point Road (See **Table I-4**)
3. SR 1 and Clapham Road (See **Table I-5**)
4. SR 1 and North Skeeter Neck Road (See **Table I-6**)
5. SR 1 and Bower's Beach Road (See **Table I-7**)
6. SR 1 and South Skeeter Neck Road (See **Table I-8**)
7. SR 1 and Barratt's Chapel Road/Entrance to Barratt's Chapel (See **Table I-9**)

**Table I-3: Weekday Peak Hour LOS for  
 SR 1 at Mulberrie Point Road Intersection (Two-Way Stop-Controlled Intersection)**

Yearly Conditions	Level of Service (Delay in seconds)		Yearly Conditions	Level of Service (Delay in seconds)	
	A.M. Peak	P.M. Peak		A.M. Peak	P.M. Peak
<b>2007 Average Peak Traffic</b>			<b>2020 Average Peak Traffic</b>		
NB Left	A (9.8)	C (18.7)	NB Left	B (13.1)	F (79.2)
SB Left	C (19.2)	B (11.6)	SB Left	E (39.3)	C (16.4)
EB Left/Through/Right	F (101.1)	E (38.8)	EB Left/Through/Right	F (*)	F (*)
WB Left/Through/Right	D (27.2)	B (11.5)	WB Left/Through/Right	F (1037.0)	F (*)
<b>2007 Summer Peak Traffic</b>			<b>2020 Summer Peak Traffic</b>		
NB Left	B (10.7)	C (23.9)	NB Left	C (15.1)	F (167.5)
SB Left	C (23.0)	B (13.5)	SB Left	F (61.3)	C (20.7)
EB Left/Through/Right	F (1550.0)	F (869.2)	EB Left/Through/Right	F (*)	F (*)
WB Left/Through/Right	F (258.4)	F (130.5)	WB Left/Through/Right	F (2724)	F (*)
<b>2010 Average Peak Traffic</b>			<b>2025 Average Peak Traffic</b>		
NB Left	B (10.2)	C (18.7)	NB Left	B (13.7)	F (100.2)
SB Left	C (22.7)	B (12.3)	SB Left	E (45.9)	C (17.7)
EB Left/Through/Right	F (434.7)	B (12.1)	EB Left/Through/Right	F (*)	F (*)
WB Left/Through/Right	E (37.9)	F (54.9)	WB Left/Through/Right	F (1471.0)	F (*)
<b>2010 Summer Peak Traffic</b>			<b>2025 Summer Peak Traffic</b>		
NB Left	B (11.3)	D (31.1)	NB Left	C (16.2)	F (245.0)
SB Left	D (28.2)	B (14.6)	SB Left	F (75.6)	C (23.1)
EB Left/Through/Right	F (9197.0)	F (1590.0)	EB Left/Through/Right	F (*)	F (*)
WB Left/Through/Right	F (552.8)	F (427.8)	WB Left/Through/Right	F (3842.0)	F (*)
<b>2015 Average Peak Traffic</b>			<b>2030 Average Peak Traffic</b>		
NB Left	B (12.5)	F (64.7)	NB Left	B (14.5)	F (124.4)
SB Left	D (34.0)	C (15.2)	SB Left	F (53.6)	C (19.2)
EB Left/Through/Right	F (8469.0)	F (3127.0)	EB Left/Through/Right	F (*)	F (*)
WB Left/Through/Right	F (693.2)	F (7136.0)	WB Left/Through/Right	F (2098.0)	F (*)
<b>2015 Summer Peak Traffic</b>			<b>2030 Summer Peak Traffic</b>		
NB Left	B (14.2)	F (120.7)	NB Left	C (17.4)	F (357.60)
SB Left	F (51.2)	C (18.7)	SB Left	F (90.7)	D (26.0)
EB Left/Through/Right	F (*)	F (*)	EB Left/Through/Right	F (*)	F (*)
WB Left/Through/Right	F (1810.0)	F (*)	WB Left/Through/Right	F (5359.0)	F (*)

\* Indicates a value that exceeded the capabilities of the HCS2000 program.

Level-of-Service - 

A	B	C	D	E	F
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**Table I-4: Weekday Peak Hour LOS for Clapham Road at Mulberrie Point Road Intersection (Two-Way Stop-Controlled Intersection)**

Yearly Conditions	Level of Service (Delay in seconds)		Yearly Conditions	Level of Service (Delay in seconds)	
	A.M. Peak	P.M. Peak		A.M. Peak	P.M. Peak
<b>2007 Average Peak Traffic</b>			<b>2020 Average Peak Traffic</b>		
NB Left/Through	A (8.4)	A (8.8)	NB Left/Through	A (9.0)	B (11.6)
SB Left/Through/Right	A (8.9)	A (8.6)	SB Left/Through/Right	B (11.3)	B (10.3)
EB Left/Through/Right	C (19.4)	C (17.1)	EB Left/Through/Right	F (737.9)	F (*6)
WB Left/Through/ Right	B (14.5)	C (24.4)	WB Left/Through/Right	F (350.4)	F (*)
<b>2007 Summer Peak Traffic</b>			<b>2020 Summer Peak Traffic</b>		
NB Left/Through	A (8.8)	A (9.8)	NB Left/Through	A 9.2)	B (12.2)
SB Left/Through/Right	A (9.8)	A (9.5)	SB Left/Through/Right	B (12.0)	B (10.6)
EB Left/Through/Right	E (44.0)	D (33.1)	EB Left/Through/Right	F (1232.0)	F (*)
WB Left/Through/Right	C (20.0)	F (337.6)	WB Left/Through/Right	F (1284.0)	F (*)
<b>2010 Average Peak Traffic</b>			<b>2025 Average Peak Traffic</b>		
NB Left/Through	A (8.6)	A (9.1)	NB Left/Through	A (9.3)	B (12.5)
SB Left/Through/Right	A (9.1)	A (8.8)	SB Left/Through/Right	B (12.5)	B (10.9)
EB Left/Through/Right	C (23.1)	C (19.4)	EB Left/Through/Right	F (1650.0)	F (*)
WB Left/Through/Right	C (15.9)	E (35.6)	WB Left/Through/Right	F (*)	F (*)
<b>2010 Summer Peak Traffic</b>			<b>2025 Summer Peak Traffic</b>		
NB Left/Through	A (9.0)	B (10.4)	NB Left/Through	A (9.5)	B (13.5)
SB Left/Through/Right	B (10.3)	A (9.9)	SB Left/Through/Right	B (13.6)	B (11.4)
EB Left/Through/Right	F (97.4)	F (79.3)	EB Left/Through/Right	F (3171.0)	F (*)
WB Left/Through/Right	C (24.8)	F (872.0)	WB Left/Through/Right	F (*)	F (*)
<b>2015 Average Peak Traffic</b>			<b>2030 Average Peak Traffic</b>		
NB Left/Through	A (8.8)	B (10.7)	NB Left	A (9.6)	B (13.7)
SB Left/Through/Right	B (10.3)	A (9.7)	SB Left	B (14.0)	B (11.6)
EB Left/Through/Right	F 274.2)	F (2297.0)	EB Left/Through/Right	F (3698.0)	F (*)
WB Left/Through/Right	F (68.9)	F (3914.0)	WB Left/Through/Right	F (*)	F (*)
<b>2015 Summer Peak Traffic</b>			<b>2030 Summer Peak Traffic</b>		
NB Left/Through	A (8.9)	B (11.2)	NB Left	A (9.9)	C (15.1)
SB Left/Through/Right	B (10.8)	A (10.0)	SB Left	C (15.9)	B (12.2)
EB Left/Through/Right	F (472.9)	F (*)	EB Left/Through/Right	F (11247.0)	F (*)
WB Left/Through/Right	F (191.8)	F (*)	WB Left/Through/Right	F (*)	F (*)

\* Indicates a value that exceeded the capabilities of the HCS2000 program.

\*\* Indicates a U-turn only movement.

Level-of-Service - 

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**Table I-5: Weekday Peak Hour LOS  
 SR 1 and Clapham Road Intersection (Semi-Actuated Signalized Intersection)**

Yearly Conditions	Level of Service (Delay in seconds)		Yearly Conditions	Level of Service (Delay in seconds)	
	A.M. Peak	P.M. Peak		A.M. Peak	P.M. Peak
<b>2007 Average Peak Traffic</b>			<b>2020 Average Peak Traffic</b>		
Signalized Intersection	B (18.4)	E (79.1)	Signalized Intersection	F (80.2)	F (234.4)
<b>2007 Summer Peak Traffic</b>			<b>2020 Summer Peak Traffic</b>		
Signalized Intersection	D (48.8)	F (131.8)	Signalized Intersection	F (117.5)	F (287.2)
<b>2010 Average Peak Traffic</b>			<b>2025 Average Peak Traffic</b>		
Signalized Intersection	C (24.5)	F (119.3)	Signalized Intersection	F (119.0)	F (281.1)
<b>2010 Summer Peak Traffic</b>			<b>2025 Summer Peak Traffic</b>		
Signalized Intersection	E (64.1)	F (151.7)	Signalized Intersection	F (179.6)	F (336.4)
<b>2015 Average Peak Traffic</b>			<b>2030 Average Peak Traffic</b>		
Signalized Intersection	D (48.1)	F (188.7)	Signalized Intersection	F (168.1)	F (328.5)
<b>2015 Summer Peak Traffic</b>			<b>2030 Summer Peak Traffic</b>		
Signalized Intersection	E (70.3)	F (239.2)	Signalized Intersection	F (249.6)	F (386.4)

\* Indicates a value that exceeded the capabilities of the HCS2000 program.

\*\* Indicates a U-turn only movement.

**Table I-6: Weekday Peak Hour LOS  
 SR 1 and North Skeeter Neck Road Intersection (Two-Way Stop-Controlled Intersection)**

Yearly Conditions	Level of Service (Delay in seconds)		Yearly Conditions	Level of Service (Delay in seconds)	
	A.M. Peak	P.M. Peak		P.M. Peak	A.M. Peak
<b>2007 Average Peak Traffic</b>			<b>2020 Average Peak Traffic</b>		
SB Left	C (20.1)	B (11.5)	SB Left	E (35.5)	C (17.0)
WB Right	C (23.5)	B (13.1)	WB Right	E (41.9)	C (18.2)
<b>2007 Summer Peak Traffic</b>			<b>2020 Summer Peak Traffic</b>		
SB Left	D (25.1)	B (13.4)	SB Left	F (60.1)	C (23.0)
WB Right	D (30.4)	B (15.0)	WB Right	F (73.2)	C (22.5)
<b>2010 Summer Peak Traffic</b>			<b>2025 Average Peak Traffic</b>		
SB Left	C (21.2)	B (12.3)	SB Left	E (45.4)	C (19.7)
WB Right	C (24.9)	B (14.0)	WB Right	F (54.3)	C (20.2)
<b>2010 Summer Peak Traffic</b>			<b>2025 Summer Peak Traffic</b>		
SB Left	D (30.9)	B (15.0)	SB Left	F (88.9)	D (29.0)
WB Right	E (37.5)	C (16.2)	WB Right	F (104.9)	D (25.9)
<b>2015 Average Peak Traffic</b>			<b>2030 Average Peak Traffic</b>		
SB Left	D (28.7)	B (14.9)	SB Left	F (58.5)	C (23.0)
WB Right	D (33.5)	C (16.4)	WB Right	F (70.8)	C (22.8)
<b>2015 Summer Peak Traffic</b>			<b>2030 Summer Peak Traffic</b>		
SB Left	E (44.5)	C (18.9)	SB Left	F (130.6)	E (38.0)
WB Right	F (53.0)	C (19.6)	WB Right	F (163.1)	D (30.5)

\* Indicates a value that exceeded the capabilities of the HCS2000 program.

\*\* Indicates a U-turn only movement.

Level-of-Service - 

A	B	C	D	E	F
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**Table I-7: Weekday Peak Hour LOS  
 SR 1 and Bower's Beach Road (Semi-Actuated Signalized Intersection)**

Yearly Conditions	Level of Service (Delay in seconds)		Yearly Conditions	Level of Service (Delay in seconds)	
	A.M. Peak	P.M. Peak		A.M. Peak	P.M. Peak
<b>2007 Average Peak Traffic</b>			<b>2020 Average Peak Traffic</b>		
Signalized Intersection	D (46.4)	B (15.2)	Signalized Intersection	F (177.0)	F (232.4)
<b>2007 Summer Peak Traffic</b>			<b>2020 Summer Peak Traffic</b>		
Signalized Intersection	F (106.1)	F (82.4)	Signalized Intersection	F (250.6)	F (312.5)
<b>2010 Summer Peak Traffic</b>			<b>2025 Average Peak Traffic</b>		
Signalized Intersection	E (79.9)	C (21.1)	Signalized Intersection	F (226.2)	F (279.4)
<b>2010 Summer Peak Traffic</b>			<b>2025 Summer Peak Traffic</b>		
Signalized Intersection	F (148.1.4)	F (125.7)	Signalized Intersection	F (313.9)	F (369.3)
<b>2015 Average Peak Traffic</b>			<b>2030 Average Peak Traffic</b>		
Signalized Intersection	F (130.5)	F (191.3)	Signalized Intersection	F (279.3)	F (328.4)
<b>2015 Summer Peak Traffic</b>			<b>2030 Summer Peak Traffic</b>		
Signalized Intersection	F (191.8)	F (258.0)	Signalized Intersection	F (380.3)	F (427.4)

**Table I-8: Weekday Peak Hour LOS  
 SR 1 and South Skeeter Neck Road Intersection (Two-Way Stop-Controlled Intersection)**

Yearly Conditions	Level of Service (Delay in seconds)		Yearly Conditions	Level of Service (Delay in seconds)	
	A.M.	P.M. Peak		A.M. Peak	P.M. Peak
<b>2007 Average Peak Traffic</b>			<b>2020 Average Peak Traffic</b>		
NB Left **	B (12.3)	C (23.6)	NB Left **	C (18.4)	F (107.9)
SB Left	C (22.5)	B (14.8)	SB Left	F (90.5)	E (33.5)
WB Left/Right	F (50.7)	D (25.6)	WB Left/Right	F (562.1)	F (94.2)
<b>2007 Summer Peak Traffic</b>			<b>2020 Summer Peak Traffic</b>		
NB Left **	B (14.3)	D (34.0)	NB Left **	C (22.1)	F (176.4)
SB Left	D (33.3)	C (18.8)	SB Left	F (228.8)	E (49.8)
WB Left/Right	F (210.9)	E (40.4)	WB Left/Right	F (2499.0)	F (228.8)
<b>2010 Average Peak Traffic</b>			<b>2025 Average Peak Traffic</b>		
NB Left **	B (13.2)	D (29.0)	NB Left **	C (20.3)	F (143.5)
SB Left	D (27.6)	C (16.6)	SB Left	F (171.3)	E (44.0)
WB Left/Right	F (71.8)	D (33.4)	WB Left/Right	F (1424.0)	F (185.0)
<b>2010 Summer Peak Traffic</b>			<b>2025 Summer Peak Traffic</b>		
NB Left **	C (15.8)	E (44.6)	NB Left **	D (25.1)	F (245.0)
SB Left	E (46.2)	C (21.9)	SB Left	F (507.3)	F (74.5)
WB Left/Right	F (211.9)	F (51.4)	WB Left/Right	F (*)	F (474.6)
<b>2015 Average Peak Traffic</b>			<b>2030 Average Peak Traffic</b>		
NB Left **	C (16.7)	F (85.0)	NB Left **	D (25.1)	F (185.0)
SB Left	E (58.3)	D (25.8)	SB Left	F (507.3)	F (61.7)
WB Left/Right	F (244.2)	F (67.0)	WB Left/Right	F (2499.0)	F (366.6)
<b>2015 Summer Peak Traffic</b>			<b>2030 Summer Peak Traffic</b>		
NB Left **	C (19.6)	F (133.6)	NB Left **	D (28.5)	F (332.3)
SB Left	F (120.1)	E (35.2)	SB Left	F (929.5)	F (115.3)
WB Left/Right	F (957.9)	F (131.0)	WB Left/Right	F (*)	F (957.1)

\* Indicates a value that exceeded the capabilities of the HCS2000 program.

\*\* Indicates a U-turn only movement.

Level-of-Service - 

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**Table I-9: Weekday Peak Hour LOS  
 SR 1 and Barratt's Chapel Road / Site Entrance Intersection (Two-Way Stop-Controlled Intersection)**

Yearly Conditions	Level of Service (Delay in seconds)		Yearly Conditions	Level of Service (Delay in seconds)	
	A.M. Peak	P.M. Peak		A.M. Peak	P.M. Peak
<b>2007 Average Peak</b>			<b>2020 Average Peak</b>		
NB Left	B (13.8)	E (44.5)	NB Left	F (56.1)	F (6398.0)
SB Left	C (20.9)	B (14.5)	SB Left	E (40.3)	D (25.1)
EB Left/Through/Right	F (239.1)	F (*)	EB Left/Through/Right	F (*)	F (*)
WB Left/Through/Right	F (*)	F (*)	WB Left/Through/Right	F (*)	F (*)
<b>2007 Summer Peak</b>			<b>2020 Summer Peak</b>		
NB Left	C (17.4)	F (156.7)	NB Left	F (140.4)	F (11609.0)
SB Left	D (29.2)	C (15.8)	SB Left	F (65.0)	D (34.5)
EB Left/Through/Right	F (806.1)	F (*)	EB Left/Through/Right	F (*)	F (*)
WB Left/Through/Right	F (*)	F (*)	WB Left/Through/Right	F (*)	F (*)
<b>2010 Average Peak</b>			<b>2025 Average Peak</b>		
NB Left	C (15.2)	F (71.6)	NB Left	F (89.9)	F (8579.0)
SB Left	D (24.0)	C (15.8)	SB Left	F (55.0)	D (31.9)
EB Left/Through/Right	F (470.5)	F (*)	EB Left/Through/Right	F (*)	F (*)
WB Left/Through/Right	F (*)	F (*)	WB Left/Through/Right	F (*)	F (*)
<b>2010 Summer Peak</b>			<b>2025 Summer Peak</b>		
NB Left	C (20.2)	F (314.6)	NB Left	F (234.9)	F (16589.0)
SB Left	D (35.0)	B (20.2)	SB Left	F (95.0)	E (46.8)
EB Left/Through/Right	F (1339.0)	F (*)	EB Left/Through/Right	F (*)	F (*)
WB Left/Through/Right	F (*)	F (*)	WB Left/Through/Right	F (*)	F (*)
<b>2015 Average Peak</b>			<b>2030 Average Peak</b>		
NB Left	D (32.6)	F (4633.0)	NB Left	F (147.5)	F (11784.0)
SB Left	D (3009)	C (20.2)	SB Left	F (77.0)	E (41.0)
EB Left/Through/Right	F (*)	F (*)	EB Left/Through/Right	F (*)	F (*)
WB Left/Through/Right	F (*)	F (*)	WB Left/Through/Right	F (*)	F (*)
<b>2015 Summer Peak</b>			<b>2030 Summer Peak</b>		
NB Left	F (61.5)	F (8056.0)	NB Left	F (364.1)	F (*)
SB Left	C (45.0)	D (26.2)	SB Left	F (143.5)	F (64.8)
EB Left/Through/Right	F (*)	F (*)	EB Left/Through/Right	F (*)	F (*)
WB Left/Through/Right	F (*)	F (*)	WB Left/Through/Right	F (*)	F (*)

\* Indicates a value that exceeded the capabilities of the HCS2000 program.

\*\* Indicates a U-turn only movement.

Level-of-Service - 

A	B	C	D	E	F
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#### ***D. Proposed Action***

In order to address the needs for traffic safety and preserving roadway capacity for current and future traffic along SR 1 and intersecting local roadways it is essential to separate through traffic movements along SR 1 from local traffic movements crossing SR 1. The Delaware Department of Transportation (DelDOT) is proposing to remove the existing at-grade intersection crossings at Bower's Beach Road and Mulberrie Point Road and all direct property access to SR 1 and providing alternative access to adjacent properties via parallel service roads and access to and from SR 1 via ramps. Local road crossings of SR 1 would be consolidated at grade separated intersection and parallel service roads would be provided to maintain connectivity between the local roads and private accesses on each side of SR 1.

The proposed action is consistent with goals and objectives identified in the State of Delaware's Long-Range Transportation Plan, the SR 1 Corridor Capacity Preservation Program, the Strategies for State Policies and Spending and the Livable Delaware Initiative. The proposed action is also consistent with the Kent County, Delaware Comprehensive Plan (2008) and the Dover/Kent County Metropolitan Planning Organization's Long-Range Transportation Plan and Transportation Improvement Program.