



STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
800 BAY ROAD
P.O. BOX 778
DOVER, DELAWARE 19903

NICOLE MAJESKI
SECRETARY

December 15, 2021

Mr. Michael Kaszyski, Jr.
Duffield Associates, Inc.
5400 Limestone Road
Wilmington, DE 19808

Dear Mr. Kaszyski:

The enclosed Traffic Impact Study (TIS) review letter for the **Sussex County Family Courts development** (Tax Parcels: 134-14.20-223.00 through 233.00 and 135-15.17-148.01) development has been completed under the responsible charge of a registered professional engineer whose firm is authorized to work in the State of Delaware. They have found the TIS to conform to DelDOT's Development Coordination Manual and other accepted practices and procedures for such studies. DelDOT accepts this letter and concurs with the recommendations. If you have any questions concerning this letter or the enclosed review letter, please contact me at (302) 760-2124.

Sincerely,

Claudy Joinville
Project Engineer

CJ:km

Enclosures

cc with enclosures: Mr. James Taylor, Duffield Associates, Inc.
Mr. Jerry Platt, Division of Facilities Management (State of Delaware)
Mr. David Edgell, Office of State Planning Coordination
Ms. Jocelyn Huff, Town of Georgetown
Mr. Jamie Whitehouse, Sussex County Planning and Zoning
Ms. Joanne Arellano, Johnson, Mirmiran, & Thompson, Inc.
DelDOT Distribution

DelDOT Distribution

Brad Eaby, Deputy Attorney General
Shanté Hastings, Director, Transportation Solutions (DOTS)
Pamela Steinebach, Director, Planning
Mark Luszcz, Deputy Director, Traffic, DOTS
Peter Haag, Chief Traffic Engineer, Traffic, DOTS
Michael Simmons, Assistant Director, Project Development South, DOTS
Todd Sammons, Assistant Director, Development Coordination
T. William Brockenbrough, Jr., County Coordinator, Development Coordination
Chris Sylvester, Traffic Studies Manager, Traffic, DOTS
Alistair Probert, South District Engineer, South District
Matthew Schlitter, South District Public Works Engineer, South District
Jared Kauffman, Service Development Planner, Delaware Transit Corporation
Tremica Cherry, Service Development Planner, Delaware Transit Corporation
Anthony Aglio, Planning Supervisor, Statewide & Regional Planning
Wendy Polasko, Subdivision Engineer, Development Coordination
Steve McCabe, Sussex Review Coordinator, Development Coordination
Mark Galipo, Traffic Engineer, Traffic, DOTS
Derek Sapp, Subdivision Manager, Development Coordination
Annamaria Fumato, Project Engineer, Development Coordination



December 15, 2021

Mr. Claudy Joinville
Project Engineer
Delaware Department of Transportation
Development Coordination, Division of Planning
800 Bay Road
Dover, DE 19901

RE: Agreement No. 1945F
Project Number T202069012
Traffic Impact Study Services
Task 3-6A – Sussex County Family Courts TIS

Dear Mr. Joinville:

Johnson, Mirmiran, and Thompson (JMT) has completed a review of the Traffic Impact Study (TIS) for the Sussex County Family Courts development, which was prepared by Duffield Associates, LLC, dated May 2021 and the TIS Addendum prepared by Duffield Associates, LLC, dated October 19, 2021. This review was assigned as Task Number 3-6A. The TIS and TIS Addendum have been prepared in a manner generally consistent with DelDOT's *Development Coordination Manual*.

The TIS evaluates the impacts of a proposed 107,325 square-foot family court building in the Town of Georgetown in Sussex County, Delaware. The site is located at the southeast corner of the intersection of US Route 9 and S. Race Street. The subject property is on an approximately 2.48-acre assemblage of parcels. The land is currently zoned as HD (Historic) and the developer does not plan to rezone the land. Construction is anticipated to be complete in 2023. Two access points are proposed: one on US Route 9 and one on S. Bedford Street by way of E. Pine Street.

After the preparation of the TIS, it was determined that the proposed site access along US Route 9 would be converted to a gated entrance for judges and secure deliveries only. In addition, the number of trips generated by the development was reduced based on local data collected. As such, a TIS Addendum was performed to evaluate the effects of the redistribution of site traffic and the reduction of trip generation which also resulted in a reduction of the number of study intersections.

DelDOT has two proposed improvement projects adjacent to the TIS Addendum study area including the *Georgetown East Gateway Improvements* project (DelDOT Contract No. T201804301) and the *Park Avenue Relocation* project (DelDOT Contract No. T202004601 and T201904601). More information regarding the projects can be found on page 9.

The May 2021 TIS included a 2023 with development (Case 3) scenario with access proposed along US Route 9 and on S. Bedford Street by way of E. Pine Street. In this Case 3, the access proposed along US Route 9 would be open to both the public and judges. However, with the October 2021 TIS Addendum, in the 2023 with development scenario (which is referred to as Case



4 in this letter) the US Route 9 access is proposed to be a gated entrance for only judges and secure deliveries. The results and recommendations discussed below for the 2023 with development scenario are based on Case 4. Case 3 results are included for reference and are located in the results tables which begin on Page 20.

Based on our review of the TIS Addendum, we have the following comments and recommendations:

The following intersections included in the TIS Addendum exhibit level of service (LOS) deficiencies without the implementation of physical roadway and/or traffic control improvements. Case 4 is the 2023 with development scenario proposing the site access along US Route 9 converted to a gated entrance for judges and secure deliveries only.

Intersection	LOS Deficiencies Occur		Case
	AM	PM	
Site Entrance A/US Route 9		X	Case 4 – 2023 with Development and Addendum Distributions
Site Entrance B/E. Pine Street/S. Bedford Street (Sussex Road 431)		X	Case 4 – 2023 with Development and Addendum Distributions
US Route 9/N. Bedford Street (Sussex Road 18)/S. Bedford Street (Georgetown Circle)	X	X	Case 1 – 2020 Existing
	X	X	Case 2 – 2023 without Development
	X	X	Case 4 – 2023 with Development and Addendum Distributions
US Route 9/King Street		X	Case 2 – 2023 without Development
		X	Case 4 – 2023 with Development and Addendum Distributions

The unsignalized Site Entrance A intersection with US Route 9 is proposed across from the Manlove Auto Parts Entrance (approximately 200 feet east of the US Route 9/S. Race Street/N. Race Street intersection) and exhibits LOS deficiencies during the PM peak hour under future conditions with the proposed development (Case 4). The failures occur along the northbound Site Entrance A approach with delays of up to 72.5 seconds per vehicle and a calculated 95th percentile queue length of approximately 20 feet.

A supplemental Synchro analysis was performed at the study intersections along US Route 9 (Site Entrance A, S. Race Street/N. Race Street, and S. Bedford Street/N. Bedford Street) and S. Bedford Street (Site Entrance B) to evaluate queues. Based on the SimTraffic simulation results, the calculated 95th percentile queue lengths along westbound US Route 9 at the S. Race Street/N. Race Street intersection are approximately over 1,000 feet during the AM and PM peak hours under



Case 4 conditions which would extend past the proposed Site Entrance A (which is approximately 200 feet east of S. Race Street/N. Race Street) and impact operations at the entrance.

Although extensive queues would occur along westbound US Route 9, a maximum of seven vehicles are projected to execute left turns into or out of Site Entrance A during a peak hour. Therefore, we recommend the developer construct the Site Entrance A along US Route 9 as an unsignalized full access gated entrance, restricted to judges and secure deliveries only. In addition, due to the extensive queues and the nearby signalized intersection, Do Not Block intersection markings and signage could be installed along US Route 9 at Site Entrance A. Approval from DelDOT Traffic would be needed for Do Not Block intersection markings on state-maintained roadways.

The unsignalized W. Pine Street/E. Pine Street (Site Entrance B) intersection with S. Bedford Street exhibits LOS deficiencies during the PM peak hour under future conditions with the proposed development (Case 4). The failures occur along the westbound E. Pine Street (Site Entrance B) approach with delays of up to 40.1 seconds per vehicle with a calculated 95th percentile queue length of approximately 130 feet. Additionally, the supplemental Synchro/SimTraffic analysis calculated 95th percentile queue lengths of approximately more than 320 feet along the northbound S. Bedford Street approach to US Route 9 (Georgetown Circle). The projected queue lengths would impact operations at the W. Pine Street/E. Pine Street/S. Bedford Street intersection which is approximately 270 feet south of the Georgetown Circle.

These deficiencies at the W. Pine Street/E. Pine Street (Site Entrance B) intersection with S. Bedford Street could be mitigated by restricting the westbound approach to permit right turning movements only. However, the westbound E. Pine Street (Site Entrance B) approach is an existing roadway utilized by traffic other than that generated by the development. As such, the restriction of any movements should be considered as part of a larger study effort outside the scope of this TIS. Therefore, we recommend the developer maintain the W. Pine Street/E. Pine Street (Site Entrance B) intersection with S. Bedford Street as an unsignalized full access.

The unsignalized US Route 9 intersection with N. Bedford Street/S. Bedford Street (Georgetown Circle) exhibits LOS deficiencies during the AM and PM peak hours under existing and future conditions, with or without the proposed development. Specifically, deficiencies occur along the eastbound US Route 9 and southbound N. Bedford Street approaches during the AM peak hour and along all approaches during the PM peak hour under existing conditions. Deficiencies occur along the eastbound US Route 9, westbound US Route 9, northbound S. Bedford Street, and southbound N. Bedford Street approaches during the AM and PM peak hours under Case 4 conditions with delays of 113.9, 256.8, 149.7, and 146.0 seconds per vehicle, respectively. However, improvements at this intersection are outside the scope of this TIS, as any alterations to the historic traffic circle should be part of a larger improvement project. Therefore, we do not recommend the developer implement any improvements at this intersection to mitigate the deficiencies.

The unsignalized US Route 9 intersection with King Street exhibits LOS deficiencies during the PM peak hour under future conditions with and without the proposed development (Cases 2 and 4). The failures occur along the northbound and southbound King Street approaches with delays



of up to 39.8 seconds per vehicle with a calculated 95th percentile queue length of approximately 30 feet. Either a roundabout or signal would mitigate the deficiencies. However, we do not recommend the developer implement any improvements at this intersection due to the minimal queue lengths projected along King Street.

Should the Town of Georgetown approve the proposed development, the following items should be incorporated into the site design and reflected on the record plan. All applicable agreements (i.e. letter agreements for off-site improvements and traffic signal agreements) should be executed prior to entrance plan approval for the proposed development. The following items are based on the review of the TIS Addendum.

1. The developer shall improve US Route 9 within the limits of their frontage to meet DelDOT's standards for Functional Classification as found in Section 1.1 of the *Development Coordination Manual* and elsewhere therein. The improvements shall include both directions of travel, regardless of whether the developer's lands are on one or both sides of the road. Frontage is defined in Section 1 of the *Development Coordination Manual*, which states "This length includes the length of roadway perpendicular to lines created by the projection of the outside parcel corners to the roadway." Questions on or appeals of this requirement should be directed to the DelDOT Subdivision Review Coordinator in whose area the development is located.
2. The developer should coordinate with the Town of Georgetown regarding the design of the site entrance along E. Pine Street.
3. The developer should construct a full access site entrance (Site Entrance A) on US Route 9, across from the entrance to Manlove Auto Parts, approximately 200 feet east of the northeast point of tangency at the US Route 9/N. Race Street/S. Race Street intersection. The entrance should be a gated entrance for judges and secure deliveries only. A plan depicting the design should be submitted to DelDOT as part of the Entrance Plan review process. The intersection should be consistent with the lane configurations shown in the table below. Do Not Block intersection markings and signage could be installed along US Route 9 at Site Entrance A. Approval from DelDOT Traffic would be needed for Do Not Block intersection markings on state-maintained roadways.



Approach	Current Configuration	Proposed Configuration
Eastbound US Route 9	One shared left turn/through lane	One shared left turn/through/right turn lane
Westbound US Route 9	One shared through/right turn lane	One shared left turn/through/right turn lane
Northbound Site Entrance A	Does not exist	One shared left turn/through/right turn lane
Southbound Manlove Auto Parts Entrance	One shared left turn/right turn lane	One shared left turn/through/right turn lane

4. The developer should maintain the lane configurations at the E. Pine Street intersection with S. Bedford Street. The intersection should be consistent with the lane configurations shown in the table below.

Approach	Current Configuration	Proposed Configuration
Eastbound E. Pine Street	One shared left turn/through/right turn lane	No change
Westbound E. Pine Street/Site Entrance B	One shared left turn/through/right turn lane	No change
Northbound S. Bedford Street	One shared left turn/through/right turn lane	No change
Southbound S. Bedford Street	One shared left turn/through/right turn lane	No change

5. The developer should enter into a traffic signal agreement with DeIDOT for the intersection of US Route 9 with S. Race Street/N. Race Street due to the impacts the site will have on the existing signal equipment especially along the southeast corner of the intersection. The intersection should be consistent with the lane configurations shown in the table below:



Approach	Current Configuration	Proposed Configuration
Eastbound US Route 9	One shared through/right turn lane	No change
Westbound US Route 9	One shared through/right turn lane	No change
Northbound S. Race Street	One shared left turn/through/right turn lane	No change
Southbound N. Race Street	One shared left turn/through/right turn lane	No change

The signal agreement should include pedestrian signals, crosswalks, interconnection, and ITS equipment such as CCTV cameras at DelDOT’s discretion. An updated signal plan should be submitted to DelDOT as part of the Entrance Plan review process.

6. The following bicycle, pedestrian, and transit improvements should be included:
 - a. A minimum of fifteen-foot wide permanent easement from the edge of the right-of-way should be dedicated to DelDOT along the US Route 9 site frontage. Within the easement, the developer should maintain or replace the existing brick sidewalk. The sidewalk should be designed to meet current AASHTO and ADA standards. The developer should coordinate with DelDOT’s Development Coordination Section during the plan review process to identify the exact location of the sidewalk/easement.
 - b. As S. Race Street and E. Pine Street are under the Town of Georgetown jurisdiction, the developer should coordinate with the Town on the pedestrian improvements along the S. Race Street and E. Pine Street site frontages.
 - c. At the US Route 9 and S. Race Street/N. Race Street intersection, the diagonal curb ramp should be replaced with a Type 3 curb ramp with the edges of the ramp opening aligned with the crosswalks.
 - d. Where internal sidewalks are located alongside of parking spaces, a buffer, physical barrier, or signage should be added to eliminate vehicular overhang onto the sidewalk.
 - e. Internal bicycle racks should be provided.
 - f. Utility covers should be moved outside of any designated bicycle lanes and any proposed sidewalks or should be flush with the pavement.



7. Due to the proximity of the proposed development to the Delaware Coastal Airport, we recommend that deed restrictions be required similar to the attached Avigation Nuisance Easement and Non-Suit Covenant (pages 44 and 45). The applicant should contact Mr. Joshua Thomas at (302) 760-4834 at DelDOT's Statewide and Regional Planning Section to determine whether the proposed development is within the Runway Protection Zone. If so, restrictions may apply.

Please note that this review generally focuses on capacity and level of service issues; additional safety and operational issues will be further addressed through DelDOT's Plan Review process.

Improvements in this TIS may be considered "significant" under DelDOT's *Work Zone Safety and Mobility Procedures and Guidelines*. These guidelines are available on DelDOT's website at https://www.deldot.gov/Publications/manuals/de_mutcd/index.shtml. For any additional information regarding the work zone impact and mitigation procedures during construction, please contact Mr. Don Weber, Assistant Director for Traffic Operations and Management. Mr. Weber can be reached at (302) 659-4651 or by email at Don.Weber@delaware.gov.

Additional details on our review of the TIS and TIS Addendum are attached. Please contact me at (302) 266-9600 if you have any questions concerning this review.

Sincerely,
Johnson, Mirmiran, and Thompson, Inc.

A handwritten signature in black ink, appearing to read 'Joanne M. Arellano', is written above the printed name.

Joanne M. Arellano, P.E., PTOE

cc: Mir Wahed, P.E., PTOE
Janna Brown, E.I.T.
Enclosure

General Information

Report date: May 2021 TIS report; October 19, 2021 TIS Addendum

Prepared by: Duffield Associates, LLC

Prepared for: State of Delaware

Tax Parcels: 134-14.20-223.00 through 233.00 and 135-15.17-148.01

Generally consistent with DelDOT's *Development Coordination Manual (DCM)*: Yes

Project Description and Background

Description: The TIS evaluates the impacts of a 107,325 square-foot State of Delaware Family Court building with an associated 6-story parking garage.

Location: The subject site is located on the southeast corner of the intersection of US Route 9 and S. Race Street, north of E. Pine Street in the Town of Georgetown, Sussex County.

Amount of Land to be developed: An approximately 2.48-acre assemblage of parcels.

Land Use approval(s) needed: Entrance Plan.

Proposed completion date: 2023.

Proposed access locations: Two access points: one full access entrance on US Route 9 and one full access entrance on S. Bedford Street by way of E. Pine Street.

Daily Traffic Volumes:

- 2019 Average Annual Daily Traffic on US Route 9: 14,392

Site Map



*Graphic is an approximation based on the Concept Plan prepared by Duffield Associates, LLC dated November 10, 2020.

Relevant and On-going Projects

DelDOT has two proposed improvement projects within the study area including the *Georgetown East Gateway Improvements* project (DelDOT Contract No. T201804301) which aims to improve safety and operations at the intersection of US Route 9 and Sand Hill Road/Airport Road. The project will realign Sand Hill Road and Airport Road to intersect US Route 9 opposite each other. Additionally, the intersection will be modified provide two left turn lanes, one through lane, and one right turn lane along the eastbound approach, and one left turn lane, one through lane, and one right turn lane along the westbound, northbound, and southbound approaches. Other improvements include pedestrian and bicycle facilities and drainage improvements. Construction began in

September of 2020 and is expected to be complete by Summer 2022. More information about this project can be found at:

<https://deldot.gov/projects/index.shtml?dc=details&projectNumber=T201804301>

The *Park Avenue Relocation* project (DelDOT Contract No. T202004601 and T201904601) aims to improve traffic and safety operations along Park Avenue. Park Avenue, also known as US Route 9 Truck Bypass, is a designated truck route for tractor trailers moving through the Georgetown area. DelDOT's Capital Transportation Plan for Fiscal Year 2019-2024 recommended that the roads used for the truck bypass be upgraded with appropriate turn lanes, shoulders, and intersection improvements. Geometric and roadside improvements will be made throughout the project limits. The project will be completed in two phases: construction for Phase 1 is expected to begin in Spring 2022 and end in Fall 2023, and construction of Phase 2 is expected to begin in Fall 2023 and end in Fall 2025. Phase 1 will include improvements along US Route 113 and Arrow Safety Road, a roundabout at the existing Arrow Safety Road/S. Bedford Street intersection, and the relocation of Park Avenue to just west of Cedar Lane (south of Delaware Coastal Airport). Phase 2 will extend along existing Park Avenue from the end of Phase 1 up to and including the intersection with US Route 9. The US Route 9 and Park Avenue intersection will be improved to provide a separate left turn lane and through lane along westbound US Route 9, a separate through lane and right turn lane along eastbound US Route 9, and a separate left turn lane and right turn lane with an acceleration lane along northbound Park Avenue. Additionally, the Shingle Point Road intersection with US Route 9 will be improved to provide one left turn lane and one shared through/right turn lane along the eastbound US Route 9 approach, one shared left turn/through lane and one channelized right turn lane along the westbound US Route 9 approach, and one shared left turn/through lane and one right turn lane along the southbound Shingle Point Road approach. More information about this project can be found

at: <https://deldot.gov/projects/index.shtml?dc=details&projectNumber=T202004601>

and <https://deldot.gov/projects/index.shtml?dc=details&projectNumber=T201904601>.

Livable Delaware

(Source: Delaware Strategies for State Policies and Spending, 2020)

Location with respect to the Strategies for State Policies and Spending Map of Delaware:

The proposed development is located within the Investment Level 1.

Investment Level 1

These areas are often municipalities, towns, or urban/urbanizing places in counties where density is generally higher than in surrounding areas. In Investment Level 1 Areas, state investments and policies should support and encourage a wide range of uses and densities, promote a variety of transportation options, foster efficient use of existing public and private investments, and enhance community identity and integrity. Overall, it is the state's intent to use its spending and management tools to maintain and enhance community character, and to promote well-designed and efficient new growth in Investment Level 1 Areas.

In Level 1 Areas the state's first priority will be for preserving existing facilities and making safety improvements. Level 1 areas will also be the highest priority for context sensitive transportation

system capacity enhancements, transit-system enhancements, ADA accessibility, and for closing gaps in the pedestrian system, including the Safe Routes to School projects. Investment Level 1 Areas are ideal locations for Transportation Improvement Districts as well as Complete Community Enterprise Districts. Further, Level 1 areas are the first priority for planning projects and studies, bicycle facilities, signal-system enhancements, and the promotion of interconnectivity of neighborhoods and public facilities.

Proposed Development’s Compatibility with Livable Delaware:

The proposed site would be located in Investment Level 1. Investment Level 1 is the highest priority for new state facilities, especially those serving the public. The 2020 Delaware Strategies for State Policies and Spending states that state investments in public facilities, such as libraries, courts, and healthcare and public-safety buildings, should be strategically located to foster community identity and vitality, and complement the historic character. The proposed development is a family court located in a historic district. Therefore, the proposed development is generally consistent with the 2020 update of the Livable Delaware “Strategies for State Policies and Spending.”

Comprehensive Plan

(Source: Town of Georgetown 2010 Comprehensive Plan)

Town of Georgetown Comprehensive Plan:

Per the *Town of Georgetown Comprehensive Plan Map* (adopted February 2019) the proposed development is in an area designated as Historic (HD) and the developer does not plan to rezone the land.

Proposed Development’s Compatibility with the Town of Georgetown Comprehensive Plan:

The *Town Georgetown Comprehensive Plan* states that new construction in the historic district should mesh cohesively with the existing historical structures. Additionally, the plan includes ongoing downtown revitalization, including near the area of the proposed development. Therefore, the proposed development is generally consistent with the *Town of Georgetown Comprehensive Plan*.

Trip Generation

The trip generation for the proposed development was estimated using site-specific data collected from the existing Sussex Family Court using employee and visitor data. The trip generation utilized in the TIS was approved by DelDOT as part of the Preliminary TIS (PTIS) submission.

Table 1
Sussex County Family Courts Trip Generation

	AM Peak Hour			PM Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
130 Employees ¹ 280 Visitors Per Day ²	130	0	130	0	130	130
New Trips	130	0	130	0	130	130

¹Family Courts hours of operation: 8:30-4:30 PM

AM Peak Hours 7:15-8:15 AM (from 03-04-2021 count at S. Bedford Street/Pine Street)

PM Peak Hours 4:30-5:30 PM (from 03-04-2021 count at S. Bedford Street/Pine Street)

130 employees arrive during AM peak hour, leave during PM peak hour

² Average rate of visitors per case = 3 visitors

Peak number of cases per day = 93 cases

Peak number of visitors per day = 93 x 3 = 280 visitors per day

Cases begin at 10AM, therefore no visitor trips during AM peak hour

Last Case of the day begins at 3:30PM and ends no later than 4PM, therefore no visitor trips during the PM peak hour

Overview of TIS and TIS Addendum

Intersections examined:

TIS (Dated May 2021)

1. Site Entrance A / US Route 9
2. Site Entrance B / E. Pine Street / S. Bedford Street (Sussex Road 431)
3. US Route 9 / Sand Hill Road / Airport Road (Sussex Road 319)
4. US Route 9 / Park Avenue (Sussex Road 321)
5. US Route 9 / Shingle Point Road (Sussex Road 249)
6. US Route 9 / S. Race Street / N. Race Street
7. US Route 9 / N. Bedford Street (Sussex Road 18) / S. Bedford Street
8. N. Bedford Street / Bridgeville Road (Sussex Road 18)
9. S. Bedford Street / Park Avenue (Sussex Road 318)
10. S. Bedford Street / Arrow Safety Road (Sussex Road 87)
11. S. Bedford Street / Zoar Road (Sussex Road 48)

TIS Addendum (Dated October 19,2021)

1. Site Entrance A / US Route 9
2. Site Entrance B / E. Pine Street / S. Bedford Street (Sussex Road 431)
3. US Route 9 / S. Race Street / N. Race Street
4. US Route 9 / N. Bedford Street (Sussex Road 18) / S. Bedford Street
5. US Route 9/S. King Street

Conditions examined:

TIS (Dated May 2021)

1. Case 1 – 2020 Existing
2. Case 2 – 2023 without Development
3. Case 3 – 2023 with Development

TIS Addendum (Dated October 19, 2021)

1. Case 1 – 2020 Existing
2. Case 2 – 2023 without Development
3. Case 4 – 2023 with Development and Addendum Distributions

Committed Developments considered:

1. The Vines of Sand Hill (f.k.a. Sposato Property) (393 single-family detached houses)
2. Sussex County Sports Complex (10 soccer fields, including 4 multi-purpose fields)
3. Weston Willows (f.k.a. Besche Property) (287 apartment units)
4. Two Farms, Inc. Retail Site (14,950 square-foot retail)
5. Oaks at Georgetown (58 single-family detached houses, 138 units of multi-family mid-rise housing, and 337 units of multi-family low-rise housing)

Note: Committed development information provided in the TIS supersedes the information provided in the January 14, 2021 DelDOT Scoping Meeting Memorandum.

Peak hours evaluated: Weekday morning and weekday evening.

Intersection Descriptions

1. Site Entrance A / US Route 9 (Sussex Road 18)

Type of Control: Proposed two-way stop-controlled intersection (T- intersection)

Eastbound Approach: (US Route 9) Existing one shared through/right turn lane.

Westbound Approach: (US Route 9) Existing one shared left turn/through lane.

Northbound Approach: (Site Entrance A) Proposed shared left turn/right turn lane, stop controlled.

2. Site Entrance B / E. Pine Street / S. Bedford Street (Sussex Road 431)

Type of Control: Existing two-way stop-controlled intersection (T-intersection)

Eastbound Approach: (E. Pine Street) Existing one shared left turn/through/right turn lane.

Westbound Approach: (E. Pine Street) Existing one shared left turn/through/right turn lane.

Northbound Approach: (S. Bedford Street) Existing one shared left turn/through/right turn lane.

Southbound Approach: (S. Bedford Street) Existing one shared left turn/through/right turn lane.

3. US Route 9 / Sand Hill Road / Airport Road (Sussex Road 319)

Type of Control: Existing signalized intersection (four legged)

Eastbound Approach: (US Route 9) Existing one left turn lane and one shared through/right turn lane; proposed two left turn lanes, one through lane, and one channelized right turn lane.

Westbound Approach: (US Route 9) Existing one left turn lane and one shared through/right turn lane; proposed one left turn lane, one through lane, and one channelized right turn lane.

Northbound Approach: (Airport Road) Existing one shared left turn/through/right turn lane; proposed one left turn lane, one through lane, and one right turn lane.

Southbound Approach: (Sand Hill Road) Existing one shared left turn/through/right turn lane; proposed one left turn lane, one through lane and one right turn lane.

Note: This intersection will be improved to the proposed lane configurations as part of the *Georgetown East Gateway Improvements* Project (DeIDOT Contract No. T201804301).

4. US Route 9 / Park Avenue (Sussex Road 321)

Type of Control: Existing signalized intersection (T-intersection)

Eastbound Approach: (US Route 9) Existing one shared through/right turn lane; proposed one through lane and one right turn lane.

Westbound Approach: (US Route 9) Existing one shared left turn/through lane; proposed one left turn lane and one through lane.

Northbound Approach: (Park Avenue) Existing one shared left turn/right turn lane; proposed one left turn lane and one channelized right turn lane with acceleration lane.

Note: This intersection will be improved to the proposed lane configurations as part of the DeIDOT *Park Avenue Relocation, Phase 2* project (Contract No. T201904601)

5. US Route 9 / Shingle Point Road (Sussex Road 249) / French Road

Type of Control: Existing two-way stop-controlled intersection (four-legged intersection)

Eastbound Approach: (US Route 9) Existing one shared left turn/through lane; proposed one left turn lane and one shared through/right turn lane.

Westbound Approach: (US Route 9) Existing one shared left turn/through/right turn lane; proposed one shared left turn/through lane and one right turn lane.

Northbound Approach: (French Road) Existing one shared left turn/through/right turn lane, stop controlled.

Southbound Approach: (Shingle Point Road) Existing one shared left turn/right turn lane, stop controlled; proposed one shared left turn/through lane and one right turn lane.

Note: This intersection will be improved to the proposed lane configurations as part of the DeLDOT *Park Avenue Relocation, Phase 2* project (Contract No. T201904601).

6. US Route 9 / S. Race Street / N. Race Street

Type of Control: Existing signalized intersection (four-legged intersection)

Eastbound Approach: (US Route 9) Existing one shared through/right turn lane.

Westbound Approach: (US Route 9) Existing one shared through/right turn lane.

Northbound Approach: (S. Race Street) Existing one shared left turn/through/right turn lane.

Southbound Approach: (N. Race Street) Existing one shared left turn/through/right turn lane.

7. US Route 9 / N. Bedford Street (Sussex Road 18) / S. Bedford Street

Type of Control: Existing single-lane roundabout (four-legged)

Eastbound Approach: (US Route 9) Existing one shared left turn/through/right turn lane.

Westbound Approach: (US Route 9) Existing one shared left turn/through/right turn lane.

Northbound Approach: (S. Bedford Street) Existing one shared left turn/through/right turn lane.

Southbound Approach: (N. Bedford Street) Existing one shared left turn/through/right turn lane.

8. N. Bedford Street / Bridgeville Road (Sussex Road 18)

Type of Control: Existing two-way stop-controlled intersection (T-intersection)

Westbound Approach: (N. Bedford Street) Existing one shared left turn/right turn lane, stop controlled.

Northbound Approach: (N. Bedford Street) Existing one through lane and one channelized right turn lane.

Southbound Approach: (Bridgeville Road) Existing one shared left turn/through lane.

9. S. Bedford Street / Park Avenue (Sussex Road 318)

Type of Control: Existing two-way stop-controlled intersection (T-intersections)

Westbound Approach: (Park Avenue) Existing one left turn lane and one right turn lane, stop controlled.

Northbound Approach: (S. Bedford Street) Existing one shared left/through/right turn lane.

Southbound Approach: (S. Bedford Street) Existing one shared left turn/through lane and a bypass lane.

10. S. Bedford Street (Sussex Road 431) / Arrow Safety Road (Sussex Road 87)

Type of Control: Existing two-way stop-controlled intersection (T-intersection); proposed single-lane roundabout (four-legged)

Eastbound Approach: (Arrow Safety Road) Existing one shared left turn/right turn lane, stop controlled; proposed one shared left turn/through/right turn lane.

Westbound Approach: (Park Avenue) Proposed one shared left turn/through/right turn lane.

Northbound Approach: (S. Bedford Street) Existing shared one left turn/through lane, proposed one shared left turn/through/right turn lane.

Southbound Approach: (S. Bedford Street) Existing one through lane and one bypass lane, proposed one shared left turn/through/right turn lane.

Note: Park Avenue will be relocated across from Arrow Safety Road and the intersection will be converted to a single-lane roundabout as part of the *Park Avenue Relocation, Phase I* Project (Contract No. T202004601).

11. S. Bedford Street / Zoar Road (Sussex Road 48)

Type of Control: Existing two-way stop-controlled intersection (T-intersection)

Westbound Approach: (Zoar Road) Existing one shared left turn/right turn lane, stop controlled.

Northbound Approach: (S. Bedford Street) Existing one shared through/right turn lane.

Southbound Approach: (S. Bedford Street) Existing one shared left turn/through lane.

12. US Route 9 / S. King Street

Type of Control: Existing two-way stop-controlled intersection (four-legged)

Eastbound Approach: (US Route 9) Existing one shared left turn/through/right turn lane.

Westbound Approach: (US Route 9) Existing one shared left turn/through/right turn lane.

Northbound Approach: (S. King Street) Existing one shared left turn/through/right turn lane, stop controlled.

Southbound Approach: (S. King Street) Existing one shared left turn/through/right turn lane, stop controlled.

Transit, Pedestrian, and Bicycle Facilities

Existing transit service: Per DelDOT Gateway, Delaware Transit Corporation (DTC) currently provides existing services through the study area via DART Flex Route 901 and Fixed Routes 206 and 303. Per DelDOT Gateway, bus stops exist along US Route 9 at the intersection with Sand Hill Road/Airport Road and on S. Bedford Street south of the intersection with E. Pine Street/W. Pine Street. Route 901 is a Flex Route providing service within Georgetown operating weekdays from 6 AM to 8 PM. DART Route 206 provides 8 rounds trips and operates on Saturdays from 7 AM to 9:55 PM. DART Route 303 provides 7 round trips on weekdays from 6 AM and 7:10 PM.

Planned transit service: Per email correspondence on June 3, 2021 with Mr. Jared Kauffman, Planner for DART, transit improvements are not being requested in the area at this time.

Existing bicycle and pedestrian facilities: According to DelDOT's Sussex County Bicycle Map, a Statewide and two Regional Bicycle Routes exist within the study area. The Statewide Bicycle Route exists along N. Bedford Street and S. Bedford Street, and it traverses through 6 study intersections (US Route 9, Site Entrance B, Park Avenue, Arrow Safety Road, Bridgeville Road, and Zoar Road). One of the Regional Bicycle Routes exists along US Route 9 and it traverses through 6 study intersections (Shingle Point Road, Park Avenue, Sand Hill Road/Airport Road, Site Entrance A, S. Race Street/N. Race Street, N. Bedford Street/S. Bedford Street). The other Regional Bicycle Route exists along Bridgeville Road and traverses through one study intersection (N. Bedford Street).

Planned bicycle and pedestrian facilities: Per email correspondence dated June 15, 2021, from Mr. John Fiori, DelDOT's Bicycle Coordinator and Ms. Linda Osiecki, DelDOT's Pedestrian Coordinator, the following improvements were recommended:

- Referring to the State Strategies and Spending Map this site is within Level 1. Per the DelDOT SUP/Sidewalk Policy a non-motorized facility is required unless there is a physical impossibility. There is an existing brick sidewalk along East Market Street which shall remain or be replaced with a sidewalk. For the Town maintained streets, the Town of Georgetown will make the final determination concerning non-motorized facilities.
- If none already exist, recommend a bike rack be installed on the site. The final determination will be that of the Town of Georgetown.
- Local Systems Improvements has a bicycle/pedestrian improvement project near this site which is T201930001; Georgetown to Lewes Trail, Phase 8.
- At the corner of Market Street and Race Street, replace the diagonal with a type 3 curb ramp with the edges of the curb ramp opening aligned with the crossings
- For vehicle exits to Market Street, install stop signs.
- All entrance, roadway and/or intersection improvements required shall incorporate bicycle and pedestrian facilities. Per the DCM, if the right turn lane is warranted, then a separate bike lane shall be incorporated along the right turn lane; if a left turn lane is required any roadway improvements shall include a shoulder matching the roadway functional classification or existing conditions (minimum 5-feet).

Bicycle Level of Traffic Stress in Delaware: Researchers with the Mineta Transportation Institute developed a framework to measure low-stress connectivity, which can be used to evaluate and guide bicycle network planning. Bicycle LTS analysis uses factors such as the speed of traffic, volume of traffic, and the number of lanes to rate each roadway segment on a scale of 1 to 4, where 1 is a low-stress place to ride and 4 is a high-stress place to ride. It analyzes the total connectivity of a network to evaluate how many destinations can be accessed using low-stress routes. Developed by planners at the Delaware Department of Transportation (DelDOT), the bicycle Level of Traffic Stress (LTS) model will be applied to bicycle system planning and evaluation throughout the state. The Bicycle LTS for the roadways under existing conditions along the site frontage are summarized below. The Bicycle LTS was determined utilizing the map on the DelDOT Gateway.

- US Route 9 – LTS: 3
- E. Pine Street – LTS: 1
- S. Race Street – LTS: 1

Crash Evaluation

Per the crash data included in the TIS from December 18, 2017 to December 18, 2020 and provided by the Delaware Crash Analysis Reporting System, a total of 300 crashes were reported along Bedford Street between East Laurel Street and Zoar Road and along US Route 9 between Bedford Street and Shingle Point Road. Of the 300 crashes reported, 38 crashes were rear-end collisions, 56 were single vehicle incidents, 50 were angle crashes, 37 were sideswipe crashes, and 9 were other/unknown. 48 crashes resulted in injuries and no fatalities were reported within the study area.

Previous Comments

All comments from DelDOT for the Preliminary TIS (PTIS) were addressed in the Final TIS (FTIS).

General HCS Analysis Comments

(See table footnotes on the following pages for specific comments)

1. JMT utilized version 7.9.6 of HCS7, whereas the TIS utilized version 7.8.
2. Per DelDOT's *Development Coordination Manual*, JMT used a heavy vehicle percentage of 3% for each movement greater than 100 vph in the Case 2 and Case 3 future scenario analyses, unless the existing heavy vehicle percentage was greater than 3% and there was no significant increase of vehicles along that movement, in which case the existing heavy vehicle percentage was used for analysis of future scenarios, whereas the TIS utilized existing heavy vehicle percentages for all movements and all scenarios.
3. Per DelDOT's *Development Coordination Manual* and coordination with DelDOT Planning, JMT used a heavy vehicle percentage of 5% for each movement less than 100 vph along roadways and site entrances, whereas the TIS utilized the existing heavy vehicle percentage at all unsignalized intersections.
4. Per DelDOT's *Development Coordination Manual*, JMT utilized the existing PHF for the Case 1 scenario and a future PHF for Cases 2 and 3 scenarios of 0.80 for roadways with less than 500 vph, 0.88 for roadways between 500 and 1,000 vph, and 0.92 for roadways with more than 1,000 vph or the existing PHF, whichever was higher. The TIS utilized various PHFs.
5. Analysis includes the original intersections and analysis cases from the TIS, as well as the additional intersection and analysis case included in the TIS Addendum.

Table 2
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Unsignalized Intersection Two-Way Stop Control (T-intersection) ¹	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
Site Entrance A/US Route 9				
2023 with Development (Case 3) ²				
Eastbound US Route 9 Left Turn	A (9.1)	B (10.0)	A (9.1)	B (10.0)
Westbound US Route 9 Left Turn	B (10.7)	B (10.5)	B (10.7)	B (10.5)
Northbound Site Entrance A Approach	-	F (200.9)	C (17.2)	F (210.6)
Southbound Manlove Auto Parts Entrance Approach	-	-	B (13.3)	C (16.6)
2023 with Development (Case 3) <i>with rights-in/rights-out/lefts-in</i> ^{2, 3}				
Eastbound US Route 9 Left Turn	-	-	A (9.1)	B (10.0)
Westbound US Route 9 Left Turn	-	-	B (10.7)	B (10.5)
Northbound Site Entrance A Approach	-	-	C (17.2)	C (20.4)
Southbound Manlove Auto Parts Entrance Approach	-	-	B (13.3)	C (16.6)

¹ For signalized and unsignalized analysis, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.

² JMT included one right turn volume along the northbound and southbound approaches to generate results.

³ JMT conducted an additional analysis modeling Site Entrance A as a rights-in/rights-out/lefts-in access.

Table 2 (continued)
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Unsignalized Intersection Two-Way Stop Control (T-intersection) ¹	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
Site Entrance A/US Route 9				
2023 with Development (Case 3) with rights-in/rights-out only ^{2,4}				
Eastbound US Route 9 Left Turn	-	-	A (9.2)	B (10.0)
Northbound Site Entrance A Approach	-	-	C (17.2)	C (20.4)
Southbound Manlove Auto Parts Entrance Approach	-	-	B (13.8)	C (16.6)
2023 with Development and Addendum Distributions (Case 4) ⁵				
Eastbound US Route 9 Left Turn	A (9.1)	B (10.0)	A (9.1)	B (10.0)
Westbound US Route 9 Left Turn	B (10.2)	B (10.5)	B (10.7)	B (10.5)
Northbound Site Entrance A Approach	-	F (62.8)	C (16.8)	F (72.5)
Southbound Manlove Auto Parts Entrance Approach	-	-	B (13.3)	C (16.6)

⁴ JMT conducted an additional analysis modeling Site Entrance A as a rights-in/rights-out only access.

⁵ For site traffic utilizing Site Entrance A, a heavy vehicle % of 20 was utilized to reflect the entrance being used for deliveries.

Table 3
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Unsignalized Intersection Two-Way Stop Control ¹	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
Site Entrance B/E. Pine Street/ S. Bedford Street (Sussex Road 431)				
2020 Existing (Case 1)				
Eastbound W. Pine Street Approach	C (20.2)	C (16.2)	C (24.3)	C (16.3)
Westbound E. Pine Street (Site Entrance B) Approach	C (17.1)	C (20.0)	C (20.2)	C (20.0)
Northbound S. Bedford Street Left Turn	A (7.9)	A (7.9)	A (8.0)	A (8.0)
Southbound S. Bedford Street Left Turn	A (8.3)	A (8.2)	A (8.5)	A (8.3)
2023 without Development (Case 2)				
Eastbound W. Pine Street Approach	C (24.5)	C (19.4)	D (26.8)	C (19.6)
Westbound E. Pine Street (Site Entrance B) Approach	C (20.8)	D (26.7)	C (22.5)	D (26.7)
Northbound S. Bedford Street Left Turn	A (7.9)	A (8.2)	A (8.1)	A (8.3)
Southbound S. Bedford Street Left Turn	A (8.6)	A (8.4)	A (8.7)	A (8.5)
2023 with Development (Case 3)				
Eastbound W. Pine Street Approach	D (25.7)	C (19.7)	D (28.4)	C (19.9)
Westbound E. Pine Street (Site Entrance B) Approach	C (21.4)	E (41.5)	C (23.3)	E (41.4)
Northbound S. Bedford Street Left Turn	A (7.9)	A (8.2)	A (8.1)	A (8.3)
Southbound S. Bedford Street Left Turn	A (8.7)	A (8.4)	A (8.9)	A (8.5)

Table 3 (continued)
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Unsignalized Intersection Two-Way Stop Control ¹	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
Site Entrance B/E. Pine Street/ S. Bedford Street (Sussex Road 431)				
<i>2023 with Development (Case 3) with Site Entrance A rights-in/rights-out/lefts-in³</i>				
Eastbound W. Pine Street Approach	-	-	D (28.4)	C (20.5)
Westbound E. Pine Street (Site Entrance B) Approach	-	-	C (23.3)	E (45.8)
Northbound S. Bedford Street Left Turn	-	-	A (8.1)	A (8.3)
Southbound S. Bedford Street Left Turn	-	-	A (8.9)	A (8.5)
<i>2023 with Development (Case 3) with Site Entrance A rights-in/rights-out⁴</i>				
Eastbound W. Pine Street Approach	-	-	D (34.4)	C (20.5)
Westbound E. Pine Street (Site Entrance B) Approach	-	-	D (27.7)	E (45.8)
Northbound S. Bedford Street Left Turn	-	-	A (8.1)	A (8.3)
Southbound S. Bedford Street Left Turn	-	-	A (9.0)	A (8.5)
<i>2023 with Development (Case 3) with westbound right turn only restriction⁶</i>				
Eastbound W. Pine Street Approach	-	-	D (29.6)	D (26.9)
Westbound E. Pine Street (Site Entrance B) Approach	-	-	B (11.8)	C (15.2)
Northbound S. Bedford Street Left Turn	-	-	A (8.1)	A (8.7)
Southbound S. Bedford Street Left Turn	-	-	A (8.9)	A (8.5)

⁶ JMT conducted an additional analysis incorporating the restriction of left turn and through movements along the westbound Pine Street (Site Entrance B) approach. The vehicles were redirected north along Bedford Street, u-turned at the Bedford Street and US Route 9 traffic circle, and then rerouted through the intersection along southbound Bedford Street.

Table 3
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Unsignalized Intersection Two-Way Stop Control ¹	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
Site Entrance B/E. Pine Street/ S. Bedford Street (Sussex Road 431)				
2023 with Development and Addendum Distributions (Case 4)				
Eastbound W. Pine Street Approach	D (27.6)	C (19.9)	D (30.7)	C (20.1)
Westbound E. Pine Street (Site Entrance B) Approach	C (22.8)	E (40.2)	D (25.1)	E (40.1)
Northbound S. Bedford Street Left Turn	A (7.9)	A (8.2)	A (8.1)	A (8.3)
Southbound S. Bedford Street Left Turn	A (8.8)	A (8.4)	A (8.9)	A (8.5)

Table 4
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Signalized Intersection ¹	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
US Route 9/Sand Hill Road/Airport Road (Sussex Road 319)				
2020 Existing (Case 1)	-	-	F (95.1)	F (115.1)
2020 Existing (Case 1) <i>with Signal Optimization</i> ^{7, 8, 9}	C (24.3)	C (30.4)	E (72.1)	F (80.2)
2023 Without Development (Case 2) <i>with DelDOT Improvement Project</i> ^{8, 10}	C (29.3)	C (32.4)	D (37.9)	D (46.9)
2023 With Development (Case 3) <i>with DelDOT Improvement Project</i> ^{8, 10}	C (29.7)	C (32.7)	D (38.6)	D (47.6)

⁷ Signal optimization scenario includes optimizing splits and utilizing a cycle length of 120 seconds during the AM and PM peak hours.

⁸ The TIS modeled the intersection with two left turn lanes, one through lane, and one right turn lane along the eastbound approach, one left turn lane, one through lane, and one right turn lane along the westbound approach, and one shared left turn/through lane and one right turn lane along the northbound and southbound approaches.

⁹ JMT modeled the intersection with one left turn lane and one shared through/right turn lane along the eastbound and westbound approaches, and one shared left turn/through/right turn lane along the northbound and southbound approaches, per existing conditions.

¹⁰ This scenario incorporates improvements planned as part of the DelDOT *Georgetown East Gateway Improvements* project (Contract No. T201804301) per the Signal Plan dated January 5, 2021. These improvements include the provision of two left turn lanes, one through lane, and one right turn lane along the eastbound approach, and one left turn lane, one through lane, and one right turn lane along the westbound, northbound, and southbound approaches. The northbound and southbound approaches were modeled as concurrent phases with protected-only left turn phases. The eastbound and westbound approaches were modeled with lagging, protected-only left turn phases. A cycle length of 120 seconds was utilized for the AM and PM peak hours.

Table 5
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Signalized Intersection ¹	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
US Route 9/Park Avenue (Sussex Road 321) ¹¹				
2020 Existing (Case 1)	-	-	F (495.1)	F (337.6)
2020 Existing (Case 1) with Signal Optimization ¹²	A (9.2)	A (9.0)	E (72.8)	E (60.8)
2023 without Development (Case 2)	-	-	F (725.7)	F (660.1)
2023 without Development (Case 2) with Signal Optimization ¹²	-	-	F (120.2)	F (133.3)
2023 without Development (Case 2) with DelDOT Improvement Project ¹³	A (9.7)	B (11.8)	A (9.4)	A (9.9)
2023 with Development (Case 3)	-	-	F (762.9)	F (778.6)
2023 with Development (Case 3) with Signal Optimization ¹²	-	-	F (127.7)	F (141.1)
2023 with Development (Case 3) with DelDOT Improvement Project ¹³	A (9.7)	B (12.3)	A (9.4)	B (10.0)

¹¹ The TIS modeled the intersection with one shared left turn/through lane along the eastbound approach, one left turn lane and one right turn lane along the westbound approach, and one left turn lane and one right turn lane along the northbound approach for all cases, whereas JMT modeled the intersection with existing lane configurations during Case 1.

¹² Signal optimization scenario includes optimizing splits. JMT utilized a cycle length of 120 seconds during the AM and PM peak hours, whereas the TIS utilized various cycle lengths.

¹³ This scenario incorporates improvements planned as part of the DelDOT *Park Avenue Relocation, Phase 2* project (Contract No. T201904601). These improvements include the provision of one through lane and one right turn lane along the eastbound US Route 9 approach, one left turn lane and one through lane along the westbound US Route 9 approach, and one left turn lane and one channelized right turn lane with an acceleration lane along the northbound Park Avenue approach.

Table 6
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Unsignalized Intersection Two-Way Stop Control ¹	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
US Route 9/Shingle Point Road (Sussex Road 249) ¹⁴				
2020 Existing (Case 1)				
Eastbound US Route 9 Left Turn	B (10.1)	B (11.1)	B (10.0)	B (11.1)
Westbound US Route 9 Left Turn	B (10.3)	A (8.9)	A 9.2)	A (9.0)
Northbound French Road Approach	E (40.3)	D (29.3)	B (13.8)	B (12.9)
Southbound Shingle Point Road Approach	C (22.5)	D (30.6)	C (22.5)	D (30.7)
2023 without Development (Case 2)				
Eastbound US Route 9 Left Turn	B (10.4)	B (12.2)	B (10.3)	B (12.2)
Westbound US Route 9 Left Turn	B (10.8)	A (9.3)	A (9.6)	A (9.4)
Northbound French Road Approach	F (50.1)	E (42.2)	B (14.9)	B (14.2)
Southbound Shingle Point Road Approach	D (26.1)	E (48.9)	D (25.9)	E (48.7)

¹⁴ JMT utilized volumes according to the volume diagrams approved by DelDOT (with the exception of adding one right turn volume along the northbound French Road approach to generate results), whereas the TIS did not.

Table 6 (continued)
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Unsignalized Intersection Two-Way Stop Control ¹	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
US Route 9/Shingle Point Road (Sussex Road 249)¹⁴				
<i>2023 without Development (Case 2) with DelDOT Improvement Project¹⁵</i>				
Eastbound US Route 9 Left Turn	-	-	B (10.3)	B (12.0)
Westbound US Route 9 Left Turn	-	-	A (9.6)	A (9.4)
Northbound French Road Approach	-	-	B (15.0)	B (14.2)
Southbound Shingle Point Road Approach	-	-	C (22.5)	D (32.8)
<i>2023 with Development (Case 3)</i>				
Eastbound US Route 9 Left Turn	B (10.5)	B (12.3)	B (10.5)	B (12.3)
Westbound US Route 9 Left Turn	B (10.8)	A (9.4)	A (9.6)	A (9.5)
Northbound French Road Approach	F (52.0)	E (46.4)	B (15.0)	B (14.5)
Southbound Shingle Point Road Approach	D (28.2)	F (53.1)	D (27.9)	F (52.7)
<i>2023 with Development (Case 3) with DelDOT Improvement Project¹⁵</i>				
Eastbound US Route 9 Left Turn	-	-	B (10.4)	B (12.2)
Westbound US Route 9 Left Turn	-	-	A (9.6)	A (9.5)
Northbound French Road Approach	-	-	B (15.0)	B (14.5)
Southbound Shingle Point Road Approach	-	-	C (23.9)	D (33.9)

¹⁵ This scenario incorporates improvements planned as part of the DelDOT *Park Avenue Relocation, Phase 2* project (Contract No. T201904601). These improvements include the provision of one left turn lane and one shared through/right turn lane along the eastbound US Route 9 approach, one shared left turn/through lane and one channelized right turn lane along the westbound US Route 9 approach, and one shared left turn/through lane and one right turn lane along the southbound Shingle Point Road Approach.

Table 7
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Signalized Intersection ¹	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2020 Existing (Case 1) ¹⁶	-	-	C (30.4)	C (20.4)
2020 Existing (Case 1) with Signal Optimization ¹⁷	A (6.6)	A (7.2)	A (7.9)	A (7.2)
2023 without Development (Case 2) ¹⁶	-	-	C (24.7)	C (33.6)
2023 without Development (Case 2) with Signal Optimization ¹⁷	A (6.6)	A (7.5)	A (7.2)	A (8.7)
2023 with Development (Case 3) ¹⁶	-	-	C (31.6)	D (37.3)
2023 with Development (Case 3) with Signal Optimization ¹⁷	A (6.7)	A (7.4)	A (7.9)	A (9.0)
2023 with Development (Case 3) with Signal Optimization and Site Entrance A rights-in/rights-out/lefts-in ^{3, 17}	-	-	A (7.9)	A (8.7)
2023 with Development (Case 3) with Signal Optimization and Site Entrance A rights-in/rights-out ^{4, 17}	-	-	A (7.9)	A (8.7)
2023 with Development and Addendum Distributions (Case 4)	-	-	C (30.6)	C (34.0)
2023 with Development and Addendum Distributions (Case 4) with Signal Optimization ¹⁷	A (6.7)	A (7.7)	A (7.8)	A (9.0)

¹⁶ JMT modeled the intersection utilizing MAX 1 Timers per direction from DelDOT.

¹⁷ Signal optimization scenario includes optimizing splits. JMT utilized a cycle length of 60 seconds during the AM and PM peak hours, whereas the TIS utilized various cycle lengths.

Table 8
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Unsignalized Intersection Roundabout ^{1, 18}	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
US Route 9/ N. Bedford Street (Sussex Road 18)/S. Bedford Street ¹⁹				
2020 Existing (Case 1)				
Eastbound US Route 9 Approach	C (18.7)	C (15.2)	F (89.0)	E (35.2)
Westbound US Route 9 Approach	B (11.3)	C (15.6)	D (33.5)	F (124.3)
Northbound S. Bedford Street Approach	B (13.1)	C (17.0)	D (25.5)	F (54.1)
Southbound N. Bedford Street Approach	B (14.6)	C (15.1)	F (70.3)	E (48.5)
2023 without Development (Case 2)				
Eastbound US Route 9 Approach	C (22.7)	D (28.5)	F (84.3)	F (110.5)
Westbound US Route 9 Approach	B (14.2)	D (25.0)	E (47.6)	F (216.2)
Northbound S. Bedford Street Approach	C (16.5)	D (30.5)	E (37.2)	F (125.8)
Southbound N. Bedford Street Approach	C (18.8)	D (27.2)	F (78.8)	F (134.8)

¹⁸ JMT utilized a critical headway of 4.94 seconds and a follow up headway of 3.40 seconds per a gap study conducted in June 2021, whereas the TIS utilized a critical headway of 4.60 seconds and various follow up headways.

¹⁹ Due to the geometry of the roundabout, both JMT and the TIS modeled the intersection as four two-way stop-controlled intersections.

Table 8 (continued)
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Unsignalized Intersection Roundabout ^{1, 18}	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
US Route 9/ N. Bedford Street (Sussex Road 18)/S. Bedford Street ¹⁹				
2023 with Development (Case 3)				
Eastbound US Route 9 Approach	D (27.5)	D (28.5)	F (113.5)	F (110.5)
Westbound US Route 9 Approach	B (14.2)	D (32.3)	E (47.6)	F (254.8)
Northbound S. Bedford Street Approach	C (18.2)	D (34.0)	E (45.3)	F (143.3)
Southbound N. Bedford Street Approach	C (20.9)	D (29.6)	F (98.7)	F (144.5)
2023 with Development (Case 3) with Site Entrance B right turn only restriction ²⁰				
Eastbound US Route 9 Approach	-	-	F (127.7)	F (162.5)
Westbound US Route 9 Approach	-	-	F (55.2)	F (330.8)
Northbound S. Bedford Street Approach	-	-	F (57.2)	F (242.9)
Southbound N. Bedford Street Approach	-	-	F (112.3)	F (200.2)
2023 with Development (Case 3) with Site Entrance A rights-in/right-out only/lefts-in ³				
Eastbound US Route 9 Approach	-	-	F (127.7)	F (110.5)
Westbound US Route 9 Approach	-	-	F (55.2)	F (254.0)
Northbound S. Bedford Street Approach	-	-	F (57.2)	F (176.6)
Southbound N. Bedford Street Approach	-	-	F (112.3)	F (144.5)

²⁰ JMT conducted an additional analysis incorporating the restriction of the westbound Site Entrance B (E. Pine Street) approach to Bedford Street to be right turns only.

Table 8 (continued)
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Unsignalized Intersection Roundabout^{1, 18}	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
US Route 9/ N. Bedford Street (Sussex Road 18)/S. Bedford Street ¹⁹				
<i>2023 with Development (Case 3) with Site Entrance A rights-in/right-out only ⁴</i>				
Eastbound US Route 9 Approach	-	-	F (131.6)	F (110.5)
Westbound US Route 9 Approach	-	-	F (60.4)	F (254.0)
Northbound S. Bedford Street Approach	-	-	E (45.3)	F (176.6)
Southbound N. Bedford Street Approach	-	-	F (116.0)	F (144.5)
<i>2023 with Development and Addendum Distribution (Case 4)</i>				
Eastbound US Route 9 Approach	-	-	F (113.9)	F (111.8)
Westbound US Route 9 Approach	-	-	E (47.6)	F (256.8)
Northbound S. Bedford Street Approach	-	-	E (43.8)	F (149.7)
Southbound N. Bedford Street Approach	-	-	F (99.3)	F (146.0)

Table 9
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Unsignalized Intersection Two-Way Stop Control (T-intersection) ¹	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
N. Bedford Street/Bridgeville Road (Sussex Road 18)				
2020 Existing (Case 1)				
Westbound N. Bedford Street Approach	F (87.6)	F (186.3)	F (152.2)	F (248.3)
Southbound Bridgeville Road Left Turn	A (8.8)	B (10.3)	A (8.7)	B (10.7)
2023 without Development (Case 2)				
Westbound N. Bedford Street Approach	F (141.0)	F (434.8)	F (146.9)	F (450.6)
Southbound Bridgeville Road Left Turn	A (9.1)	B (10.7)	A (9.0)	B (10.9)
2023 with Development (Case 3)				
Westbound N. Bedford Street Approach	F (179.6)	F (456.3)	F (185.6)	F (472.7)
Southbound Bridgeville Road Left Turn	A (9.1)	B (10.9)	A (9.0)	B (11.1)

Table 9 (continued)
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Roundabout ¹	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
N. Bedford Street/Bridgeville Road (Sussex Road 18) ²¹				
2023 without Development (Case 2)				
Westbound N. Bedford Street Approach	-	-	A (9.8)	B (13.0)
Northbound N. Bedford Street Approach	-	-	A (8.6)	C (18.6)
Southbound Bridgeville Road Approach	-	-	B (12.3)	B (13.5)
Overall	-	-	B (10.2)	C (16.1)
2023 with Development (Case 3)				
Westbound N. Bedford Street Approach	-	-	B (10.2)	B (13.4)
Northbound N. Bedford Street Approach	-	-	A (8.6)	C (20.7)
Southbound Bridgeville Road Approach	-	-	B (13.4)	B (13.5)
Overall	-	-	B (10.7)	C (17.4)

²¹ JMT conducted an additional analysis modeling the intersection as a single-lane roundabout.

Table 9 (continued)
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Signalized Intersection ¹	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
N. Bedford Street/Bridgeville Road (Sussex Road 18) ²²				
2023 without Development (Case 2)	-	-	B (13.8)	B (14.8)
2023 with Development (Case 3)	-	-	B (14.6)	B (14.9)

²² JMT conducted an additional analysis modeling the intersection as a signalized intersection with a 60 second cycle length.

Table 10
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Unsignalized Intersection Two-Way Stop Control (T-intersection) ¹	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
S. Bedford Street/Park Avenue (Sussex Road 318) ²³				
2020 Existing (Case 1)				
Westbound Park Avenue Approach	-	-	F (60.7)	D (33.6)
Southbound S. Bedford Street Left Turn	-	-	A (9.4)	A (8.8)
2023 without Development (Case 2)				
Westbound Park Avenue Approach	-	-	F (76.1)	F (80.5)
Southbound S. Bedford Street Left Turn	-	-	A (9.7)	A (9.1)
2023 without Development (Case 2) with <i>DelDOT Improvement Project</i> ²⁴				
Westbound Park Avenue Approach	-	-	B (13.5)	B (13.7)
Southbound S. Bedford Street Left Turn	-	-	A (8.4)	A (8.1)
2023 with Development (Case 3)				
Westbound Park Avenue Approach	-	-	F (87.1)	F (90.3)
Southbound S. Bedford Street Left Turn	-	-	A (9.9)	A (9.1)

²³ TIS did not provide analysis of the intersection.

²⁴ JMT conducted analysis incorporating volume reductions anticipated due to the termination of Park Avenue west of the Norfolk Southern railroad crossing as part of the *Park Avenue Relocation, Phase 1* project (Contract No. T202004601).

Table 10 (continued)
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Unsignalized Intersection Two-Way Stop Control (T-intersection) ^{1, 23}	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
S. Bedford Street/Park Avenue (Sussex Road 318)				
2023 with Development (Case 3) with <i>DelDOT Improvement Project</i> ²⁴				
Westbound Park Avenue Approach	-	-	B (13.9)	B (14.0)
Southbound S. Bedford Street Left Turn	-	-	A (8.5)	A (8.1)

Table 11
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Unsignalized Intersection Two-Way Stop Control (T-intersection) ¹	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
S. Bedford Street/Arrow Safety Road (Sussex Road 87)²⁵				
2020 Existing (Case 1)				
Eastbound Arrow Safety Road Approach	-	-	C (23.3)	C (16.9)
Northbound S. Bedford Street Left Turn	-	-	A (8.7)	A (8.7)
2023 without Development (Case 2)				
Eastbound Arrow Safety Road Approach	-	-	D (25.9)	C (21.0)
Northbound S. Bedford Street Left Turn	-	-	A (8.9)	A (8.9)
2023 with Development (Case 3)				
Eastbound Arrow Safety Road Approach	-	-	D (27.2)	C (22.0)
Northbound S. Bedford Street Left Turn	-	-	A (8.9)	A (9.0)

²⁵ The TIS did not conduct an analysis with the existing lane configuration and stop-control.

Table 11 (continued)
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Roundabout ¹	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
S. Bedford Street/Arrow Safety Road (Sussex Road 87)/Park Avenue				
<i>2023 without Development (Case 2) with DelDOT Improvement project²⁶</i>				
Eastbound Arrow Safety Road Approach	A (8.4)	A (9.6)	A (8.5)	A (9.8)
Westbound Park Avenue Approach	B (12.5)	A (9.3)	B (13.1)	B (10.5)
Northbound S. Bedford Street Approach	B (14.9)	A (9.9)	C (16.6)	B (11.2)
Southbound S. Bedford Street Approach	B (12.8)	B (13.5)	B (12.7)	B (13.9)
Overall	B (13.4)	B (11.3)	B (14.1)	B (12.0)
<i>2023 with Development (Case 3) with DelDOT Improvement project²⁶</i>				
Eastbound Arrow Safety Road Approach	A (8.4)	B (10.0)	A (8.5)	B (10.3)
Westbound Park Avenue Approach	B (13.3)	A (9.3)	B (14.0)	B (10.5)
Northbound S. Bedford Street Approach	C (16.3)	A (11.2)	C (18.4)	B (11.2)
Southbound S. Bedford Street Approach	B (12.8)	B (14.6)	B (12.7)	C (15.2)
Overall	B (14.2)	B (11.9)	C (15.1)	B (12.6)

²⁶ As part of the DelDOT *Park Avenue Relocation, Phase I* project (Contract No. T202004601), Park Avenue will be realigned to intersect S. Bedford Street directly across from Arrow Safety Road. The intersection will be converted to a single-lane roundabout.

Table 12
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Unsignalized Intersection Two-Way Stop Control (T-intersection) ¹	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
S. Bedford Street/Zoar Road (Sussex Road 48)				
2020 Existing (Case 1)				
Westbound Zoar Road Approach	C (15.2)	B (12.8)	B (14.2)	A (9.9)
Southbound S. Bedford Street Left Turn	A (8.5)	A (8.4)	A (8.7)	A (8.4)
2023 without Development (Case 2)				
Westbound Zoar Road Approach	C (16.3)	B (13.8)	B (13.6)	B (10.4)
Southbound S. Bedford Street Left Turn	A (8.6)	A (8.6)	A (8.6)	A (8.6)
2023 with Development (Case 3)				
Westbound Zoar Road Approach	C (17.4)	B (14.1)	B (14.4)	B (10.4)
Southbound S. Bedford Street Left Turn	A (8.7)	A (8.6)	A (8.7)	A (8.6)

Table 13
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Unsignalized Intersection Two-Way Stop Control (T-intersection) ¹	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
US Route 9/King Street				
2021 Existing (Case 1)				
Eastbound US Route 9 Left Turn	A (8.3)	A (8.7)	A (8.3)	A (8.8)
Westbound US Route 9 Left Turn	A (8.6)	A (8.6)	A (8.6)	A (8.6)
Northbound King Street Approach	B (13.9)	C (22.8)	B (14.0)	C (22.9)
Southbound King Street Approach	C (19.3)	C (23.4)	C (19.3)	C (23.4)
2023 without Development (Case 2)				
Eastbound US Route 9 Left Turn	A (8.6)	A (9.1)	A (8.6)	A (9.2)
Westbound US Route 9 Left Turn	A (8.8)	A (9.1)	A (8.9)	A (9.2)
Northbound King Street Approach	C (15.4)	D (33.6)	C (15.5)	E (36.5)
Southbound King Street Approach	C (23.6)	E (36.1)	C (23.7)	E (36.7)
2023 with Development and Addendum Distributions (Case 4)				
Eastbound US Route 9 Left Turn	A (8.6)	A (9.1)	A (8.7)	A (9.2)
Westbound US Route 9 Left Turn	A (8.9)	A (9.2)	A (9.0)	A (9.3)
Northbound King Street Approach	C (16.0)	D (33.9)	C (16.1)	D (34.7)
Southbound King Street Approach	D (26.0)	E (38.6)	D (26.1)	E (39.8)

Table 13 (continued)
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Roundabout ¹	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
US Route 9/King Street ²⁷				
2023 without Development (Case 2)				
Eastbound US Route 9 Approach	-	-	A (7.8)	A (9.3)
Westbound US Route 9 Approach	-	-	A (7.0)	A (9.6)
Northbound King Street Approach	-	-	A (5.8)	A (7.0)
Southbound King Street Approach	-	-	A (5.6)	A (6.7)
Overall	-	-	A (7.3)	A (9.2)
2023 with Development and Addendum Distributions (Case 4)				
Eastbound US Route 9 Approach	-	-	A (8.0)	A (9.5)
Westbound US Route 9 Approach	-	-	A (7.4)	A (9.6)
Northbound King Street Approach	-	-	A (5.8)	A (7.6)
Southbound King Street Approach	-	-	A (5.8)	A (6.7)
Overall	-	-	A (7.8)	A (9.3)

²⁷ JMT conducted an additional analysis modeling the intersection as a single-lane roundabout.

Table 13 (continued)
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Sussex County Family Courts
Report Dated: May 2021
Prepared by Duffield Associates, LLC

Signalized Intersection ¹	LOS per TIS		LOS per JMT	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
US Route 9/King Street ²⁸				
2023 without Development (Case 2)	-	-	A (8.5)	B (10.6)
2023 with Development and Addendum Distributions (Case 4)	-	-	A (8.8)	B (10.9)

²⁸ JMT conducted an additional analysis modeling the intersection as a signalized intersection with a 60 second cycle length.

Avigation Nuisance Easement & Non-Suit Covenant

This indenture made this _____ day of _____, 20____, by and between _____, hereinafter referred to as Grantor, and _____ hereinafter referred to as Grantee, witnesseth:

WHEREAS the Grantor is the owner in fee of a certain parcel of land (“the Property”) in the County of _____, State of Delaware; and

WHEREAS said parcel of land is near or adjacent to _____, an operating airport (“Airport”); and

WHEREAS the Grantee is the owner of said airport; and

WHEREAS the Grantor proposes to make a use of said Property and to develop thereon the following:

, which use and development require approval by Municipal and County authorities subject to the applicable provisions of law; and

WHEREAS the Grantor has been advised that the subject Property is located adjacent to the Airport; that the present and future impacts of Airport operations might be considered annoying to users of the Property for its stated purpose and might interfere with the unrestricted use and enjoyment of the Property in its intended use; that these Airport impacts might change over time, for example and not by way of limitation by an increase in the number of aircraft using the Airport, louder aircraft, seasonal variations, and time-of-day variations; that changes in Airport, air traffic control operating procedures or in Airport layout could result in increased noise impacts; and that the Grantor’s and users’ own personal perceptions of the noise exposure could change and that his or her sensitivity to aircraft noise could increase;

NOW, THEREFORE, for and in consideration of the mutual covenants, agreements and conditions contained herein, the parties hereto agree as follows:

Grantor does hereby grant a permanent nuisance and avigation easement (“Easement”) to Grantee over all of the following described real estate:

By virtue of this agreement, the Grantor, for and on behalf of himself and all successors in interest to any and all of the real property above described, waives as to Grantee or any successor agency legally authorized to operate said airport, any and all claims for damage of any kind whatsoever incurred as a result of aircraft using the Easement granted herein regardless of any future changes in volume or character of aircraft overflights, or changes in airport design and operating policies, or changes in air traffic control procedures.

The Grantor, for and on behalf of himself and all successors in interest to any and all of the real property above described, does further hereby covenant and agree with the Grantee, its successors and assigns, that it will not, from and after the effective date hereof, sue, prosecute, molest, or trouble the Grantee, its successors and assigns, in

These covenants and agreements shall run with the land of the Grantor, as hereinabove described, for the benefit of the Grantee, and its successors and assigns in the ownership, use and operation of the aforesaid Airport.

Grantee, its successors and assigns, shall have and hold said Easement and all rights appertaining thereto until said Airport shall be abandoned and shall cease to be used for airport purposes.

If any provision of this Easement or any amendments hereto, or the application thereof to any person, thing or circumstances is held invalid, such invalidity shall not affect the provisions or application of this Easement or such amendments that can be given effect without the invalid provisions or application, and to this end the provisions of this Easement and such amendments are declared to be severable.

IN WITNESS WHEREOF, the Grantor has hereunto set its hand and seal the day and year first above written.

_____(SEAL)

_____(SEAL)

NOTARY ACKNOWLEDGEMENT

STATE OF DELAWARE

ss.

COUNTY OF KENT

BE IT REMEMBERED that on this ____ day of _____, 20____ personally, came before me, the subscriber, a Notary Public for the State and County aforesaid, _____, party(ies) to this Indenture, known to me personally to be such, and acknowledged this Indenture, to his/her (their) act or deed.

GIVEN under my Hand and Seal of office the day and year first above written.

Notary Public, State of Delaware

My Commission Expires _____