STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
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DOVER, DELAWARE 19903

SHANTÉ A. HASTINGS
SECRETARY

February 6, 2025

Ms. AnnMarie Vigilante
Langan
2700 Kelly Road, Suite 200
Warrington, PA 18976-3653

Dear Ms. Vigilante,

The enclosed Traffic Impact Study (TIS) review letter for the **LogistiCenter at New Castle** (Tax Parcel: 1300800003) industrial 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 performed 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 Annamaria.Furmato@delaware.gov.

Sincerely,

Annamaria Furmato
TIS Group Project Engineer

AF:km
Enclosures
cc with enclosures: James Mascaro, Dermody Properties
Briana Pampuch, Langan
David L. Edgell, Office of State Planning Coordination
Antoni Sekowski, New Castle County Department of Land Use
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DelDOT

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Michael White, New Castle Subdivision Engineer, Development Coordination, Planning
Sireen Muhtaseb, TIS Group Manager, Development Coordination, Planning
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February 6, 2025

Ms. Sireen Muhtaseb
TIS Group Manager
Delaware Department of Transportation
Development Coordination, Division of Planning
800 Bay Road
Dover, DE 19901

RE: Agreement No: 2098F
TIS Support Services – T202569002
Task Name: 7: LogistiCenter at New Castle TIS
JMT No.: 23-02560-007

Dear Ms. Muhtaseb:

Johnson, Mirmiran, and Thompson (JMT) has completed the Traffic Impact Study (TIS) for the LogistiCenter at New Castle development. This TIS was assigned as Task Number 7. The report is prepared in a manner generally consistent with DelDOT's *Development Coordination Manual* and other Department standards.

The TIS evaluates the impacts of a proposed development consisting of 2,371,850 square feet of warehousing space on a 229.43-acre parcel (Tax Parcel: 13-008.00-003) in New Castle County, Delaware. The proposed development is located on the west side of Jamison Corner Road (New Castle Road 413). The land is currently zoned as Business Park (BP), and the developer does not plan to rezone the land.

Three access points are proposed on Jamison Corner Road, two full access and one rights-in/rights-out. The two full access points proposed along Jamison Corner Road would be directly across from the full access points for the proposed Scott Run Commerce Center. The Scott Run Commerce Center is proposed on a 118.28-acre parcel (Tax Parcel: 13-008.00-007) and would be a mixed-use development comprised of a 5,600 square foot convenience store with fueling station and 1,462,450 square feet of warehouse. Construction of the LogistiCenter at New Castle site is anticipated to be complete in 2027. Construction of the Scott Run Commerce Center is unknown at this time.

The proposed development is located within the Southern New Castle County (SNCC) Transportation Improvement District (TID) and the developer is required to participate in the TID. Although the proposed land use is consistent with the TID land use assumptions, New Castle County has requested that a TIS be completed.

Relevant and On-Going Projects and Studies

The *N412, Lorewood Grove Road, Jamison Corner Rd to SR 1* project (DelDOT Project No. T200712006) aims to improve traffic safety and operations along Lorewood Grove Road between Jamison Corner Road and Delaware Route 1. The project will add shoulders on both sides of the

roadway and a multi-use path on one side of the roadway. The project is currently in the planning/design phase. More information regarding the project can be found at the following website: https://deldot.gov/projects/index.shtml?dc=details&projectNumber=T200712006.

Additionally, along Jamison Corner Road, DelDOT is in the process of updating the speed limit between Boyds Corner Road and Lorewood Grove Road to 40 miles per hour. Currently, speed limits of 35 miles per hour and 25 miles per hour are posted along different sections of Jamison Corner Road. However, based on a traffic engineering study performed by DelDOT, the posted speed limit along the entirety of Jamison Corner Road will be modified to 40 miles per hour. The TIS for the LogistiCenter at New Castle development incorporates the modified speed limit within the traffic analysis.

The *Cedar Lane, Marl Pit Road to Boyds Corner Road* project (DelDOT Project No. T200712005) proposes to widen Cedar Lane Road from Marl Pitt Road to Boyds Corner Road to provide shoulders, bicycle and pedestrian facilities, and replacement of two bridges. The project was in the planning/design phase but has been placed on hold indefinitely. More information regarding the project can be found at the following website: https://deldot.gov/projects/index.shtml?dc=details&projectNumber=T200712005.

The *Boyds Corner Road, Cedar Lane Road to US Route 13* project (DelDOT Project No. T200712002) will improve Boyds Corner Road to four lanes with a median, shoulders, and a multi-use path on each side of the roadway. The area of New Castle County just below the C & D Canal is expected to experience added congestion and safety issues. This project is part of a Master Plan for improvements in this growing area. The project is currently in the design phase with construction tentatively scheduled to begin in Fiscal Year 2028. As part of the design, multilane roundabouts are proposed at four intersections including the following three study intersections: Boyds Corner Road and Shallcross Lake Road/Milford Drive, Boyds Corner Road and Bayberry Parkway, and Boyds Corner Road and Boyds Farm Drive. A multi-lane roundabout is also proposed at the Boyds Corner Road intersection with the Bayberry Town Center driveway but was not included in the scope of this TIS. Intersection improvements are also proposed at the Boyds Corner Road intersection with Jamison Corner Road and Cedar Lane Road. Specifically, the eastbound and westbound Boyds Corner Road approaches would provide two left turn lanes, two through lanes, and one right turn lane and the northbound Cedar Lane Road and southbound Jamison Corner Road approaches would provide one left turn lane, two through lanes, and one right turn lane. More information regarding the project can be found at the following website: https://deldot.gov/projects/index.shtml?dc=details&projectNumber=T200712002.

The St. George's Bridge Closure and Rehabilitation Project included improvements to the structural condition and travel lanes of the bridge. The St. Georges Bridge along the C & D Canal was closed for construction in April of 2023 and reopened in mid-October of 2024. As it was anticipated that drivers would gradually return to their pre-closure travel patterns and traffic volumes would take a few weeks to return to their typical values prior to the bridge closure, JMT utilized historical traffic count data from previous TIS reports, the Southern New Castle County TID, and other DelDOT projects in the study area to develop traffic volumes used for the LogistiCenter at New Castle TIS.

The proposed development is located within the Southern New Castle County (SNCC) TID. The SNCC TID project area encompasses approximately 18 square miles and is bordered to the north by the C&D Canal, to the east by US Route 13 and Delaware Route 1, to the west by US Route 301/Delaware Route 71, and to the south by Marl Pit Road. The SNCC TID analyzed and recommended improvements at 17 intersections with significant development expected over the next 20 years within the project area. As part of the SNCC TID report, intersection improvements were recommended at the TIS study intersections of Jamison Corner Road with the US 301 ramps and Lorewood Grove Road. More details of the TIDs are available on the DelDOT website at the following link: https://deldot.gov/Programs/transportation-improvement-districts/index.shtml.

Summary of Analysis Results

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

The New Castle County Level of Service (LOS) Standards as stated in Section 40.11.210 of the Unified Development Code (UDC) apply to all signalized, all-way-stop, and roundabout intersections. Based on an evaluation of the roundabout and signalized intersections, five of them (Intersection numbers 6, 7, 10, 13 and 16) exhibit LOS deficiencies and will require the implementation of physical roadway and/or traffic control improvements per both DelDOT and UDC criteria. Most of the deficiencies would be improved through the TID program and are discussed in more detail below. Additionally, separate from the UDC but based on the LOS evaluation criteria as stated in DelDOT's Development Coordination Manual, eight of the study intersections (Intersection numbers 1, 3, 8, 9, 11, 12, 14, and 15) exhibit LOS deficiencies.

The analysis contained within the TIS and summarized in the table below does take into account the build out of the Scott Run Commerce Center. JMT also conducted a separate Traffic Signal Justification Study (TSJS) which evaluated Site Entrances 1 and 3.

The following table summarizes the study intersections identified to have LOS deficiencies based on the results from the TIS:

Intersection	SNCC TID Location	LOS Deficiencies Occur		Case
		AM	PM	
1) Jamison Corner Road (New Castle Road 413) / Site Entrance 1	No	X	X	Case 2 – 2027 without development
		X	X	Case 3 – 2027 with development
3) Jamison Corner Road / Site Entrance 3	No	X	X	Case 2 – 2027 without development
		X	X	Case 3 – 2027 with development

6) Jamison Corner Road / Lorewood Grove Road (New Castle Road 412)	Yes	-	X	Case 3 – 2027 with development
7) Jamison Corner Road / Boyds Corner Road (New Castle Road 015) / Cedar Lane Road (New Castle Road 427)	Yes	X	X	Case 2 – 2027 without development
		X	X	Case 3 – 2027 with development
8) Boyds Corner Road / Ratledge Road (New Castle Road 414)	Yes	X	-	Case 1 – 2024 Existing
		X	X	Case 2 – 2027 without development
		X	X	Case 3 – 2027 with development
9) Boyds Corner Road / Whispering Woods Road	No	X	X	Case 2 – 2027 without development
		X	X	Case 3 – 2027 with development
10) Boyds Corner Road / Summit Bridge Road (New Castle Road 039) / Summit Bridge Road (New Castle Road 016) / Churchtown Road (New Castle Road 432)	No	X	-	Case 2 – 2027 without development
		X	-	Case 3 – 2027 with development
11) Cedar Lane Road and Cedar Lane Elementary School	No	X	X	Case 1 – 2024 Existing
		X	X	Case 2 – 2027 without development
		X	X	Case 3 – 2027 with development
12) Cedar Lane Road and MOT Charter High School	No	X	-	Case 1 – 2024 Existing
		X	X	Case 2 – 2027 without development
		X	X	Case 3 – 2027 with development
13) Boyds Corner Road / Bayberry Parkway	No	X	X	Case 2 – 2027 without development
		X	X	Case 3 – 2027 with development
14) Boyds Corner Road / Shallcross Lake Road (New Castle Road 428) / Milford Drive	Yes	X	X	Case 1 – 2024 Existing
		X	X	Case 2 – 2027 without development
		X	X	Case 3 – 2027 with development

15) Boyds Corner Road / Boyds Farm Drive	No	X	X	Case 1 – 2024 Existing
		X	X	Case 2 – 2027 without development
		X	X	Case 3 – 2027 with development
16) Boyds Corner Road / Pole Bridge Road (New Castle Road 420) / US Route 13	No*	X	X	Case 2 – 2027 without development
		X	X	Case 3 – 2027 with development

* Not a TID intersection under the current TID agreement but is being contemplated to be added as per the 2022 proposed TID update.

1) Jamison Corner Road (New Castle Road 413) / Site Entrance 1 (See Table 2, Page 34, Developer Improvement #3)

The unsignalized intersection of Jamison Corner Road with Site Entrance 1 is not a TID intersection, would be located directly across from the Scott Run Commerce Center site entrance, and would exhibit LOS deficiencies under Cases 2 and 3 conditions during both the AM and PM peak hours. Specifically, under Case 3 conditions during the PM peak hour, the eastbound Site Entrance 1 approach would operate at LOS F with delays of over 1,000 seconds per vehicle and a calculated 95th percentile queue length of approximately 150 feet.

Both a signal and a roundabout would mitigate the LOS deficiencies. With signalization, the Jamison Corner Road intersection with Site Entrance 1 would operate at acceptable LOS B (17 seconds of delay per vehicle) and the calculated 95th percentile queue lengths along the eastbound Site Entrance 1 approach would reduce to approximately 80 feet. With a roundabout, the intersection would operate at acceptable LOS C and the calculated 95th percentile queue length along the eastbound Site Entrance 1 approach would reduce to approximately 25 feet.

JMT completed a Traffic Signal Justification Study (TSJS) at the study intersection and the results identified that a traffic signal would be warranted. As DelDOT will continue to evaluate the signal warrants to determine the timing to when a signal is installed, it is recommended that the developer enter into a signal agreement with DelDOT and construct Site Entrance 1 as an unsignalized full movement access. DelDOT will install the signal when warranted and determined by DelDOT.

Additionally, there is a future potential widening project along Jamison Corner Road that would be done through the Southern New Castle County TID. The developer should enter into an agreement with DelDOT for a right-of-way reservation along the Jamison Corner Road site frontage.

Furthermore, the developer should ensure the truck operations on-site would not impact Jamison Corner Road. Specifically, on-site truck circulation and truck parking accommodations should be provided to minimize truck spillback onto Jamison Corner Road.

3) Jamison Corner Road (New Castle Road 413) / Site Entrance 3 (See Table 4, Page 37, Developer Improvement #5)

The unsignalized intersection of Jamison Corner Road with Site Entrance 3 is not a TID intersection, would be located directly across from the Scott Run Commerce Center site entrance, and would exhibit LOS deficiencies under Case 2 conditions during the PM peak hour and under Case 3 conditions during both the AM and PM peak hours. Specifically, under Case 3 conditions during the PM peak hour, the eastbound Site Entrance 3 approach would operate at LOS F (178 seconds of delay per vehicle) with a calculated 95th percentile queue length of approximately 90 feet.

Both a signal and a roundabout would mitigate the LOS deficiencies. With signalization, the Jamison Corner Road intersection with Site Entrance 3 would operate at acceptable LOS A (9 seconds of delay per vehicle) and the calculated 95th percentile queue lengths along the eastbound Site Entrance 3 approach would reduce to approximately 75 feet. With a roundabout, the intersection would operate at acceptable LOS B and the calculated 95th percentile queue length along the eastbound Site Entrance 3 approach would reduce to approximately 25 feet.

JMT completed a Traffic Signal Justification Study (TSJS) at the study intersection. Based on the results, the coordinated signal system traffic signal warrant would be met if Site Entrance 1 is to be signalized. However, the coordinated signal system traffic signal warrant is not typically used to justify the installation of a signal without other warrants being met.

As DelDOT will continue to evaluate the signal warrants to determine the timing to when a signal is installed, it is recommended that the developer enter into a signal agreement with DelDOT and construct Site Entrance 3 as an unsignalized full movement access. DelDOT will install the signal when warranted and determined by DelDOT.

Additionally, there is a future potential widening project along Jamison Corner Road that would be done through the Southern New Castle County TID. The developer should enter into an agreement with DelDOT for a right-of-way reservation along the Jamison Corner Road site frontage.

Furthermore, the developer should ensure the truck operations on-site would not impact Jamison Corner Road. Specifically, on-site truck circulation and truck parking accommodations should be provided to minimize truck spillback onto Jamison Corner Road.

6) Jamison Corner Road / Lorewood Grove Road (New Castle Road 412) (See Table 8, Page 42)

The single lane roundabout intersection of Jamison Corner Road with Lorewood Grove Road is a TID intersection and exhibits LOS deficiencies during the PM peak hour under future conditions with the proposed development. Specifically, under Case 3 conditions during the PM peak hour, the intersection would operate at LOS E with 37 seconds of delay per vehicle and a calculated 95th percentile queue length of approximately 525 feet along the southbound Lorewood Grove Road approach.

Per the recommendations from the Southern New Castle County (SNCC) TID, a multilane roundabout is proposed at the study intersection of Jamison Corner Road with Lorewood Grove Road which would mitigate the LOS deficiencies. Specifically, the intersection would improve to operate at LOS B (12 seconds of delay per vehicle) and the calculated 95th percentile queue length along the southbound Lorewood Grove Road approach would reduce to approximately 75 feet. The configuration of the roundabout would include one shared left turn/right turn lane along the eastbound Lorewood Grove Road approach, one shared left turn/through lane along the northbound Jamison Corner Road approach, and one through lane and one shared through/right turn lane along the southbound Jamison Corner Road approach.

As improvements through the Southern New Castle County TID would mitigate the LOS deficiencies, we do not recommend the developer implement any improvements at this intersection. Additionally, the developer contribution towards this improvement is accounted for within the TID fees.

7) Jamison Corner Road / Boyds Corner Road (New Castle Road 015) / Cedar Lane Road (New Castle Road 427) (See Table 9, Page 43)

Under future 2027 conditions with and without the development, the intersection, which is a TID intersection, would exhibit LOS deficiencies during the AM and PM peak hour. Specifically, under Case 3 conditions, the signalized intersection would operate at LOS F with 161 seconds of delay per vehicle in the AM peak hour and a calculated 95th percentile queue length along the westbound Boyds Corner Road through movement of approximately 1,548 feet. During the PM peak hour, the intersection would operate at LOS F with 179 seconds of delay per vehicle and a calculated 95th percentile queue length along the eastbound Boyds Corner through movement of approximately 1,885 feet.

The deficiencies at the Boyds Corner Road signalized intersection with Cedar Lane Road and Jamison Corner Road could be mitigated by implementing the improvements recommended as part of the *Boyds Corner Road, Cedar Lane Road to US Route 13* project (DelDOT Project No. T200712002). As part of the DelDOT project, the northbound Cedar Lane Road and southbound Jamison Corner Road approaches would provide one left turn lane, two through lanes, and one right turn lane, and the eastbound and westbound Boyds Corner Road approaches would provide two left turn lanes, two through lanes, and one right turn lane.

With the DelDOT improvement project and the assumption of pedestrian activated crossings for all intersection approaches, the intersection would operate at LOS D under Case 3 conditions with 48 seconds of delay per vehicle during the AM peak hour and 51 seconds of delay per vehicle during the PM peak hour. Additionally, the calculated 95th percentile queue length along the westbound Boyds Corner Road through movement is approximately 410 feet during the AM peak hour and the calculated 95th percentile queue length along the eastbound Boyds Corner Road through movement is approximately 428 feet during the PM peak hour. Note, the existing traffic counts did not record any pedestrians crossings at the intersection during the peak periods.

As the LOS deficiencies would be mitigated as a part of the *Boyds Corner Road, Cedar Lane Road to US Route 13* project, it is not recommended that the developer implement any improvements.

Additionally, the developer contribution towards this improvement is accounted for within the TID fees.

8) Boyds Corner Road / Ratledge Road (New Castle Road 414) (See Table 10, Page 45)

The existing unsignalized Boyds Corner Road intersection with Ratledge Road is a TID intersection and exhibits LOS deficiencies during the AM peak hour under existing conditions and during the AM and PM peak hours under future conditions, with or without the proposed development. These deficiencies occur along the minor southbound Ratledge Road approach, with delays of over 1,000 seconds per vehicle during the AM and PM peak hours and calculated 95th percentile queue lengths of approximately 890 feet during the AM peak hour and 490 feet during the PM peak hour under Case 3 conditions.

Consistent with the recommendations from the TID, the LOS deficiencies could be mitigated by signalization of the intersection. With the implementation of a signal, the intersection would operate at LOS C (34 seconds of delay per vehicle during the AM peak hour) under Case 3 conditions. As the deficiency is along the minor approach and a signal when warranted would be determined by DelDOT to be installed as per the SNCC TID recommendations, we do not recommend the developer implement any improvements at this intersection. Additionally, the developer contribution towards this improvement is accounted for within the TID fees.

9) Boyds Corner Road / Whispering Woods Road (See Table 11, Page 47)

The unsignalized Boyds Corner Road intersection with Whispering Wood Road is not a TID intersection and would operate at LOS F along the minor Whispering Woods Road stop-controlled approach during all future AM and PM peak hours with a calculated 95th percentile queue length of approximately 40 feet. The installation of a traffic signal or roundabout would mitigate the LOS deficiencies. However, we do not recommend the developer implement any improvements as a future traffic signal would be installed at the nearby Boyds Corner Road intersection with Ratledge Road as per SNCC TID recommendations when warranted and determined by DelDOT to be installed. Ratledge Road is located approximately 600 feet east of Whispering Woods Road. Furthermore, the peak hour volume exiting Whispering Woods Road is 22 vehicles which would not satisfy the volume traffic signal warrants to install a traffic signal as part of the Delaware MUTCD (Manual of Traffic Control Devices).

10) Boyds Corner Road / Summit Bridge Road (New Castle Road 039) / Summit Bridge Road (New Castle Road 016) / Churchtown Road (New Castle Road 432) (See Table 12, Page 49)

The signalized Summit Bridge Road intersection with Boyds Corner Road/Churchtown Road is not a TID intersection and exhibits LOS deficiencies during the AM peak hour under future conditions with or without the proposed development. These deficiencies could be mitigated by changing the existing split phasing of the traffic signal to concurrent phasing and using the cycle length of 150 seconds in the AM and PM peak hours instead of the existing cycle length of 90 seconds. With the provision of changing the cycle length and phasing, the intersection would

improve to operate at LOS D with 55 seconds of delay per vehicle during AM peak hour and 44 seconds of delay per vehicle during the PM peak hour. As modifications to signal timings would mitigate the LOS deficiencies, we do not recommend the developer implement any improvements at this intersection. Signal timing modifications are outside the scope of the TIS and should be evaluated as part of a larger study performed by DelDOT as timing modifications would impact adjacent signalized intersections.

11) Cedar Lane Road and Cedar Lane Elementary School (See Table 13, Page 51)

The two-way stop-controlled intersection of Cedar Lane Road and Cedar Lane Elementary School Road is not a TID intersection and exhibits LOS deficiencies along the minor eastbound Cedar Lane Elementary School approach during the AM and PM peak hours under existing and future conditions with and without the proposed development. Specifically, delays of over 1,000 seconds per vehicle would occur along the minor eastbound Cedar Lane Elementary School left turn during the Case 3 PM peak hour with a calculated 95th percentile queue length of approximately 370 feet. The LOS deficiencies at the intersection could be mitigated by the installation of a traffic signal or roundabout.

This intersection is within the area of the *Cedar Lane, Marl Pit Road to Boyds Corner Road* project (DelDOT Project No. T200712005). The DelDOT project is within the Capital Transportation Program (CTP).

Existing issues at the study intersection were identified in the past and DelDOT has corresponded with both Cedar Lane Elementary School and MOT Charter School regarding access management and internal access. However, internal access is not an improvement for DelDOT or the developer, so we do not recommend the developer implement any improvements at this intersection.

12) Cedar Lane Road and MOT Charter High School (See Table 14, Page 53)

The two-way stop-controlled intersection of Cedar Lane Road and MOT Charter High School is not a TID intersection and exhibits LOS deficiencies along the minor eastbound MOT Charter High School approach during the AM peak hour under existing conditions and during the AM and PM peak hours under future conditions with and without the proposed development. Specifically, under Case 3 conditions, the minor eastbound MOT Charter High School left turn would operate with delays of 88 seconds per vehicle with a calculated 95th percentile queue length of approximately 90 feet. The LOS deficiencies at the intersection could be mitigated by the installation of a traffic signal or roundabout.

This intersection is within the area of the *Cedar Lane, Marl Pit Road to Boyds Corner Road* project (DelDOT Project No. T200712005). The DelDOT project is within the Capital Transportation Program (CTP).

Existing issues at the study intersection were identified in the past and DelDOT has corresponded with both Cedar Lane Elementary School and MOT Charter School regarding access management and internal access. However, internal access is not an improvement for DelDOT or the developer, so we do not recommend the developer implement any improvements at this intersection.

13) Boyds Corner Road / Bayberry Parkway (See Table 15, Page 55)

The signalized intersection of Boyds Corner Road with Bayberry Parkway is not a TID intersection and exhibits LOS deficiencies during the AM and PM peak hours under future conditions with and without the proposed development. Specifically, under Case 3 conditions during the PM peak hour the intersection would operate at LOS F with 149 seconds of delay per vehicle and a calculated 95th percentile queue length of approximately 2,430 feet along the westbound Boyds Corner Road approach.

As part of the *Boyds Corner Road, Cedar Lane Road to US Route 13* Project (DelDOT Project No. T200712002), a multilane roundabout is proposed at the study intersection of Boyds Corner Road and Bayberry Parkway. The deficiencies would be mitigated with the installation of the multi-lane roundabout. Specifically, the LOS would improve to operate at LOS C (23 seconds of delay per vehicle) or better and the calculated 95th percentile queue lengths along eastbound and westbound Boyds Corner Road would reduce to 300 feet. The configuration of the roundabout would include one shared left turn/through lane and one shared through/right turn lane along the eastbound and westbound approaches of Boyds Corner Road, and one shared left turn/through lane and one right turn lane along the northbound and southbound Bayberry Parkway approaches.

As the LOS deficiencies would be mitigated as a part of the *Boyds Corner Road, Cedar Lane Road to US Route 13* project, it is not recommended that the developer implement any improvements. Additionally, the developer contribution towards this improvement is accounted for within the TID fees.

14) Boyds Corner Road / Shallcross Lake Road (New Castle Road 428) / Milford Drive (See Table 16, Page 57)

The two-way stop-controlled intersection of Boyds Corner Road with Shallcross Lake Road and Milford Drive is a TID intersection and exhibits LOS deficiencies along the minor northbound and southbound approaches during the AM and PM peak hours under existing and future conditions with and without the proposed developments. Specifically, under Case 3 conditions during both the AM and PM peak hours, the northbound Shallcross Lake Road approach and the southbound Milford Drive approach would operate at LOS F with delays exceeding 1,000 seconds per vehicle. The calculated 95th percentile queues lengths under Case 3 conditions during the PM peak hour is approximately 350 feet.

As part of the *Boyds Corner Road, Cedar Lane Road to US Route 13* Project (DelDOT Project No. T200712002), a multilane roundabout is proposed at the study intersection of Boyds Corner Road and Shallcross Lake Road/Milford Drive. The deficiencies would be mitigated with the installation of the multi-lane roundabout. Specifically, the LOS would improve to operate at LOS C (17

seconds of delay per vehicle) or better and the calculated 95th percentile queue lengths along the northbound and southbound Shallcross Lake Road and Milford Drive approaches would reduce to approximately 50 feet. The configuration of the roundabout would include one shared left turn/through/right turn lane along the northbound Shallcross Lake Road and southbound Milford Drive approaches and a shared left turn/through lane and a shared through/right turn lane along the eastbound and westbound Boyds Corner Road approaches.

As the LOS deficiencies would be mitigated as a part of the *Boyds Corner Road, Cedar Lane Road to US Route 13* project, it is not recommended that the developer implement any improvements. Additionally, the developer contribution towards this improvement is accounted for within the TID fees.

15) Boyds Corner Road / Boyds Farm Drive (See Table 17, Page 59)

The two-way stop-controlled intersection of Boyds Corner Road with Boyds Farm Drive is not a TID intersection and exhibits LOS deficiencies along the minor northbound approach during the AM and PM peak hours under existing and future conditions with and without the proposed developments. Specifically, under Case 3 conditions during both the AM and PM peak hours, the northbound Boyds Corner Road approach would operate at LOS F with delays exceeding 1,000 seconds. The calculated 95th percentile queues length under Case 3 conditions during the PM peak hour is approximately 680 feet.

As part of the *Boyds Corner Road, Cedar Lane Road to US Route 13* Project (DelDOT Project No. T200712002), a multilane roundabout is proposed at the study intersection of Boyds Corner Road and Boyds Farm Drive. The deficiencies would be mitigated with the installation of the multi-lane roundabout. Specifically, the LOS would improve to operate at LOS C (19 seconds of delay per vehicle) or better and the calculated 95th percentile queue length along the northbound Boyds Farm Drive approach would reduce to approximately 200 feet. The configuration of the roundabout would include one shared left turn/right turn lane along the northbound Boyds Farm Drive approach, one shared left turn/through lane and one through lane along the westbound Boyds Corner Road approach, and one through lane and one shared through/right turn lane along the eastbound Boyds Corner Road approach.

As the LOS deficiencies would be mitigated as a part of the *Boyds Corner Road, Cedar Lane Road to US Route 13* project, it is not recommended that the developer implement any improvements. Additionally, the developer contribution towards this improvement is accounted for within the TID fees.

16) Boyds Corner Road / Pole Bridge Road (New Castle Road 420) / US Route 13 (See Table 18, Page 61)

The US Route 13 signalized intersection with Pole Bridge Road and Boyds Corner Road is not a TID intersection under the current TID agreement but is being contemplated to be added as per the 2022 proposed TID update, and exhibits LOS deficiencies during the AM and PM peak hour future conditions, with or without the proposed development. Specifically, under Case 3 conditions during the PM peak hour, the signalized intersection would operate at LOS F with 173 seconds of

delay per vehicle and a calculated 95th percentile queue length along the westbound Pole Bridge Road approach of approximately 675 feet.

The deficiencies at the US Route 13 intersection with Pole Bridge Road and Boyds Corner Road could be mitigated by implementing the improvements recommended along US Route 13 as part of the Southern New Castle County TID. Consistent with the TID recommendations, the northbound US Route 13 approach would provide three left turn lanes, three through lanes, and one right turn lane and the southbound US Route 13 approach would provide two left turn lanes, four through lanes, and one right turn lane. The eastbound approach would maintain the existing lane configuration by providing two left turn lanes, two through lanes, and one right turn lane, and the westbound Pole Bridge Road approach would provide one left turn lane, two through lanes, and one right turn lane.

With these lane configurations, the signal phasing converted to concurrent instead of split phasing, and the assumption of no pedestrian signal activation, the intersection would operate at LOS D with 50 seconds of delay per vehicle during the PM peak hour. However, the determination of if concurrent phasing and the lane configurations should be implemented at the intersection should be evaluated as part of the Southern New Castle County TID to take into account all the future development proposed within the TID.

Although the study intersection is not under the current TID agreement, it is being contemplated to be added based on the recommendations contained within the 2022 TID update. Therefore, we do not recommend the developer implement any improvements at this intersection.

Development Improvements

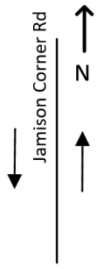
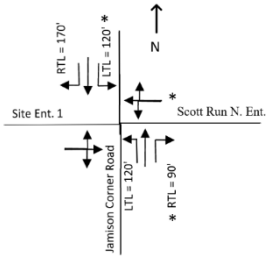
Should New Castle County approve the proposed development, the following items should be incorporated into the site design and reflected on the record plan, unless a Design Deviation is requested and approved by the Department. All applicable agreements (i.e., letter agreements for off-site improvements and traffic signal agreements) should be executed prior to entrance plan approval for the proposed development. The following items should be implemented at the same time as site construction once all agency approvals and permits are secured and completed in accordance with DelDOT's Standards and Specifications.

1. The developer shall improve the State-maintained roads on which they front (Jamison Corner Road (New Castle Road 413)), within the limits of their frontage. 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" means the length along the state right-of-way of a single property tract where an entrance is proposed or required. If a single property tract has frontage along multiple roadways, any segment of roadway including an entrance shall be improved to meet DelDOT's Functional Classification criteria as found in Section 1.1 of the Development Coordination Manual and elsewhere therein, and/or improvements established in the Traffic Operational Analysis and/or Traffic Impact Study. "Secondary Frontage" means the length along the state right-of-way of a single property tract where no entrance is proposed or required. The segment of roadway may be upgraded by improving the pavement

condition of the existing roadway width. The Pavement Management Section and Subdivision Section will determine the requirements to improve the pavement condition.

2. The proposed development is located within the Southern New Castle County (SNCC) Transportation Improvement District (TID) and the developer should coordinate with Ms. Sarah Coakley at sarah.coakley@delaware.gov from DelDOT's Statewide & Regional Systems Planning Section regarding the required TID fees.

3. The developer should construct a full movement Site Entrance 1 along Jamison Corner Road directly across the Scott Run Commerce Center northerly entrance and enter into a signal agreement. The intersection should be designed to be consistent with the lane configurations indicated in the table below which are consistent with the approved Entrance Plan for the LogistiCenter at New Castle site:

Approach	Current Configuration		Approach	Proposed Configuration	
Eastbound Site Entrance 1	Approach does not exist		Eastbound Site Entrance 1	One shared left turn/through /right turn lane	
Westbound Scott Run Northern Site Entrance	Approach does not exist		Westbound Scott Run Northern Site Entrance	One shared left turn/through/ right turn lane	
Northbound Jamison Corner Road	One through lane		Northbound Jamison Corner Road	One left turn lane, one through lane, and one right turn lane	
Southbound Jamison Corner Road	One through lane		Southbound Jamison Corner Road	One left turn lane, one through lane, and one right turn lane	

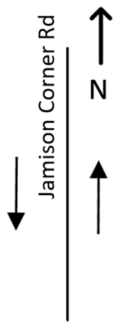
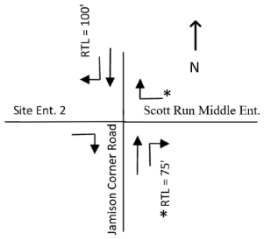
*Will be constructed by Scott Run Commerce Center

Based on the approved Entrance Plans for the LogistiCenter at New Castle and Scott Run Commerce Center developments which are adequate to accommodate the projected queues from the traffic analysis, the recommended minimum storage lengths (excluding taper) are summarized in the following table:

Approach	Left Turn	Right Turn
Northbound	120 feet	90 feet*
Southbound	120 feet*	170 feet

*Turn lane lengths constructed by a preceding development should be maintained

4. The developer should construct an unsignalized Site Entrance 2 rights-in rights-out along Jamison Corner Road. The intersection should be consistent with the lane configurations indicated in the table below which are consistent with the approved Entrance Plan for the LogistiCenter at New Castle site:

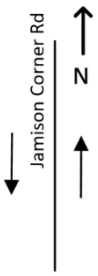
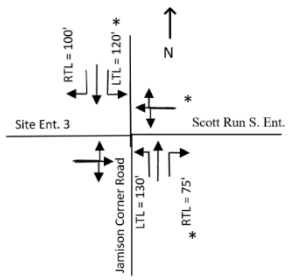
Approach	Current Configuration		Approach	Proposed Configuration	
Eastbound Site Entrance 2	Approach does not exist		Eastbound Site Entrance 2	One right turn lane	
Westbound Scott Run Middle Site Entrance	Approach does not exist		Westbound Scott Run Middle Site Entrance	One right turn lane	
Northbound Jamison Corner Road	One through lane		Northbound Jamison Corner Road	One through lane and one right turn lane	
Southbound Jamison Corner Road	One through lane		Southbound Jamison Corner Road	One through lane and one right turn lane	

*Will be constructed by Scott Run Commerce Center

Based on the approved Entrance Plan for the LogistiCenter at New Castle, the recommended minimum storage length (excluding taper) of the southbound right turn lane is 100 feet. Per the approved Entrance Plan for the Scott Run Commerce Center, the proposed northbound right turn lane is 75 feet. If the northbound right turn lane is constructed by a preceding development, it should be maintained as part of the LogistiCenter at New Castle development. The projected queues from the traffic analysis can be accommodated within the recommended storage lengths.

5. The developer should construct a full movement Site Entrance 3 along Jamison Corner Road directly across the Scott Run Commerce Center southerly entrance and enter into a signal

agreement. The intersection should be consistent with the lane configurations indicated in the table below which are consistent with the approved Entrance Plan for the LogistiCenter at New Castle site:

Approach	Current Configuration		Approach	Proposed Configuration	
Eastbound Site Entrance 3	Approach does not exist		Eastbound Site Entrance 3	One shared left turn/through/ right turn lane	
Westbound Scott Run Southern Site Entrance	Approach does not exist		Westbound Scott Run Southern Site Entrance	One shared left turn/through/ right turn lane	
Northbound Jamison Corner Road	One through lane		Northbound Jamison Corner Road	One left turn lane, one through lane, and one right turn lane	
Southbound Jamison Corner Road	One through lane		Southbound Jamison Corner Road	One left turn lane, one through lane, and one right turn lane	

*Will be constructed by Scott Run Commerce Center

Based on the approved Entrance Plans for the LogistiCenter at New Castle and Scott Run Commerce Center developments which are adequate to accommodate the projected queues from the traffic analysis, the recommended minimum storage lengths (excluding taper) are summarized in the following table:

Approach	Left Turn	Right Turn
Northbound	130 feet	75 feet*
Southbound	120 feet*	100 feet

*Turn lane lengths constructed by a preceding development should be maintained

6. The developer should enter into an agreement with DelDOT for a right-of-way reservation along the Jamison Corner Road site frontage to allow for potential future Jamison Corner Road widening identified by the Southern New Castle County TID.

7. Due to the proximity of the proposed development to Summit Airport, we recommend that deed restrictions be required similar to the attached Avigation Nuisance Easement and Non-

Suit Covenant. The applicant should contact Mr. Steve Bayer at stephen.bayer@delaware.gov from DelDOT's Statewide and Regional Systems Planning Section to determine whether the proposed development is within the Runaway Protection Zone. If so, restrictions may apply.

8. The following bicycle, pedestrian, and transit improvements should be included:

    a. A minimum fifteen-foot-wide permanent easement from the edge of the right-of-way should be dedicated to DelDOT along the Jamison Corner Road frontage. Along the frontage, the developer should construct a ten-foot-wide shared use path (SUP). The SUP should be designed to meet current AASHTO and ADA standards. A minimum five-foot setback should be maintained from the edge of the pavement to the SUP/sidewalk. The developer should coordinate with DelDOT's Development Coordination Section during the plan review process to identify the exact location of the SUP.

    b. An internal sidewalk/SUP connection from the SUP along Jamison Corner Road is required.

    c. ADA-compliant curb ramps and marked crosswalks should be provided along the site entrance.

    d. Provide internal bicycle racks at each commercial building.

    e. Utility covers should be moved outside of any designated bicycle lanes and any proposed SUP/sidewalks or should be flush with the pavement.

All recommendations noted above, including but not limited to turn lane lengths at the entrances, signal agreements, right-of-way reservations, pedestrian facilities, and correspondence regarding the Summit Airport, have been adequately addressed in the approved Record and Entrance Plans dated September 19, 2022, and December 12, 2023, respectively.

The agreements and additional consultations recommended herein have been fulfilled by the appropriate parties entering into the following:

1. Obstruction Review Decision Dated March 11, 2022, signed by S. Sherman in the DelDOT Office of Aeronautics with no conditions required.
2. Traffic Maintenance Agreement Dated December 19, 2023, New Castle County Recorder of Deeds Instrument Number 20244112-0002588 (South).
3. Traffic Maintenance Agreement Dated December 19, 2023, New Castle County Recorder of Deeds Instrument Number 20244112-0002587 (North).
4. SNCC TID Recoupment Credit Agreement dated March 28, 2024.

5. Southern New Castle County Transportation District Infrastructure Recoupment Agreement, October 19, 2021, New Castle County Recorder of Deeds Instrument Number 20211104-0127815.

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.

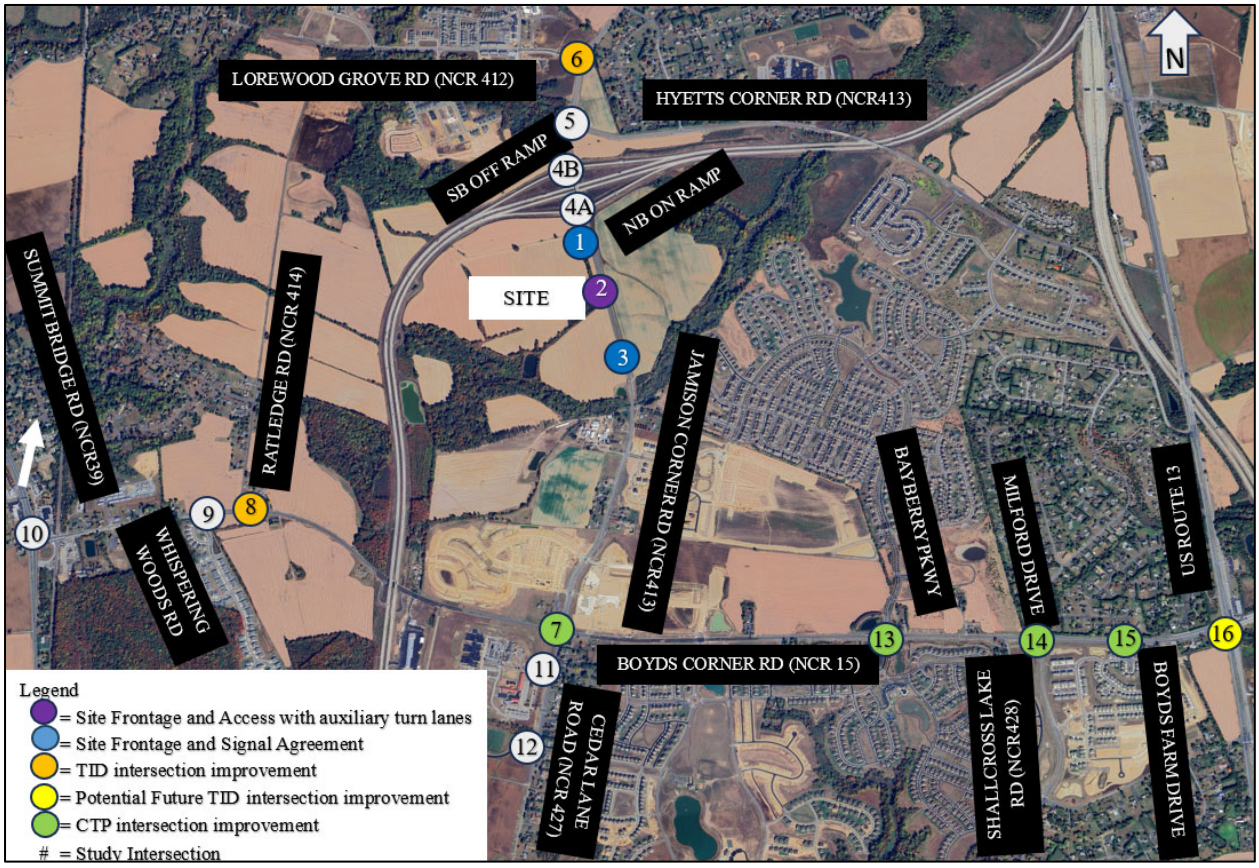
Additional details on our review of the TIS are attached. Please contact me at (302) 266-9600 if you have any questions concerning this review.

Sincerely,
Johnson, Mirmiran, and Thompson, Inc.

Joanne M. Arellano, P.E., PTOE

cc: Annamaria Furmato, EIT
Mir Wahed, P.E., PTOE
Nate Rahaim, P.E., PTOE
Hojjat Barati, EIT
Enclosure

Recommendations Map



General Information

Report date: December 2024
Prepared by: JMT
Prepared for: Dermody Properties
Tax parcel: 13-008.00-003
Generally consistent with DelDOT's Development Coordination Manual (DCM): Yes

Project Description and Background

Description: The proposed development consists of 2,371,850 square feet of warehousing space.
Location: The land is located on the west side of Jamison Corner Road (New Castle Road 413) in New Castle County, Delaware.
Amount of land to be developed: An approximately 229.43-acre parcel.
Land use approval(s) needed: Entrance Plan.
Proposed completion date: 2027.
Proposed access locations: Three access points are proposed on Jamison Corner Road, two full access and one rights-in/rights-out.

Daily traffic volumes:

- 2024 Average Annual Daily Traffic on Jamison Corner Road (New Castle Road 413): 3,461 vehicles per day.

*AADT is per ATR count data from 11/06/2024 to 11/14/2024.

Site Map

* *Graphic is an approximation based on the Record Major Land Development prepared by Langan Engineering and Environmental Services, Inc. for LogistiCenter at New Castle, dated January 31, 2022, and revised on November 2, 2023.*

Relevant and On-going Projects

The *N412, Lorewood Grove Road, Jamison Corner Rd to SR 1* project (DelDOT Project No. T200712006) aims to improve traffic safety and operations along Lorewood Grove Road between Jamison Corner Road and Delaware Route 1. The project will add shoulders on both sides of the roadway and a multi-use path on one side of the roadway. The project is currently in the planning/design phase. More information regarding the project can be found at the following website: https://deldot.gov/projects/index.shtml?dc=details&projectNumber=T200712006.

Additionally, along Jamison Corner Road, DelDOT is in the process of updating the speed limit between Boyds Corner Road and Lorewood Grove Road to 40 miles per hour. Currently, speed limits of 35 miles per hour and 25 miles per hour are posted along different sections of Jamison Corner Road. However, based on a traffic engineering study performed by DelDOT, the posted speed limit along the entirety of Jamison Corner Road will be modified to 40 miles per hour. The

TIS for the LogistiCenter at New Castle development incorporates the modified speed limit within the traffic analysis.

The *Cedar Lane, Marl Pit Road to Boyds Corner Road* project (DelDOT Project No. T200712005) proposes to widen Cedar Lane Road from Marl Pitt Road to Boyds Corner Road to provide shoulders, bicycle and pedestrian facilities, and replacement of two bridges. The project was in the planning/design phase but has been placed on hold indefinitely. More information regarding the project can be found at the following website: https://deldot.gov/projects/index.shtml?dc=details&projectNumber=T200712005.

The *Boyds Corner Road, Cedar Lane Road to US Route 13* project (DelDOT Project No. T200712002) will improve Boyds Corner Road to four lanes with a median, shoulders, and a multi-use path on each side of the roadway. The area of New Castle County just below the C & D Canal is expected to experience added congestion and safety issues. This project is part of a Master Plan for improvements in this growing area. The project is currently in the design phase with construction tentatively scheduled to begin in Fiscal Year 2028. As part of the design, multilane roundabouts are proposed at four intersections including the following three study intersections: Boyds Corner Road and Shallcross Lake Road/Milford Drive, Boyds Corner Road and Bayberry Parkway, and Boyds Corner Road and Boyds Farm Drive. A multi-lane roundabout is also proposed at the Boyds Corner Road intersection with the Bayberry Town Center driveway but was not included in the scope of this TIS. Intersection improvements are also proposed at the Boyds Corner Road intersection with Jamison Corner Road and Cedar Lane Road. Specifically, the eastbound and westbound Boyds Corner Road approaches would provide two left turn lanes, two through lanes, and one right turn lane and the northbound Cedar Lane Road and southbound Jamison Corner Road approaches would provide one left turn lane, two through lanes, and one right turn lane. More information regarding the project can be found at the following website: https://deldot.gov/projects/index.shtml?dc=details&projectNumber=T200712002.

The St. George's Bridge Closure and Rehabilitation Project included improvements to the structural condition and travel lanes of the bridge. The St. Georges Bridge along the C & D Canal was closed for construction in April of 2023 and reopened in mid-October of 2024. As it was anticipated that drivers would gradually return to their pre-closure travel patterns and traffic volumes would take a few weeks to return to their typical values prior to the bridge closure, JMT utilized historical traffic count data from previous TIS reports, the Southern New Castle County TID, and other DelDOT projects in the study area to develop traffic volumes used for the LogistiCenter at New Castle TIS.

The proposed development is located within the Southern New Castle County (SNCC). The SNCC TID project area encompasses approximately 18 square miles and is bordered to the north by the C&D Canal, to the east by US Route 13 and Delaware Route 1, to the west by US Route 301/Delaware Route 71, and to the south by Marl Pit Road. The SNCC TID analyzed and recommended improvements at 17 intersections with significant development expected over the next 20 years within the project area. As part of the SNCC TID report, intersection improvements were recommended at the TIS study intersections of Jamison Corner Road with the US 301 ramps and Lorewood Grove Road. More details of the TIDs are available on the DelDOT website at the following link: https://deldot.gov/Programs/transportation-improvement-districts/index.shtml.

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 Investment Level 1 and 2.

Investment Level 1

Investment Level 1 Areas are often municipalities, towns, or urban/urbanizing places in counties. Density is generally higher than in the surrounding areas. There are a variety of transportation opportunities available. Buildings may have mixed uses, such as a business on the first floor and apartments above.

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 promote well-designed and efficient new growth in Investment Level 1 Areas. These areas contain downtowns and distressed neighborhoods where strong public-private partnerships are needed to facilitate community redevelopment and accelerate economic revitalization. Thoughtful measures also are needed in some Level 1 Areas to expand a range of housing options in healthy, vibrant communities with schools and quality employment, but have few housing options. These areas would be a prime location for designating "pre-permitted areas" to help steer development where the local government and citizens are most prepared to accept it.

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 closing gaps in the pedestrian system, including Safe Routes to School projects. Investment Level 1 Areas are ideal locations for Transportation Improvement Districts as well as Complete Community Enterprise Districts. Additionally, Level 1 areas are a first priority for planning projects and studies, bicycle facilities, signal-system enhancements, and the promotion of interconnectivity of neighborhoods and public facilities. Additionally, street design and access should be compatible to the context of an area. Highest priority for transit system investments, operating, and capital.

Investment Level 2

These areas can be composed of less developed areas within municipalities, rapidly growing areas in the counties that have or will have public water and wastewater services and utilities, areas that are generally adjacent to or near Investment Level 1 Areas, smaller towns and rural villages that should grow consistently with their historic character, and suburban areas with public water, wastewater, and utility services. They serve as transition areas between Level 1 and the state's more open, less populated areas. They generally contain a limited variety of housing types, predominantly detached single-family dwellings.

In Investment Level 2 Areas, like Investment Level 1 Areas, state investments and policies should support and encourage a wide range of uses and densities, promote other transportation options, foster efficient use of existing public and private investments, and enhance community identity and integrity. Investments should encourage departure from the typical single-family-dwelling developments and promote a broader mix of housing types and commercial sites encouraging compact, mixed-use development where applicable. Overall, the State's intent is to use its spending and management tools to promote well-designed development in these areas. Such development provides for a variety of housing types, user-friendly transportation systems, essential open spaces and recreational facilities, other public facilities, and services to promote a sense of community.

Level 2 Areas share similar priorities as with the Level 1 Areas where the aim remains to: make context sensitive transportation system capacity enhancements, preserve existing facilities, make safety enhancements, make transportation system capacity improvements, create transit system enhancements, ensure ADA accessibility, and close gaps in the pedestrian system, including the Safe Routes to School projects. Investment Level 2 Areas are ideal locations for Transportation Improvement Districts and Complete Community Enterprise Districts. Other priorities for Level 2 Areas include: Corridor Capacity Preservation, off-alignment multi-use paths, interconnectivity of neighborhoods and public facilities, and signal-system enhancements.

Proposed development's compatibility with Livable Delaware:
The proposed development is located mostly within Investment Level 1. Level 1 areas are the most favorable locations for preserving existing facilities, promoting transit enhancements, fostering economic revitalization, encouraging community-focused design, and services to promote a sense of community. The proposed development consists of a 2,371,850 square feet of warehousing space (ITE Land Use Code (LUC) 150) which would create new jobs in the area. Therefore, the proposed development is consistent with the 2020 update of *Livable Delaware Strategies for State Policies and Spending.*

Comprehensive Plan

(Source: New Castle County Comprehensive Plan, 2050)

New Castle County Comprehensive Plan:
Per the *New Castle County Existing Land Use Map*, the proposed development is currently zoned as Business Park. Per the *New Castle County Future Land Use Map 2022*, the proposed development is designated as Business Flex.

Proposed development's compatibility with New Castle County Comprehensive Plan:
The Comprehensive Plan states that Business Flex zones are areas of potential non-residential development. The land is currently zoned as BP (Business Park), and the developer does not plan to rezone the land. The proposed development is warehousing, which qualifies as both Business Park and Business Flex. Therefore, the proposed development is generally consistent with the *New Castle County Comprehensive Plan.*

Trip Generation

The trip generation for the proposed development was determined by using the comparable land use and rates/equations contained in the *Trip Generation, 11th Edition: An ITE Informational Report*, published by the Institute of Transportation Engineers (ITE) for ITE Land Use Code 150 (Warehousing).

Table 1
LogistiCenter at New Castle Trip Generation

Land Use	ADT	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
2,371,850 SF Warehousing (ITE Code 150)	3,786	237	71	308	87	224	311

Overview of TIS

Intersections examined:

1. Jamison Corner Road (New Castle Road 413) / Site Entrance 1
2. Jamison Corner Road / Site Entrance 2
3. Jamison Corner Road / Site Entrance 3

4A. Jamison Corner Road / US 301 NB Ramps
4B. Jamison Corner Road / US 301 SB Ramps

5. Jamison Corner Road / Hyetts Corner Road (New Castle Road 413)
6. Jamison Corner Road / Lorewood Grove Road (New Castle Road 412)
7. Jamison Corner Road / Boyds Corner Road (New Castle Road 015) / Cedar Lane Road (New Castle Road 427)
8. Boyds Corner Road / Ratledge Road (New Castle Road 414)
9. Boyds Corner Road / Whispering Woods Road
10. Boyds Corner Road / Summit Bridge Road (New Castle Road 039) / Summit Bridge Road (New Castle Road 016) / Churchtown Road (New Castle Road 432)
11. Cedar Lane Road and Cedar Lane Elementary School
12. Cedar Lane Road and MOT Charter High School
13. Boyds Corner Road / Bayberry Parkway
14. Boyds Corner Road / Shallcross Lake Road (New Castle Road 428) / Milford Drive
15. Boyds Corner Road / Boyds Farm Drive
16. Boyds Corner Road / Pole Bridge Road (New Castle Road 420) / US Route 13

Conditions examined:

1. Case 1 – 2024 existing
2. Case 2 – 2027 without development
3. Case 3 – 2027 with development

Committed developments considered:

1. Pleasanton (236 single-family detached houses (104 units built))
2. Hubers Crossing (119,000 square-foot shopping center).
3. Boyd's Corner Farm (94,000 square-foot shopping center, 12,500 square foot general office building, 4,800 square foot bank with drive through.
4. Baker Farm (108 single-family detached houses (50 units built) and 74 units of low-rise multi-family houses (65 units built).

5. Shoppes of St. George (26,124 square feet of shopping center, 13,021 square feet unbuilt).
6. Village of Bayberry South (410 single-family detached houses (338 units built), 779 age-restricted single-family detached houses (613 units built)).
7. Winchelsea (194 senior adult single-family detached housing units and 142 senior adult single-family attached housing units).
8. The Grove (Residential East) at Bayberry (149 single-family detached houses and 27 single-family attached houses).
9. Bayberry Town Center (145 single-family attached houses, 248,655 square feet of retail/restaurant, and 31,000 square feet of office).
10. The Overlook at Bayberry (Residential West) (137 single family detached houses and 38 single family attached houses).
11. Windsor South at Hyetts Corner (109 single-family detached houses (103 units built))
12. Scott Run Commerce Center (5,600 SF convenience store with fueling station and 1,462,450 square feet of warehouse).
13. Whitehall (Town Of) Village 1 (139 single-family detached houses (103 units built), 144 single-family attached houses (103 units built), 225 low-rise residential units with ground floor commercial, 65,950 square feet shopping center, and 14,950 square feet general office buildings)
14. Whitehall (Traditions at) Hamlet 7 (165 single-family age restricted housing units)
15. Summit Aviation Additions (11,500 sf fabric storage building, 80,000 sf warehouse, 7,600 sf building addition, 1,300 sf storage)
16. Summit Campus (40,000 sf daycare, 1,000 student middle school and 1,600 students high school)
17. Monarch (Hamlet 5) (674 single family detached houses)
18. Whitehall: a. Brighton/Hamlet 4 (147 single family detached houses (61 units unbuilt) and 174 townhomes/duplexes units (42 units unbuilt)
19. MOT Charter High School (60 students' addition)
20. Shops at Boyds Corner (13,500 SF of retail)
21. Northeast Christian Church (65,925 SF church).
22. 451 Boyds Corner Road (107,100 SF mini warehouse)
23. Canalview at Crossland (Lorewood Grove Road north side, west of Route 1) (4 single family detached lots)
24. Lorewood Estates (Lorewood Grove Road north side, east of railroad): (4 single family detached lots)
25. Boyds Corner School complex (Jamison Corner Road west side, south of Boyds Corner Road) (4,990 SF outbuilding (trip generation being run as a small office))
26. Commodore Estates II (Shallcross Lake Road east side and Greylag Road south side): unbuilt six single-family lots.

27. Grande View Farms (Boyds Corner Road north side, west of US 13): unbuilt five single family lots)
28. 2229 DuPont Parkway (US 13 west side, south of Old Hyetts Corner Road): 28,000 SF flex warehouse plus 77,499 SF mini-warehouses).
29. Connection Community Church (24,747 SF Church)
30. Pennfield (137 senior adult single family detached houses).
31. Rothwell Village (Old Summit Bridge Road east side and Lorewood Grove Road south side) (150 single-family detached dwellings (11 units unbuilt))

The committed development information contained within the TIS report supersedes the September 13, 2024, Scoping Meeting Memorandum.

Based on December 11, 2024, correspondence from New Castle County, Port St. Georges, Hyetts Landing, 2256 Dupont Parkway, Rausch Farm, and 2105 Dupont Parkway were removed as those developments have not been recorded by the County at the time of the completion of the TIS. Village of Bayberry North, Windsor Commons at Hyett's Corner, and St. George Vo-Tech School, committed developments are also removed as these sites are all built out.

Peak hours evaluated: Weekday AM and weekday PM.

Intersection Descriptions

1. **Jamison Corner Road (New Castle Road 413) / Site Entrance 1**
   Type of Control: Proposed full access intersection.
   Eastbound Approach: (Site Entrance) Proposed one shared left turn/through/right turn lane.
   Westbound Approach: Proposed one shared left turn/through/right turn lane.
   Northbound Approach: (Jamison Corner Road) Existing one through lane. Proposed one left turn lane, one through lane, and one right turn lane.
   Southbound Approach: (Jamison Corner Road) Existing one through lane. Proposed one left turn lane, one through lane, and one right turn lane.

2. **Jamison Corner Road / Site Entrance 2**
   Type of Control: Proposed two-way stop-controlled intersection.
   Eastbound Approach: (Site Entrance) Proposed one right turn lane.
   Westbound Approach: Proposed one right turn lane.
   Northbound Approach: (Jamison Corner Road) Existing one through lane. Proposed one through lane and one right turn lane.
   Southbound Approach: (Jamison Corner Road) Existing one through lane. Proposed one through lane and one right turn lane.

3. **Jamison Corner Road / Site Entrance 3**
   Type of Control: Proposed full access intersection.
   Eastbound Approach: (Site Entrance) Proposed one shared left turn/through/right turn lane.
   Westbound Approach: Proposed one shared left turn/through/right turn lane.

Northbound Approach: (Jamison Corner Road) Existing one through lane. Proposed one left turn lane, one through lane, and one right turn lane.
Southbound Approach: (Jamison Corner Road) Existing one through lane. Proposed one left turn lane, one through lane, and one right turn lane.

4A. Jamison Corner Road / US 301 NB Ramps

Type of Control: Existing roundabout.
Eastbound Approach: (US 301 NB Ramps) Existing one shared left turn/through/right turn lane**.**
Westbound Approach: One receiving lane.
Northbound Approach: (Jamison Corner Road) Existing one shared through/right turn lane**.**
Southbound Approach: (Jamison Corner Road) Existing one shared left turn/through lane**.**

4B. Jamison Corner Road / US 301 SB Ramps
Type of Control: Existing roundabout.
Eastbound Approach: One receiving lane.
Westbound Approach: (US 301 SB Ramps) Existing one shared left turn/through/right turn lane**.**
Northbound Approach: (Jamison Corner Road) Existing one shared left turn/through lane**.**
Southbound Approach: (Jamison Corner Road) Existing one shared through/right turn lane**.**

5. **Jamison Corner Road / Hyetts Corner Road (New Castle Road 413)**
Type of Control: Existing roundabout.
Westbound Approach: (Hyetts Corner Road) Existing one shared left turn/right turn lane**.**
Northbound Approach: (Jamison Corner Road) Existing one shared through/right turn lane**.**
Southbound Approach: (Jamison Corner Road) Existing one shared left turn/through**.**

6. **Jamison Corner Road / Lorewood Grove Road (New Castle Road 412)**
Type of Control: Existing roundabout.
Eastbound Approach: (Lorewood Grove Road) Existing one shared left turn/right turn lane**.**
Northbound Approach: (Jamison Corner Road) Existing one shared left turn/through lane**.**
Southbound Approach: (Lorewood Grove Road) Existing one shared through/right turn lane**.**

7. **Jamison Corner Road / Boyds Corner Road (New Castle Road 015) / Cedar Lane Road (New Castle Road 427)**
Type of Control: Existing signalized intersection.

Eastbound Approach: (Boyds Corner Road) Existing one left turn lane, one through lane, and one right turn lane.
Westbound Approach: (Boyds Corner Road) Existing one left turn lane, one through lane, and one right turn lane.
Northbound Approach: (Cedar Lane Road) Existing one shared left turn/through lane and one right turn lane**.**
Southbound Approach: (Jamison Corner Road) Existing one left turn lane, one through lane, and one right turn lane.

8. **Boyds Corner Road / Ratledge Road (New Castle Road 414)**
Type of Control: Existing two-way stop-controlled intersection (T-intersection)
Eastbound Approach: (Boyds Corner Road) Existing one by-pass lane and one through lane.
Westbound Approach: (Boyds Corner Road) Existing one through lane and one right turn lane.
Southbound Approach: (Ratledge Road) Existing one shared left turn/right turn lane.

9. **Boyds Corner Road / Whispering Woods Road**
Type of Control: Existing two-way stop-controlled intersection (T-intersection)
Eastbound Approach: (Boyds Corner Road) Existing one through lane and one right turn lane.
Westbound Approach: (Boyds Corner Road) Existing one through lane and one left turn lane.
Northbound Approach: (Whispering Woods Road) Existing one shared left turn/right turn lane.

10. **Boyds Corner Road / Summit Bridge Road (New Castle Road 039) / Summit Bridge Road (New Castle Road 016) / Churchtown Road (New Castle Road 432).**
Type of Control: Existing signalized intersection.
Eastbound Approach: (Churchtown Road) Existing one left turn lane and one shared through/right turn lane.
Westbound Approach: (Boyds Corner Road) Existing two left turn lanes, one through lane, and one right turn lane.
Northbound Approach: (Summit Bridge Road) Existing one left turn lane, two through lanes, and one right turn lane.
Southbound Approach: (Summit Bridge Road) Existing two left turn lanes, two through lanes, and one right turn lane.

11. **Cedar Lane Road and Cedar Lane Elementary School**
Type of Control: Existing two-way stop-controlled intersection (T-intersection)
Eastbound Approach: (Cedar Lane Elementary School Entrance) Existing one left turn lane and one right turn lane.
Northbound Approach: (Cedar Lane Road) Existing one left turn lane and one through lane.
Southbound Approach: (Cedar Lane Road) Existing one right turn lane and one through lane.

12. Cedar Lane Road and MOT Charter High School

Type of Control: Existing two-way stop-controlled intersection (T-intersection)
Eastbound Approach: (MOT Charter High School Entrance) Existing one left turn lane and one right turn lane.
Northbound Approach: (Cedar Lane Road) Existing one left turn lane and one through lane.
Southbound Approach: (Cedar Lane Road) Existing one right turn lane and one through lane.

13. Boyds Corner Road and Bayberry Parkway

Type of Control: Existing signalized intersection. Proposed multi-lane roundabout. *
Eastbound Approach: (Boyds Corner Road) Existing one left turn lane, one through lane, and one right turn lane. Proposed one shared left turn/through lane and one shared through/right turn lane. *
Westbound Approach: (Boyds Corner Road) Existing one left turn lane, one through lane, and one right turn lane. Proposed one shared left turn/through lane and one shared through/right turn lane. *
Northbound Approach: (South Bayberry Parkway) Existing one left turn lane, one through lane, and one right turn lane. Proposed one shared left turn/through lane and one right turn lane. *
Southbound Approach: (North Bayberry Parkway) Existing one left turn lane, one through lane, and one right turn lane. Proposed one shared left turn/through lane and one right turn lane. *

**Proposed configurations are from the Boyds Corner Road, Cedar Lane Road to US Route 13 Project (DelDOT Project No. T200712002)*

14. Boyds Corner Road and Shallcross Lake Road (New Castle Road 428) / Milford Drive

Type of Control: Existing two-way stop-controlled intersection. Proposed multi-lane roundabout. *
Eastbound Approach: (Boyds Corner Road) Existing one left turn lane, one through lane, and one right turn lane. Proposed one shared left turn/through lane, and one shared through/right turn lane. *
Westbound Approach: (Boyds Corner Road) Existing one left turn lane, one through lane, and one right turn lane. Proposed one shared left turn /through lane, and one shared through/right turn lane. *
Northbound Approach: (Shallcross Lake Road) Existing one shared left turn/through lane and one right turn lane. Proposed one shared left turn/through/right turn lane. *
Southbound Approach: (Milford Drive) Existing one shared left turn/through/right turn lane. Proposed one shared left turn/through/right turn lane. *

**Proposed configurations are from the Boyds Corner Road, Cedar Lane Road to US Route 13 Project (DelDOT Project No. T200712002)*

15. Boyds Corner Road and Boyds Farm Drive

Type of Control: Existing two-way stop-controlled intersection. Proposed multi-lane roundabout. *

Eastbound Approach: (Boyds Corner Road) Existing two through lanes and one right turn lane. Proposed one through lane and one shared through/right turn lane. *

Westbound Approach: (Boyds Corner Road) Existing one through lane and one left turn lane. Proposed one through lane and one shared left turn/through lane. *

Northbound Approach: (Boyds Farms Drive) Existing one left turn lane and one right turn lane. Proposed one shared left turn/right turn lane. *

**Proposed configurations are from the Boyds Corner Road, Cedar Lane Road to US Route 13 Project (DelDOT Project No. T200712002)*

16. Boyds Corner Road and Pole Bridge Road (New Castle Road 420) / US Route 13

Type of Control: Existing signalized intersection.

Eastbound Approach: (Boyds Corner Road) Existing two left turn lanes, two through lanes, and one right turn lane.

Westbound Approach: (Pole Bridge Road) Existing one left turn lane, one shared left turn/through lane, one through lane, and one right turn lane.

Northbound Approach: (US Route 13) Existing two left turn lanes, three through lanes, and one right turn lane. Proposed three left turn lanes, three through lanes, and one right turn lane.*

Southbound Approach: (US Route 13) Existing two left turn lanes, three through lanes, and one right turn lane. Proposed two left turn lanes, four through lanes, and one right turn lane.*

**Proposed configurations are improvements from the Southern New Castle County TID.*

Transit, Pedestrian, and Bicycle Facilities

Existing transit service: Per DelDOT Gateway, DART Route 46 exists within the study area along Summit Bridge Road through the intersection with Boyds Corner Road.

Planned transit service: Per email correspondence from William Williamson, Delaware Transit Corporation (DTC) Planner, on December 3, 2024, DART has no recommendations.

Existing bicycle and pedestrian facilities: According to DelDOT's New Castle County Bicycle Map, several study roadways are considered bicycle routes. Summit Bridge Road, Boyds Corner Road, and Pole Bridge Road are considered connector bicycle routes with bikeways. Also, Churchtown is considered connector bicycle route without bikeway.

Pedestrian crosswalks exist along Boyds Corner Road at the intersections with Summit Bridge Road, Whispering Woods Road, Jamison Corner Road, Bayberry Parkway, Shallcross Lake Road, Boyds Farm Drive, and US Route 13, along Jamison Corner Road at the intersections with the US 301 Northbound and Southbound Ramps, Hyetts Corner Road, and Lorewood Grove Road, and along Cedar Lane Road at the intersections with Cedar Lane Elementary School and MOT Charter

High School. A multi-use path exists in the eastbound direction of Boyds Corner Road from Shallcross Lake Road to Boyds Farm Drive. A multi-use path exists in the northbound and southbound directions of Shallcross Lake Road from Boyds Corner Farm to Greylag Road. A multi-use path exists along eastbound Boyds Corner Road on the west side of Whispering Woods Road. A multi-use path exists along the northbound direction of North Bayberry Parkway. Also, a multi-use path exists along Jamison Corner Road from Boyds Corner Road to Lorewood Grove Road, and along Hyetts Corner Road from St. Georges Vo-Tech School to Jamison Corner Road.

Planned bicycle and pedestrian facilities: Per email correspondence from John Fiori, DelDOT's Bicycle Coordinator, on November 15, 2024, DelDOT has the following recommendations:

- Referring to the State Strategies and Spending Map this site is within Level 1, with some within Level 2, where a 10' wide shared-use path (SUP) shall be required along the property frontage. At the north end the SUP shall extend to the roundabout and install a crossing through the southern splitter island that will connect to the existing SUP on the east side of Jamison Corner Road. At the south end an angled termination shall be installed into the existing shoulder.
- Provide internal bicycle racks at each commercial building.
- An internal sidewalk/SUP connection from the frontage SUP is required.
- At this time Active Transportation & Community Connections (ATCC) has no bicycle/pedestrian improvement projects within the area of this project.
- The site shall dedicate right-of-way per the roadway classification and establish a 15' wide permanent easement along the property roadway frontage.
- 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).
- There could be additional and/or revised comments once project is discussed at a pre-submittal meeting and/or plans are submitted for LONO/ENT review/approval.

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 DelDOT's Gateway.

- Jamison Corner Road LTS: 2 and 3.

Crash Evaluation

Per the crash data included in the TIS from October 1, 2021, to November 15, 2024, provided by the Delaware Department of Transportation (DelDOT), a total of 175 crashes were reported within the study area. The number of fatal crashes is zero within the reported period.

29 crashes were reported at Jamison Corner Road and Boyds Corner Road intersection, including 19 rear-end, four angle, three head-on, two sideswipe, and one not a collision between two vehicles.

55 crashes were reported at Boyds Corner Road and Summit Bridge Road/Churchtown Road intersection, including 30 rear-end, 10 angle, 13 sideswipe, and two not a collision between two vehicles.

14 crashes were reported at Boyds Corner Road and Bayberry Parkway intersection, including 6 rear-end, four angle, two head-on, one back-up collision, and one not a collision between two vehicles.

51 crashes were reported at the US Route 13, Boyds Corner Road, and Pole Bridge Road intersection, including 30 rear-end, six angle, 10 sideswipe, and five not a collision between two vehicles.

Previous Comments

No comments.

Sight Distance Evaluation

No sight distance constraints were noted at the proposed site entrance locations per the field visit conducted on November 3, 2024.

General Synchro Analysis Comments

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

1) JMT used HCM 7th edition and Synchro software version 12 to complete the analysis.

2) Per DelDOT's *Development Coordination Manual*, JMT utilized the future intersection PHF of 0.80 for roadways with less than 500 vehicles per hour (vph), 0.88 for roadways between 500 and 1,000 vph, and 0.92 for roadways with more than 1,000 vph, or used the existing PHF if higher.

3) JMT utilized the existing heavy vehicle percentage for each movement greater than 100 vph in the Case 1 - Existing analysis.

4) 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 in the analyses.

5) JMT assumed a heavy vehicle percentage of 3% for site traffic.

6) Per DelDOT's *Development Coordination Manual*, JMT used a heavy vehicle percentage of 3% for each movement greater than 100 vph in Case 2 and Case 3 future scenario analysis, 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 the analysis of future scenarios.

7) JMT utilized a Saturation Flow Rate of 1,900 vehicles per hour per lane for the signalized analysis.

Table 2
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Unsignalized Intersection Two-Way Stop Control[1]	**LOS per JMT**	
1) Jamison Corner Road (New Castle Road 413) / Site Entrance 1	Weekday AM	Weekday PM
Case 2 – 2027 without Development, *T-Intersection*[2]		
Westbound Scott Run Northern Entrance Shared Left Turn/Through	F (*)	F (*)
Westbound Scott Run Northern Entrance Shared Left Turn/Through 95th Percentile Queue Length	443’	433’
Southbound Jamison Corner Road Left Turn	B (10.2)	B (10.1)
Southbound Jamison Corner Road Left Turn 95th Percentile Queue Length	28’	20’
Case 3 – 2027 with Development[3]		
Eastbound Site Entrance 1 Shared Left Turn/Through	F (192.9)	F (*)
Eastbound Site Entrance 1 Shared Left Turn/Through 95th Percentile Queue Length	43’	148’
Westbound Scott Run Northern Entrance Shared Left Turn/Through	F (*)	F (*)
Westbound Scott Run Northern Entrance Shared Left Turn/Through 95th Percentile Queue Length	560’	535’
Northbound Jamison Corner Road Left Turn	A (9.3)	A (9.4)
Northbound Jamison Corner Road Left Turn 95th Percentile Queue Length	5’	3’
Southbound Jamison Corner Road Left Turn	B (10.3)	B (10.3)
Southbound Jamison Corner Road Left Turn 95th Percentile Queue Length	28’	20’

* Delays exceeds 1000 seconds.

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

[2] JMT modeled the intersection as an unsignalized two-way stop-controlled intersection with one through lane and one right turn lane along the Jamison Corner Road northbound approach, one through lane and one left turn lane along the Jamison Corner Road southbound approach, and one shared left turn/through lane and one right turn lane along westbound Scott Run Northern Entrance approach.

[3] JMT modeled the intersection as an unsignalized two-way stop-controlled intersection with one left turn lane, one through lane, and one right turn lane along the Jamison Corner Road northbound and southbound approaches, and one shared left turn/through lane and one right turn lane along westbound Scott Run Northern Entrance and eastbound Site Entrance 1 approaches.

Table 2 (Continued)
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Signalized Intersection/Roundabout[1]	**LOS per JMT**	
1) Jamison Corner Road (New Castle Road 413) / Site Entrance 1	Weekday AM	Weekday PM
Case 2 – 2027 without Development, *T-Intersection*[4]	B (12.5)	B (12.0)
Westbound Scott Run Northern Entrance Shared Left Turn/Through 95th Percentile Queue Length	260’	250’
Southbound Jamison Corner Road Left Turn 95th Percentile Queue Length	83’	53’
Case 3 – 2027 with Development[5]	B (18.8)	C (23.8)
Eastbound Site Entrance 1 Shared Left Turn/Through 95th Percentile Queue Length	53’	178’
Westbound Scott Run Northern Entrance Shared Left Turn/Through 95th Percentile Queue Length	398’	410’
Northbound Jamison Corner Road Left Turn 95th Percentile Queue Length	15’	10’
Southbound Jamison Corner Road Left Turn 95th Percentile Queue Length	165’	133’
Case 3 – 2027 with Development, *single lane roundabout*		
Eastbound Site Entrance 1 Approach 95th Percentile Queue Length	0’	25’
Westbound Scott Run Northern Entrance Approach 95th Percentile Queue Length	50’	50’
Northbound Jamison Corner Road Approach 95th Percentile Queue Length	125’	150’
Southbound Jamison Corner Road Approach 95th Percentile Queue Length	325’	300’
Overall	C (19.8)	C (18.7)

[4] JMT analyzed the intersection as a signalized intersection using a cycle length of 120 seconds in the AM and PM peak hours, with one shared left turn/through lane and one right turn lane along westbound Scott Run Northern Entrance approach, one through lane and one right turn lane along the Jamison Corner Road northbound approach, and one through lane along the Jamison Corner Road southbound approach.

[5] JMT analyzed the intersection as a signalized intersection with split phasing using a cycle length of 120 seconds in the AM and PM peak hours with Jamison Corner Road northbound and southbound left turns and U-turns controlled by a permissive phase, with one shared left turn/through lane and one right turn lane along eastbound Site Entrance 1 and westbound Scott Run Northern Entrance approaches, and one separate left turn lane, one through lane, and one right turn lane along the Jamison Corner Road northbound and southbound approaches.

Table 3
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Unsignalized Intersection Two-Way Stop Control[1]	**LOS per JMT**	
2) Jamison Corner Road / Site Entrance 2	Weekday AM	Weekday PM
Case 2 – 2027 without Development, *T-Intersection* [6]		
Westbound Scott Run Middle Entrance Approach	B (12.2)	B (13.0)
Case 3 – 2027 with Development[7]		
Eastbound Site Entrance 2 Approach	B (14.4)	C (18.3)
Westbound Scott Run Middle Entrance Approach	B (12.9)	B (13.8)

[6] JMT modeled the intersection as an unsignalized two-way stop-controlled intersection, with one right turn lane along westbound Scott Run Middle Entrance approach, one through lane and one right turn lane along the Jamison Corner Road northbound approach, and one through lane along the Jamison Corner Road southbound approach.
[7] JMT modeled the intersection as an unsignalized two-way stop-controlled intersection, with one right turn lane along eastbound Site Entrance 2 and westbound Scott Run Middle Entrance approaches, and one through lane and one right turn lane along the Jamison Corner Road northbound and southbound approaches.

Table 4
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Unsignalized Intersection Two-Way Stop Control[1]	**LOS per JMT**	
3) Jamison Corner Road / Site Entrance 3	Weekday AM	Weekday PM
Case 2 – 2027 without Development, *T-Intersection*[8]		
Westbound Scott Run Southern Entrance Shared Left Turn/Through	D (32.4)	E (40.1)
Westbound Scott Run Southern Entrance Shared Left Turn/Through 95th Percentile Queue Length	5’	18’
Southbound Jamison Corner Road Left Turn	A (9.1)	A (8.9)
Southbound Jamison Corner Road Left Turn 95th Percentile Queue Length	5’	3’
Case 3 – 2027 with Development[9]		
Eastbound Site Entrance 3 Shared Left Turn/Through	F (90.6)	F (177.6)
Eastbound Site Entrance 3 Shared Left Turn/Through 95th Percentile Queue Length	23’	90’
Westbound Scott Run Southern Entrance Shared Left Turn/Through	F (75.1)	F (107.4)
Westbound Scott Run Southern Entrance Shared Left Turn/Through 95th Percentile Queue Length	10’	40’
Northbound Jamison Corner Road Left Turn	A (9.9)	B (10.5)
Northbound Jamison Corner Road Left Turn 95th Percentile Queue Length	10’	3’
Southbound Jamison Corner Road Left Turn	A (9.3)	A (8.9)
Southbound Jamison Corner Road Left Turn 95th Percentile Queue Length	5’	3’

[8] JMT modeled the intersection as an unsignalized two-way stop-controlled intersection with one through lane and one right turn lane along the Jamison Corner Road northbound approach, one through lane and one left turn lane along the Jamison Corner Road southbound approach, and one shared left turn/through lane and one right turn lane along westbound Scott Run Southern Entrance approach.

[9] JMT modeled the intersection as an unsignalized two-way stop-controlled intersection with one left turn lane, one through lane, and one right turn lane along the Jamison Corner Road northbound and southbound approaches, and one shared left turn/through lane and one right turn lane along westbound Scott Run Southern Entrance and eastbound Site Entrance 3 approaches.

Table 4 (Continued)
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Signalized Intersection / Roundabout[1]	**LOS per JMT**	
3) Jamison Corner Road / Site Entrance 3	Weekday AM	Weekday PM
Case 2 – 2027 without Development, *T-Intersection*[10]	A (2.0)	A (3.8)
Westbound Scott Run Southern Entrance Shared Left Turn/Through 95th Percentile Queue Length	13’	35’
Southbound Jamison Corner Road Left Turn 95th Percentile Queue Length	3’	0’
Case 3 – 2027 with Development[11]	A (5.4)	A (10.6)
Eastbound Site Entrance 3 Shared Left Turn/Through 95th Percentile Queue Length	48’	145’
Westbound Scott Run Northern Entrance Shared Left Turn/Through 95th Percentile Queue Length	25’	75’
Northbound Jamison Corner Road Left Turn 95th Percentile Queue Length	25’	13’
Southbound Jamison Corner Road Left Turn 95th Percentile Queue Length	5’	3’
Case 3 – 2027 with Development, *single lane roundabout*		
Eastbound Site Entrance 3 Shared Left Turn/Through 95th Percentile Queue Length	0’	25’
Westbound Scott Run Northern Entrance Shared Left Turn/Through 95th Percentile Queue Length	0’	0’
Northbound Jamison Corner Road Left Turn 95th Percentile Queue Length	100’	75’
Southbound Jamison Corner Road Left Turn 95th Percentile Queue Length	125’	225’
Overall	B (10.8)	B (12.9)

[10] JMT analyzed the intersection as a signalized intersection using a cycle length of 120 seconds in the AM and PM peak hours, with one shared left turn/through lane and one right turn lane along westbound Scott Run Northern Entrance approach, one through lane and one right turn lane along the Jamison Corner Road northbound approach, and one through lane along the Jamison Corner Road southbound approach.

[11] JMT analyzed the intersection as a signalized intersection with split phasing using a cycle length of 120 seconds in the AM and PM peak hours with Jamison Corner Road northbound and southbound left turns and U-turns controlled by a permissive phase, with one shared left turn/through lane and one right turn lane along eastbound Site Entrance 1 and westbound Scott Run Northern Entrance approaches, and one separate left turn lane, one through lane, and one right turn lane along the Jamison Corner Road northbound and southbound approaches.

Table 5
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Roundabout[1]	**LOS per JMT**	
4A) Jamison Corner Road / US 301 NB Ramps	Weekday AM	Weekday PM
Case 1 – 2024 Existing[12]		
Eastbound US 301 NB Ramps Approach	A (4.5)	A (4.1)
Northbound Jamison Corner Road Approach	A (5.3)	A (3.8)
Southbound Jamison Corner Road Approach	A (5.2)	A (5.6)
Overall	A (5.2)	A (5.1)
Case 2 – 2027 without Development[12]		
Eastbound US 301 NB Ramps Approach	B (12.1)	B (11.6)
Northbound Jamison Corner Road Approach	B (11.4)	B (10.6)
Southbound Jamison Corner Road Approach	B (11.9)	B (12.3)
Overall	B (11.7)	B (11.6)
Case 3 – 2027 with Development[12]		
Eastbound US 301 NB Ramps Approach	B (14.8)	B (12.3)
Northbound Jamison Corner Road Approach	B (12.3)	B (13.0)
Southbound Jamison Corner Road Approach	C (15.3)	B (13.4)
Overall	B (14.2)	B (13.2)

[12] JMT analyzed the intersection as a single lane roundabout.

Table 6
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Roundabout[1]	**LOS per JMT**	
4B) Jamison Corner Road / US 301 SB Ramps	Weekday AM	Weekday PM
Case 1 – 2024 Existing[12]		
Westbound US 301 SB Ramps Approach	A (3.9)	A (3.8)
Northbound Jamison Corner Road Approach	A (3.9)	A (3.7)
Southbound Jamison Corner Road Approach	A (5.2)	A (6.4)
Overall	A (4.6)	A (5.5)
Case 2 – 2027 without Development[12]		
Westbound US 301 SB Ramps Approach	A (6.7)	A (10.0)
Northbound Jamison Corner Road Approach	A (5.8)	A (7.2)
Southbound Jamison Corner Road Approach	C (15.9)	C (23.2)
Overall	B (11.4)	C (15.4)
Case 3 – 2027 with Development[12]		
Westbound US 301 SB Ramps Approach	A (7.5)	B (11.4)
Northbound Jamison Corner Road Approach	A (5.9)	A (7.8)
Southbound Jamison Corner Road Approach	C (23.5)	D (29.1)
Overall	C (15.8)	C (18.4)

Table 7
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Roundabout[1]	**LOS per JMT**	
5) Jamison Corner Road / Hyetts Corner Road (New Castle Road 413)	Weekday AM	Weekday PM
Case 1 – 2024 Existing[12]		
Westbound Hyetts Corner Road Approach	A (4.2)	A (4.0)
Northbound Jamison Corner Road Approach	A (4.3)	A (3.9)
Southbound Jamison Corner Road Approach	A (5.1)	A (5.8)
Overall	A (4.6)	A (5.0)
Case 2 – 2027 without Development[12]		
Westbound Hyetts Corner Road Approach	A (6.2)	A (8.5)
Northbound Jamison Corner Road Approach	A (6.6)	A (9.2)
Southbound Jamison Corner Road Approach	B (11.7)	B (12.2)
Overall	A (9.2)	A (10.6)
Case 3 – 2027 with Development[12]		
Westbound Hyetts Corner Road Approach	A (6.5)	A (9.1)
Northbound Jamison Corner Road Approach	A (6.7)	A (9.9)
Southbound Jamison Corner Road Approach	B (13.8)	B (13.1)
Overall	B (10.4)	B (11.3)

Table 8
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Roundabout[1]	**LOS per JMT**	
6) Jamison Corner Road / Lorewood Grove Road (New Castle Road 412)	Weekday AM	Weekday PM
Case 1 – 2024 Existing[12]		
Eastbound Lorewood Grove Road Approach	A (4.5)	A (5.0)
Northbound Jamison Corner Road Approach	A (3.8)	A (3.8)
Southbound Lorewood Grove Road Approach	A (5.3)	A (5.8)
Overall	A (4.7)	A (5.3)
Case 2 – 2027 without Development[12]		
Eastbound Lorewood Grove Road Approach	C (17.3)	C (18.3)
Northbound Jamison Corner Road Approach	A (7.9)	B (12.4)
Southbound Lorewood Grove Road Approach	B (11.3)	F (58.8)
Southbound Lorewood Grove Road Approach 95th Percentile Queue Length	-	500’
Overall	B (13.0)	D (33.9)
Case 3 – 2027 with Development[12]		
Eastbound Lorewood Grove Road Approach	C (20.4)	C (19.3)
Northbound Jamison Corner Road Approach	A (8.1)	B (13.5)
Southbound Lorewood Grove Road Approach	B (12.6)	F (64.9)
Southbound Lorewood Grove Road Approach 95th Percentile Queue Length	-	525’
Overall	B (14.6)	E (36.9)
Case 3 – 2027 with Development and *Improvement Scenario 1*[13]		
Eastbound Lorewood Grove Road Approach	C (15.4)	B (14.4)
Northbound Jamison Corner Road Approach	A (7.2)	B (11.5)
Southbound Lorewood Grove Road Approach	A (6.4)	B (10.0)
Southbound Lorewood Grove Road Approach 95th Percentile Queue Length	-	75’
Overall	B (10.1)	B (11.6)

[13] Improvement scenario 1 is in accordance with the Southern New Castle County TID improvement to utilize a multi-lane roundabout. JMT analyzed the intersection as a multi-lane roundabout with one shared left turn/right turn lane along the eastbound Lorewood Grove Road approach, one shared left turn/through lane along Jamison Corner Road northbound, and one through lane and one shared through/right turn lane along the Jamison Corner Road southbound approach.

Table 9
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Signalized Intersection[1]	**LOS per JMT**	
7) Jamison Corner Road / Boyds Corner Road (New Castle Road 015) / Cedar Lane Road (New Castle Road 427)	Weekday AM	Weekday PM
Case 1 – 2024 Existing *with DelDOT Timing*	D (44.6)	D (36.6)
Case 1 – 2024 Existing *with signal optimization*[14]	D (43.3)	C (34.7)
Case 2 – 2027 without Development *with signal optimization*[14, 15]	F (146.0)	F (168.8)
Eastbound Boyds Corner Road Through 95th Percentile Queue Length	1218’	1690’
Westbound Boyds Corner Road Through 95th Percentile Queue Length	1425’	1128’
Northbound Cedar Lane Road Left Turn 95th Percentile Queue Length	560’	530’
Southbound Jamison Corner Road Through 95th Percentile Queue Length	808’	898’
Case 3 – 2027 with Development *with signal optimization*[14, 15]	F (161.2)	F (179.4)
Eastbound Boyds Corner Road Through 95th Percentile Queue Length	1273’	1885’
Westbound Boyds Corner Road Through 95th Percentile Queue Length	1548’	1235’
Northbound Cedar Lane Road Left Turn 95th Percentile Queue Length	695’	573’
Southbound Jamison Corner Road Through 95th Percentile Queue Length	840’	898’

[14] Signal optimization scenario includes optimizing green split times while maintaining the existing cycle length.
[15] JMT analyzed the intersection as a signalized intersection with split phasing using a cycle length of 120 seconds in the AM peak hour and 120 seconds in the PM peak hour with Boyds Corner Road eastbound and westbound left turns and U-turns controlled by a protected permissive phase, with one left turn lane, one through lane, and one right turn lane along eastbound and westbound Boyds Corner Road approaches and southbound Jamison Corner Road approach, and one shared left turn/through lane and one right turn lane along northbound Cedar Lane Road approach. The signal is along a coordinated corridor.

Table 9 (Continued)
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Signalized Intersection[1]	**LOS per JMT**	
7) Jamison Corner Road / Boyds Corner Road (New Castle Road 015) / Cedar Lane Road (New Castle Road 427)	Weekday AM	Weekday PM
Case 3 – 2027 with Development *with signal optimization and Improvement Scenario 1*[14, 16]	D (48.4)	D (51.3)
Eastbound Boyds Corner Road Through 95th Percentile Queue Length	363’	428’
Westbound Boyds Corner Road Through 95th Percentile Queue Length	410’	355’
Northbound Cedar Lane Road Left Turn 95th Percentile Queue Length	190’	170’
Southbound Jamison Corner Road Left Turn 95th Percentile Queue Length	405’	483’

[16] With Improvement Scenario 1, JMT incorporated the lane configurations at the intersection consistent with the improvements proposed as part of the *Boyds Corner Road, Cedar Lane Road to US Route 13 Project (DelDOT Project No. T200712002)* with two left turn lanes, two through lanes, and one right turn lane along the eastbound and westbound Boyds Corner Road approaches and one left turn lane, two through lanes, and one right turn lane along the northbound Cedar Lane Road and southbound Jamison Corner Road approaches. The signalized intersection was analyzed with split phasing using a cycle length of 120 seconds in the AM and PM peak hour with Boyds Corner Road eastbound and westbound left turns and U-turns controlled by a protected phase. The signal was analyzed within a coordinated corridor.

Table 10
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Unsignalized Intersection **Two-Way Stop Control (T-Intersection)**[1]	**LOS per JMT**	
8) Boyds Corner Road / Ratledge Road (New Castle Road 414)	Weekday AM	Weekday PM
Case 1 – 2024 Existing[17]		
Eastbound Boyds Corner Road Left Turn	A (9.7)	A (9.0)
Southbound Ratledge Road Approach	F (60.7)	C (17.5)
Southbound Ratledge Road Approach 95th Percentile Queue Length	143’	-
Case 2 – 2027 without Development[17]		
Eastbound Boyds Corner Road Left Turn	B (12.6)	B (11.5)
Southbound Ratledge Road Approach	F (*)	F (268.6)
Southbound Ratledge Road Approach 95th Percentile Queue Length	858’	433’
Case 3 – 2027 with Development[17]		
Eastbound Boyds Corner Road Left Turn	B (12.8)	B (12.1)
Southbound Ratledge Road Approach	F (*)	F (*)
Southbound Ratledge Road Approach 95th Percentile Queue Length	888’	490’

* Delays exceeds 1000 seconds.

[17] JMT analyzed the intersection as a two-way stop-controlled intersection with one shared left turn/through lane along with a bypass lane along the eastbound Boyds Corner Road approach, one through lane and one right turn lane are provided along the westbound Boyds Corner Road approach, and one shared left turn/right turn lane is provided along the southbound Ratledge Road approach.

Table 10 (Continued)
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Unsignalized (Two-Way Stop Control) / Signalized Intersection[1]	**LOS per JMT**	
8) Boyds Corner Road / Ratledge Road (New Castle Road 414)	Weekday AM	Weekday PM
Case 3 – 2027 with Development and *Improvement Scenario 1*[18]		
Eastbound Boyds Corner Road Left Turn	B (12.8)	B (12.1)
Southbound Ratledge Road Left Turn	F (*)	F (281.8)
Southbound Ratledge Road Left Turn 95th Percentile Queue Length	228’	73’
Southbound Ratledge Road Right Turn	F (125.0)	F (51.4)
Southbound Ratledge Road Right Turn 95th Percentile Queue Length	285’	173’
Case 3 – 2027 with Development and *Improvement Scenario 2*[19]	C (34.0)	C (22.9)
Southbound Ratledge Road Approach 95th Percentile Queue Length	605’	363’
Case 3 – 2027 with Development and *Improvement Scenario 3*[20]	C (23.4)	B (18.3)
Southbound Ratledge Road Left Turn 95th Percentile Queue Length	88’	30’
Southbound Ratledge Road Right Turn 95th Percentile Queue Length	513’	455’

* Delays exceeds 1000 seconds.

[18] Improvement scenario 1 is in accordance with the Southern New Castle County TID improvement to modify the southbound Ratledge Road approach. JMT analyzed the intersection as a two-way stop-controlled intersection with one left turn lane and one through lane along the eastbound Boyds Corner Road approach, one through lane and one right turn lane are provided along the westbound Boyds Corner Road approach, and one left turn lane and one right turn lane is provided along the southbound Ratledge Road approach.

[19] Improvement scenario 2 is in accordance with the Southern New Castle County TID improvement to signalize the intersection. JMT analyzed the intersection as a signalized intersection with 120 second cycle length with a permissive left turn phasing along eastbound Boyds Corner Road. One left turn lane and one through lane along the eastbound Boyds Corner Road approach, one through lane and one right turn lane are provided along the westbound Boyds Corner Road approach, and one shared left turn/right turn lane is provided along the southbound Ratledge Road approach.

[20] Improvement scenario 3 is to signalize the intersection with a 120 second cycle length and permissive left turn phasing along eastbound Boyds Corner Road. One left turn lane and one through lane along the eastbound Boyds Corner Road approach, one through lane and one right turn lane are provided along the westbound Boyds Corner Road approach, and one left turn lane and one right turn lane are provided along the southbound Ratledge Road approach.

Table 11
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Unsignalized Intersection **Two-Way Stop Control (T-Intersection)**[1]	**LOS per JMT**	
9) Boyds Corner Road / Whispering Woods Road	Weekday AM	Weekday PM
Case 1 – 2024 Existing		
Westbound Boyds Corner Road Left Turn	A (9.4)	A (9.7)
Northbound Whispering Woods Road Approach	D (28.6)	D (31.6)
Case 2 – 2027 without Development		
Westbound Boyds Corner Road Left Turn	B (10.9)	B (11.7)
Northbound Whispering Woods Road Approach	F (93.2)	F (110.2)
Northbound Whispering Road Approach 95th Percentile Queue Length	35’	38’
Case 3 – 2027 with Development		
Westbound Boyds Corner Road Left Turn	B (11.4)	B (11.9)
Northbound Whispering Woods Road Approach	F (113.9)	F (134.1)
Northbound Whispering Road Approach 95th Percentile Queue Length	40’	43’

Table 11 (Continued)
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Signalized Intersection (T-Intersection) / Roundabout[1]	**LOS per JMT**	
9) Boyds Corner Road / Whispering Woods Road	Weekday AM	Weekday PM
Case 3 – 2027 with Development and *Improvement Scenario 1*[21]	A (7.1)	A (6.0)
Case 3 – 2027 with Development and *Improvement Scenario 2*[12]		
Eastbound Boyds Corner Road Approach	E (37.4)	E (44.7)
Westbound Boyds Corner Road Approach	F (69.2)	D (33.2)
Northbound Whispering Woods Road Approach	B (11.6)	B (11.9)
Overall	F (54.1)	E (39.0)
Case 3 – 2027 with Development and *Improvement Scenario 3*[22]		
Eastbound Boyds Corner Road Approach	A (8.0)	A (7.9)
Westbound Boyds Corner Road Approach	A (8.8)	A (7.6)
Northbound Whispering Woods Road Approach	A (8.9)	A (9.1)
Overall	A (8.4)	A (7.8)

[21] With Improvement Scenario 1, JMT analyzed the intersection as a signalized intersection with 120 second cycle length with a permissive left turn phasing along westbound Boyds Corner Road. One through lane and one right turn lane are provided along the eastbound Boyds Corner Road approach, one left turn lane and one through lane are provided along the westbound Boyds Corner Road approach, and one shared left turn/right turn lane is provided along the northbound Whispering Woods Road approach.

[22] With Improvement Scenario 3, JMT analyzed the intersection as a multi-lane roundabout with one through lane and one shared through/right turn lane along eastbound Boyds Corner Road approach, one through lane and one shared left turn/through lane along westbound Boyds Corner Road approach, and one shared left turn/right turn lane along the northbound Whispering Woods Road approach.

Table 12
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Signalized Intersection[1]	**LOS per JMT**	
10) Boyds Corner Road / Summit Bridge Road (New Castle Road 039) / Summit Bridge Road (New Castle Road 016) / Churchtown Road (New Castle Road 432)	Weekday AM	Weekday PM
Case 1 – 2024 Existing *with DelDOT Timing*	C (34.4)	C (29.1)
Case 1 – 2024 Existing *with signal optimization*[14, 20]	C (34.1)	C (28.3)
Case 2 – 2027 without Development *with signal optimization*[14, 20]	F (91.8)	D (40.8)
Eastbound Churchtown Road Left Turn 95th Percentile Queue Length	393’	-
Westbound Boyds Corner Road Left Turn 95th Percentile Queue Length	95’	-
Northbound Summit Bridge Road Through 95th Percentile Queue Length	838’	-
Southbound Summit Bridge Road Left Turn 95th Percentile Queue Length	575’	-
Case 3 – 2027 with Development *with signal optimization*[14, 23]	F (96.6)	D (42.4)
Eastbound Churchtown Road Left Turn 95th Percentile Queue Length	393’	-
Westbound Boyds Corner Road Left Turn 95th Percentile Queue Length	100’	-
Northbound Summit Bridge Road Through 95th Percentile Queue Length	838’	-
Southbound Summit Bridge Road Left Turn 95th Percentile Queue Length	630’	-

[23] JMT analyzed the intersection as a signalized intersection with split phasing using a cycle length of 90 seconds in the AM peak hour and 90 seconds in the PM peak hour with Summit Bridge Road northbound and southbound left turns and U-turns controlled by a protected phase. The lane configurations included one left turn lane and a shared through/right turn lane along the eastbound Churchtown Road approach, two left turn lanes, one through lane and one right turn lane along the westbound Boyds Corner Road approach, one left turn lane, two through lanes and one right turn lane along the northbound Summit Bridge Road approach, and two left turn lanes, two through lanes and one right turn lane along the southbound Summit Bridge Road approach.

Table 12 (Continued)
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Signalized Intersection[1]	**LOS per JMT**	
10) Boyds Corner Road / Summit Bridge Road (New Castle Road 039) / Summit Bridge Road (New Castle Road 016) / Churchtown Road (New Castle Road 432)	Weekday AM	Weekday PM
Case 3 – 2027 with Development *with Cycle Length Modification*[24]	D (55.0)	D (43.8)
Eastbound Churchtown Road Left Turn 95th Percentile Queue Length	293’	-
Westbound Boyds Corner Road Left Turn 95th Percentile Queue Length	188’	-
Northbound Summit Bridge Road Through 95th Percentile Queue Length	830’	-
Southbound Summit Bridge Road Left Turn 95th Percentile Queue Length	568’	-

[24] JMT analyzed the intersection as a signalized intersection with concurrent phasing using a cycle length of 150 seconds in the AM and PM peak hour with the Summit Bridge Road northbound and southbound left turns and U-turns and also the eastbound Churchtown Road and westbound Boyds Corner Road left turns controlled by a protected phase. The lane configurations include one left turn lane and a shared through/right turn lane along the eastbound Churchtown Road approach, two left turn lanes, one through lane and one right turn lane along the westbound Boyds Corner Road approach, one left turn lane, two through lanes and one right turn lane along the northbound Summit Bridge Road approach, and two left turn lanes, two through lanes and one right turn lane along the southbound Summit Bridge Road approach.

Table 13
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Unsignalized Intersection **Two-Way Stop Control (T-Intersection)**[1]	**LOS per JMT**	
11) Cedar Lane Road and Cedar Lane Elementary School	Weekday AM	Weekday PM
Case 1 – 2024 Existing		
Eastbound Cedar Lane Elementary School Left Turn	F (86.7)	E (37.7)
Eastbound Cedar Lane Elementary School Left Turn 95th Percentile Queue Length	155’	105’
Eastbound Cedar Lane Elementary School Right Turn	B (12.4)	B (11.5)
Northbound Cedar Lane Road Left Turn	A (10.0)	A (8.8)
Case 2 – 2027 without Development		
Eastbound Cedar Lane Elementary School Left Turn	F (170.2)	F (*)
Eastbound Cedar Lane Elementary School Left Turn 95th Percentile Queue Length	180’	358’
Eastbound Cedar Lane Elementary School Right Turn	B (14.3)	C (16.1)
Northbound Cedar Lane Road Left Turn	B (10.5)	B (10.2)
Case 3 – 2027 with Development		
Eastbound Cedar Lane Elementary School Left Turn	F (200.1)	F (*)
Eastbound Cedar Lane Elementary School Left Turn 95th Percentile Queue Length	193’	373’
Eastbound Cedar Lane Elementary School Right Turn	B (14.4)	C (16.6)
Northbound Cedar Lane Road Left Turn	B (10.5)	B (10.3)

* Delays exceeds 1000 seconds.

Table 13 (Continued)
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Signalized Intersection (T-Intersection) / Roundabout[1]	**LOS per JMT**	
11) Cedar Lane Road and Cedar Lane Elementary School	Weekday AM	Weekday PM
Case 3 – 2027 with Development and *Improvement Scenario 1*[25]	A (8.7)	B (11.5)
Case 3 – 2027 with Development and *Improvement Scenario 2*[26]		
Eastbound Cedar Lane Elementary School Approach	B (10.2)	B (14.6)
Northbound Cedar Lane Road Approach	B (13.1)	B (14.8)
Southbound Cedar Lane Road Approach	C (17.1)	B (13.8)
Overall	B (14.7)	B (14.3)

[25] With Improvement Scenario 1, JMT analyzed the intersection as a signalized intersection with 120 second cycle length with a permissive left turn phasing along northbound Cedar Lane Road with one left turn lane and one right turn lane along eastbound Cedar Lane Elementary School approach, and one left turn lane and one through lane along northbound Cedar Lane approach, and one through lane and one right turn lane along southbound Cedar Lane Road approach. Note, to generate the HCM results, the speed limits set to 25 mph instead of the existing 20 mph speed limit of the approaching movements.

[26] With Improvement Scenario 2, JMT analyzed the intersection as a single-lane roundabout.

Table 14
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Unsignalized Intersection **Two-Way Stop Control (T-Intersection)**[1]	**LOS per JMT**	
12) Cedar Lane Road and MOT Charter High School	Weekday AM	Weekday PM
Case 1 – 2024 Existing		
Eastbound MOT Charter High School Left Turn	E (43.7)	C (17.1)
Eastbound MOT Charter High School Left Turn 95th Percentile Queue Length	63’	-
Eastbound MOT Charter High School Right Turn	B (11.3)	B (11.2)
Northbound Cedar Lane Road Left Turn	A (9.4)	A (8.4)
Case 2 – 2027 without Development		
Eastbound MOT Charter High School Left Turn	F (76.9)	F (52.7)
Eastbound MOT Charter High School Left Turn 95th Percentile Queue Length	85’	43’
Eastbound MOT Charter High School Right Turn	B (12.8)	C (15.1)
Northbound Cedar Lane Road Left Turn	A (9.9)	A (9.8)
Case 3 – 2027 with Development		
Eastbound MOT Charter High School Left Turn	F (88.0)	F (57.0)
Eastbound MOT Charter High School Left Turn 95th Percentile Queue Length	93’	45’
Eastbound MOT Charter High School Right Turn	B (12.9)	C (15.5)
Northbound Cedar Lane Road Left Turn	A (9.9)	A (9.9)

Table 14 (Continued)
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Signalized Intersection (T-Intersection) / Roundabout[1]	**LOS per JMT**	
12) Cedar Lane Road and MOT Charter High School	Weekday AM	Weekday PM
Case 3 – 2027 with Development and *Improvement Scenario 1*[27]	A (6.8)	A (4.6)
Case 3 – 2027 with Development and *Improvement Scenario 2*[28]		
Eastbound MOT Charter High School Approach	A (7.5)	B (8.3)
Northbound Cedar Lane Road Approach	B (12.1)	B (9.5)
Southbound Cedar Lane Road Approach	B (13.3)	B (11.6)
Overall	B (13.4)	B (10.5)

[27] With Improvement Scenario 1, JMT analyzed the intersection as a signalized intersection with 120 second cycle length with a permissive left turn phasing along northbound Cedar Lane Road with one left turn lane and one right turn lane along eastbound MOT Charter High School approach, and one left turn lane and one through lane along northbound Cedar Lane approach, and one through lane and one right turn lane along southbound Cedar Lane Road approach. Note, to generate the HCM results, the speed limits set to 25 mph instead of the existing 20 mph speed limit of the approaching movements.

[28] With Improvement scenario 2, JMT analyzed the intersection as a single-lane roundabout.

Table 15
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Signalized Intersection[1]	**LOS per JMT**	
13) Boyds Corner Road / Bayberry Parkway	Weekday AM	Weekday PM
Case 1 – 2024 Existing *with DelDOT Timing*	C (21.7)	B (17.9)
Case 1 – 2024 Existing *with signal optimization*[14, 29]	C (21.7)	B (17.8)
Case 2 – 2027 without Development *with signal optimization*[14, 29]	F (100.5)	F (141.2)
Eastbound Boyds Corner Road Through 95th Percentile Queue Length	1940’	2085’
Westbound Boyds Corner Road Through 95th Percentile Queue Length	1445’	2375’
Northbound Bayberry Parkway Left Turn 95th Percentile Queue Length	213’	108’
Southbound Bayberry Parkway Left Turn 95th Percentile Queue Length	295’	415’
Case 3 – 2027 with Development *with signal optimization*[14, 29]	F (106.4)	F (148.7)
Eastbound Boyds Corner Road Through 95th Percentile Queue Length	2003’	2288’
Westbound Boyds Corner Road Through 95th Percentile Queue Length	1558’	2430’
Northbound Bayberry Parkway Left Turn 95th Percentile Queue Length	213’	108’
Southbound Bayberry Parkway Left Turn 95th Percentile Queue Length	295’	415’

[29] JMT analyzed the intersection as a signalized intersection with split phasing using a cycle length of 120 seconds in the AM and PM peak hour with Boyds Corner Road eastbound and westbound left turns and U-turns controlled by a protected permissive phase, with one left turn lane, one through lane, and one right turn lane along eastbound and westbound Boyds Corner Road and northbound and southbound Bayberry Parkway approaches. The signal is along a coordinated corridor.

Table 15 (Continued)
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Roundabout[1]	**LOS per JMT**	
13) Boyds Corner Road / Bayberry Parkway	Weekday AM	Weekday PM
Case 3 – 2027 with Development and *Improvement Scenario 1*[30]		
Eastbound Boyds Corner Road Approach	B (12.4)	D (25.5)
Eastbound Boyds Corner Road Approach 95th Percentile Queue Length	125’	300’
Westbound Boyds Corner Road Approach	B (12.4)	C (17.3)
Westbound Boyds Corner Road Approach 95th Percentile Queue Length	125’	250’
Northbound Bayberry Parkway Approach	D (26.1)	D (29.5)
Northbound Bayberry Parkway Approach 95th Percentile Queue Length	100’	100’
Southbound Bayberry Parkway Approach	C (16.2)	D (31.2)
Southbound Bayberry Parkway Approach 95th Percentile Queue Length	25’	75’
Overall	B (14.1)	C (22.3)

[30] With Improvement Scenario 2, JMT analyzed the intersection as a multi-lane roundabout consistent with the improvements proposed as part of the *Boyds Corner Road, Cedar Lane Road to US Route 13 Project (DelDOT Project No. T200712002)* with one shared left turn/through lane and one shared through/right turn lane along the eastbound and westbound approaches of Boyds Corner Road, and one shared left turn/through lane and one right turn lane along the northbound and southbound Bayberry Parkway approaches.

Table 16
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Unsignalized Intersection **Two-Way Stop Control**[1]	**LOS per JMT**	
14) Boyds Corner Road / Shallcross Lake Road (New Castle Road 428) / Milford Drive	Weekday AM	Weekday PM
Case 1 – 2024 Existing		
Eastbound Boyds Corner Road Left Turn	A (9.2)	B (10.2)
Westbound Boyds Corner Road Left Turn	A (9.7)	A (9.9)
Northbound Shallcross Lake Road Left Turn/Through	F (77.7)	F (*)
Northbound Shallcross Lake Road Shared Left Turn/Through 95th Percentile Queue Length	25’	133’
Southbound Milford Drive Approach	F (74.3)	F (66.5)
Southbound Milford Drive Approach 95th Percentile Queue Length	105’	65’
Case 2 – 2027 without Development		
Eastbound Boyds Corner Road Left Turn	B (11.9)	C (17.0)
Westbound Boyds Corner Road Left Turn	B (14.3)	C (17.5)
Northbound Shallcross Lake Road Left Turn/Through	F (*)	F (*)
Northbound Shallcross Lake Road Shared Left Turn/Through 95th Percentile Queue Length	198.0’	340.0’
Southbound Milford Drive Approach	F (*)	F (*)
Southbound Milford Drive Approach 95th Percentile Queue Length	468.0’	358.0’
Case 3 – 2027 with Development		
Eastbound Boyds Corner Road Left Turn	B (12.0)	C (17.2)
Westbound Boyds Corner Road Left Turn	B (14.4)	C (18.1)
Northbound Shallcross Lake Road Left Turn/Through	F (*)	F (*)
Northbound Shallcross Lake Road Shared Left Turn/Through 95th Percentile Queue Length	200’	343’
Southbound Milford Drive Approach	F (*)	F (*)
Southbound Milford Drive Approach 95th Percentile Queue Length	470’	360’

*Delay exceeds 1,000 seconds.

Table 16 (Continued)
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Roundabout[1]	**LOS per JMT**	
14) Boyds Corner Road / Shallcross Lake Road (New Castle Road 428) / Milford Drive	Weekday AM	Weekday PM
Case 3 – 2027 with Development and *Improvement Scenario 1*[31]		
Eastbound Boyds Corner Road Approach	B (13.2)	C (15.4)
Westbound Boyds Corner Road Approach	A (8.7)	C (17.1)
Northbound Shallcross Lake Road Approach	C (22.0)	C (24.8)
Northbound Shallcross Lake Road Approach 95th Percentile Queue Length	50’	50’
Southbound Milford Drive Approach	B (14.2)	C (23.1)
Southbound Milford Drive Approach 95th Percentile Queue Length	25’	50’
Overall	B (11.8)	C (16.8)

[31] With Improvement Scenario 1, JMT analyzed the intersection as a multi-lane roundabout consistent with the improvements proposed as part of the *Boyds Corner Road, Cedar Lane Road to US Route 13 Project (DelDOT Project No. T200712002)* with one shared left turn/through lane and one shared through/right turn lane along the eastbound and westbound approaches of Boyds Corner Road, and one shared left turn/through/right turn lane along the northbound Shallcross Lake Road and southbound Milford Drive approaches.

Table 17
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Unsignalized Intersection **Two-Way Stop Control (T-Intersection)**[1]	**LOS per JMT**	
15) Boyds Corner Road / Boyds Farm Drive	Weekday AM	Weekday PM
Case 1 – 2024 Existing		
Westbound Boyds Corner Road Left Turn	B (10.0)	B (11.6)
Northbound Boyds Farm Drive Left Turn	E (44.8)	F (74.7)
Northbound Boyds Farm Drive Left Turn 95th Percentile Queue Length	5’	23’
Northbound Boyds Farm Drive Right Turn	B (12.1)	B (11.6)
Case 2 – 2027 without Development		
Westbound Boyds Corner Road Left Turn	C (15.1)	C (16.6)
Northbound Boyds Farm Drive Left Turn	F (*)	F (*)
Northbound Boyds Farm Drive Left Turn 95th Percentile Queue Length	330’	680’
Northbound Boyds Farm Drive Right Turn	C (18.1)	C (19.4)
Case 3 – 2027 with Development		
Westbound Boyds Corner Road Left Turn	B (15.3)	C (17.2)
Northbound Boyds Farm Drive Left Turn	F (*)	F (*)
Northbound Boyds Farm Drive Left Turn 95th Percentile Queue Length	333’	683’
Northbound Boyds Farm Drive Right Turn	C (18.3)	C (20.0)

*Delay exceeds 1,000 seconds.

Table 17 (Continued)
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Roundabout[1]	**LOS per JMT**	
15) Boyds Corner Road / Boyds Farm Drive	Weekday AM	Weekday PM
Case 3 – 2027 with Development and *Improvement Scenario 1*[32]		
Eastbound Boyds Corner Road Approach	B (13.1)	B (13.4)
Westbound Boyds Corner Road Approach	A (9.0)	C (17.9)
Northbound Boyds Farm Drive Approach	C (23.5)	F (54.1)
Northbound Boyds Farm Drive Approach 95th Percentile Queue Length	-	200’
Overall	B (12.0)	C (18.6)

[32] With Improvement Scenario 1, JMT analyzed the intersection as a multi-lane roundabout consistent with the improvements proposed as part of the *Boyds Corner Road, Cedar Lane Road to US Route 13 Project (DelDOT Project No. T200712002)* with one through and one shared through/right turn lane along the eastbound Boyds Corner Road approach, one shared left turn/through lane and one through lane along the westbound Boyds Corner Road approach, and one shared left turn/right turn lane along the northbound Boyds Farm Drive approach.

Table 18
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Signalized Intersection[1]	**LOS per JMT**	
16) Boyds Corner Road / Pole Bridge Road (New Castle Road 420) / US Route 13	Weekday AM	Weekday PM
Case 1 – 2024 Existing *with DelDOT Timing*	D (39.8)	D (44.2)
Case 1 – 2024 Existing *with signal optimization*[14, 33]	D (42.0)	D (47.5)
Case 2 – 2027 without Development *with signal optimization*[14, 33]	E (60.1)	F (172.8)
Eastbound Boyds Corner Road Left Turn 95th Percentile Queue Length	308’	303’
Westbound Pole Bridge Road Left Turn 95th Percentile Queue Length	323’	770’
Northbound US Route 13 Through (Left Turn) 95th Percentile Queue Length	535’	338’
Southbound US Route 13 Through 95th Percentile Queue Length	325’	1243’
Case 3 – 2027 with Development *with signal optimization*[14, 33]	E (62.4)	F (172.9)
Eastbound Boyds Corner Road Left Turn 95th Percentile Queue Length	305’	303’
Westbound Pole Bridge Road Left Turn 95th Percentile Queue Length	330’	675’
Northbound US Route 13 Left Turn 95th Percentile Queue Length	573’	1068’
Southbound US Route 13 Through 95th Percentile Queue Length	325’	1308’

[33] JMT analyzed the intersection as a signalized intersection with split phasing along the Boyds Corner Road/Pole Bridge Road approaches and protected only left turn phasing along the US Route 13 approaches with existing lane configuration. The intersection would provide two separate left turn lanes, three through lanes, and one right turn lane along the US Route 13 northbound and southbound approaches, two separate left turn lanes, two through lanes, and one right turn lane along the eastbound Boyds Corner Road approach, and one separate left turn lane, one shared left turn/through lane, one separate through lane, and one separate right turn lane along the westbound Pole Bridge Road approach. JMT modeled the signal using a cycle length of 120 seconds in the AM and PM peak hour. The signal is along a coordinated corridor.

Table 18 (Continued)
Peak Hour Levels of Service (LOS)
Based on Traffic Impact Study for LogistiCenter at New Castle
Report Dated: December 2024
Prepared by: JMT

Signalized Intersection[1]	**LOS per JMT**	
16) Boyds Corner Road / Pole Bridge Road (New Castle Road 420) / US Route 13	Weekday AM	Weekday PM
Case 3 – 2027 with Development *with signal optimization*[34]	D (47.5)	D (50.4)

[34] Consistent with the recommendations from the Southern New Castle County (SNCC) TID, JMT analyzed the intersection as a signalized intersection with split phasing along the Boyds Corner Road/Pole Bridge Road approaches and protected only left turn phasing along the US Route 13 approaches. The intersection would provide three separate left turn lanes, three through lanes, and one right turn lane along the US Route 13 northbound approach and two separate left turn lanes, four through lanes, and one right turn lane along the US Route 13 southbound approach. Along the Boyds Corner Road and Pole Bridge Road approaches, the existing lane configurations would remain. Specifically, two separate left turn lanes, two through lanes, and one right turn lane along the eastbound Boyds Corner Road approach, and one separate left turn lane, one shared left turn/through lane, one separate through lane, and one separate right turn lane along the westbound Pole Bridge Road approach. JMT analyzed the intersection without pedestrian activation due to no pedestrians utilizing the crossings during the traffic counts. JMT modeled the signal using a cycle length of 120 seconds in the AM and PM peak hour. The signal is along a coordinated corridor.

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 respect to or on account of the flight of any and all aircraft over or near the said parcel of land, or for any effects resulting wherefrom including but not limited to noise, air pollution, or any and all other possible damages to or taking of said property resulting from such flights.

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