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

SHANTÉ A. HASTINGS
SECRETARY

May 27, 2025

Ms. Teresa Scrocca, P.E., PTOE
Pennoni Associates, Inc.
121 Continental Drive, Suite 207
Newark, DE 19713

Dear Ms. Scorcca,

The enclosed Traffic Impact Study (TIS) review letter for the proposed **Symphony Glen** (Tax Parcel: 235-25.00-44.00) Residential development has been completed under the responsible charge of a registered professional engineer whose firm is authorized to work in the State of Delaware. They have found the TIS to conform to DelDOT's Development Coordination Manual and other accepted practices and procedures for such studies. DelDOT accepts this letter and concurs with the recommendations. If you have any questions concerning this letter or the enclosed review letter, please contact me at Annamaria.Furmato@delaware.gov.

Sincerely,

Annamaria Furmato
TIS Review Engineer

AF:km
Enclosures
cc with enclosures: John C. Stamato, Ribera Development, LLC
Alan Decktor, Pennoni Associates, Inc.
David L. Edgell, Office of State Planning Coordination
Jamie Whitehouse, Sussex County Planning & Zoning
Andrew J. Parker, McCormick Taylor, Inc.
Tucker Smith, McCormick Taylor, Inc.
DelDOT Distribution

DelDOT Distribution

Lanie Clymer, Deputy Secretary
Mark Luszcz, Chief Engineer, Transportation Solutions (DOTS)
Brad Eaby, Deputy Attorney General, DOTS
Michael Simmons, Chief Project Development South, DOTS
Peter Haag, Chief Traffic Engineer, DOTS
Wendy Carpenter, Traffic Calming & Subdivision Relations Manager, Traffic, DOTS
Sean Humphrey, Traffic Engineer, Traffic, DOTS
Alistair Probert, South District Engineer, M&O
Matt Schlitter, South District Public Works Engineer, M&O
Jared Kauffman, Service Development Planner, DTC
Tremica Cherry, Service Development Planner, DTC
Anthony Aglio, Planning Supervisor, Active Transportation & Community Connections, Planning
Anson Gock, Planner, Statewide & Regional Planning, Planning
Todd Sammons, Assistant Director, Development Coordination
Wendy Polasko, Subdivision Engineer, Development Coordination
John Pietrobono, Acting Sussex Review Coordinator, Development Coordination
Derek Sapp, Sussex Review Engineer, Development Coordination
Sireen Muhtaseb, TIS Engineer, Development Coordination
Ben Fisher, TIS Review Engineer, Development Coordination
Tijah Jones, TIS Review Engineer, Development Coordination

May 22, 2025

Ms. Sireen Muhtaseb, PE
TIS Engineer
DelDOT Development Coordination
P.O. Box 778
Dover, DE 19903

RE: Agreement No. 2139S
Traffic Impact Study Services
Task No. 1 Subtask 3 – Symphony Glen

Dear Ms. Muhtaseb:

McCormick Taylor has completed its review of the Traffic Impact Study (TIS) for the Symphony Glen development prepared by Pennoni Associates Inc., dated March 12, 2025. Pennoni prepared the report in a manner generally consistent with DelDOT's Development Coordination Manual.

The TIS evaluates the impacts of the proposed Symphony Glen development to be located on the west side of Pettyjohn Road (Sussex Road 255) and approximately 1,000 feet north of the intersection of Pettyjohn Road and Prettyman Road (Sussex Road 254), in Sussex County, Delaware. The proposed development would consist of 219 single-family detached houses. Access to the site is proposed along Pettyjohn Road via one full-movement entrance. Construction is anticipated to be completed in 2031.

The subject land is located on an approximately 110-acre parcel. The land is currently zoned as AR-1 (Agricultural Residential) and the developer does not plan to rezone.

Relevant and On-Going Projects and Studies

Currently, DelDOT has no relevant and ongoing projects within the area of study, although there is one study. DelDOT's Coastal Corridors Study aims to study the east-west travel patterns in Sussex County. The study area is comprised of Delaware Route 16 to the north, Delaware Route 404/US Route 9 to the south, the Maryland State line to the west, and Delaware Route 1 to the east. The initial steps in the study will identify the east-west routes and corridors within northwestern Sussex County which are currently congested or are at risk for congestion based on anticipated growth. The study will consider factors such as: longer trips from the Chesapeake Bay Bridge to the Delaware beaches, regional traffic between Maryland's Eastern Shore and Sussex County, and local east-west traffic within the northwestern part of Sussex County. The Coastal Corridors Study report was published in June 2024. The study is currently in the targeted engagement phase. DelDOT has formed the Corridors Committee, comprised of local stakeholders which will work with the Study Team to review data and provide feedback on potential transportation solutions in the study area. Several study recommendations are moving forward, although none are within the Symphony Glen study area. More information about the Coastal Corridors Study can be found at: https://deldot.gov/projects/Studies/404/index.shtml.

Additionally, it is noted that DelDOT's Traffic Section will be converting the intersection of Pettyjohn Road and Prettyman Road from two-way stop-control to all-way stop control. The conversion is anticipated to be implemented in May 2025.

At the intersection of Harbeson Road (Delaware Route 5) / Shingle Point Road / Chestnut Road, DelDOT recently completed a project nomination within the Safety Rollup Program for a future roundabout. This nomination initiates the process to have the planning, design, and construction of a roundabout included in the Capital Transportation Program (CTP). As of May 2025, this project is not included in the CTP. Other developers of pending developments in the area have been asked to contribute to or construct a roundabout at this intersection, independent of the project nomination. Depending on the schedule of these pending developments, a developer contribution towards improvements at this intersection may be facilitated through coordination with the other developers or through a potential CTP project.

Summary of Analysis Results

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

The following intersections exhibit level of service (LOS) deficiencies without the implementation of physical roadway and/or traffic control improvements:

Intersection	*Existing Traffic Control*	*Situations for which deficiencies occur*
3. US Route 9 / Prettyman Road	Unsignalized	2024 existing AM and PM (Case 1) 2031 without development AM and PM (Case 2) 2031 with development AM and PM (Case 3)
4. US Route 9 / Harbeson Road	Signalized	2024 existing AM (Case 1) 2031 without development AM and PM (Case 2) 2031 with development AM and PM (Case 3)
9. Harbeson Road / Shingle Point Road / Chestnut Road	Unsignalized	2031 without development AM (Case 2) 2031 with development AM (Case 3)
10. Harbeson Road / Sand Hill Road	Unsignalized	2031 without development AM and PM (Case 2) 2031 with development AM and PM (Case 3)

3. US Route 9 / Prettyman Road (See Recommendation 3 & Table 4, Page 20)
This unsignalized intersection experiences LOS deficiencies in Cases 1, 2, and 3 on the southbound Prettyman Road approach. In Case 2 during the PM peak hour the southbound approach is expected to operate at LOS F with 684 seconds of delay. In Case 3 with the Symphony Glen development, the southbound approach is expected to operate at LOS F with 800 seconds of delay. These deficiencies could be mitigated by the provision of a signal or a single-lane roundabout. However, due to the nature of the US Route 9 corridor, a roundabout may not be feasible. With a traffic signal, the intersection is expected to operate at LOS B in Cases 2 and 3 during the AM and PM peaks. Additionally, due to safety concerns and multiple proposed developments in the vicinity of this intersection, DelDOT has identified the need to realign a portion of Prettyman Road north

of US Route 9 to address the skewed angle of the intersection. Other developers of pending developments in the area have been asked to contribute to the realignment of a portion of Prettyman Road north of US Route 9. As such, the Symphony Glen developer should make equitable share contributions to the Prettyman Road realignment project.

4. US Route 9 / Harbeson Road (See Recommendation 4 & Table 5, Page 21)
This signalized intersection experiences LOS deficiencies in the Case 1 AM peak and in Cases 2 and 3 during the AM and PM peaks. In Case 2 during the AM peak hour the intersection is expected to operate at LOS F with 99 seconds of delay. In Case 3 with the Symphony Glen development, the intersection is expected to operate at LOS F with 104 seconds of delay. Additionally, DelDOT improved this intersection in 2019 to include a separate left-turn lane on every approach. However, to fully mitigate the LOS deficiency (LOS D or better) at this intersection, it will require adding dedicated right-turn lanes to the eastbound and westbound US Route 9 approaches, but due to environmental, cemetery, and right-of-way constraints at this intersection, these improvements may not be feasible. The developer's responsibility to mitigate deficiencies at this intersection should be limited to a TSRF contribution towards potential future improvements.

9. Harbeson Road / Shingle Point Road / Chestnut Road (See Recommendation 5 & Table 10, Page 26)
This unsignalized intersection experiences LOS deficiencies in Cases 2 and 3 on the northbound and southbound Harbeson Road approaches during the AM peak hour. In Case 2 during the AM peak hour the northbound approach is expected to operate at LOS E with 36 seconds of delay. In Case 3 with the Symphony Glen development, the northbound approach is expected to operate at LOS E with 48 seconds of delay. The intersection was recently converted to all-way stop-control through a DelDOT Traffic initiative to improve safety. A single-lane roundabout would mitigate these deficiencies. With a single-lane roundabout, the intersection is expected to operate at LOS A during both AM and PM peak hours. Other developers of pending developments in the area have been asked to contribute to or construct a roundabout at this intersection. As such, the Symphony Glen developer should make an equitable share contribution to the future roundabout improvement by others at this intersection.

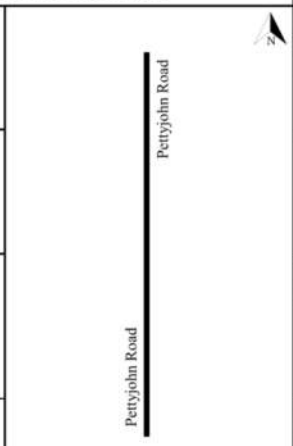
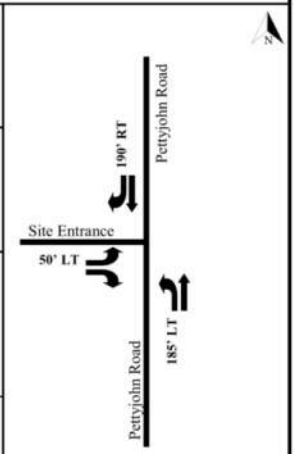
10. Harbeson Road / Sand Hill Road (See Recommendation 6 & Table 11, Page 27)
This unsignalized intersection experiences LOS deficiencies in Cases 2 and 3 on the eastbound Sand Hill Road approach during the AM and PM peak hours. In Case 2 during the AM peak hour the eastbound approach is expected to operate at LOS F with 60 seconds of delay. In Case 3 with the Symphony Glen development, the eastbound approach is expected to operate at LOS F with 74 seconds of delay. A single-lane roundabout would mitigate these deficiencies. With a single-lane roundabout, the intersection is expected to operate at LOS B during both AM and PM peak hours. Other developers of pending developments in the area have been asked to contribute to or construct a roundabout at this intersection. As such, the Symphony Glen developer should make an equitable share contribution to the future roundabout improvement by others at this intersection.

Development Improvements

Should Sussex County approve the proposed development, the following items should be incorporated into the site design and reflected on the record plan, entrance plans or construction plans by note or illustration, 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 (Pettyjohn Road), 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 developer should design and construct the full-movement Site Entrance on Pettyjohn Road. The proposed configuration is shown in the table below.

Approach	Current Configuration		Approach	Proposed Configuration	
Eastbound	Approach does not exist.		Eastbound Site Entrance	One left turn lane and one right turn lane. Stop Control.	
Westbound	Approach does not exist.		Westbound	No Change	
Northbound Pettyjohn Road	One through lane.		Northbound Pettyjohn Road	One left turn lane and one through lane.	
Southbound Pettyjohn Road	One through lane.		Southbound Pettyjohn Road	One through lane and one right turn lane.	

At the proposed Site Entrance intersection, a northbound left-turn lane and a southbound right-turn lane are each warranted on Pettyjohn Road based on DelDOT's Auxiliary Lane Worksheet. Initial recommended minimum turn lane lengths (excluding taper) are: 185-foot northbound left-turn lane and a 190-foot southbound right-turn lane on Pettyjohn Road. The eastbound left-turn lane on the Site Entrance approach to Pettyjohn Road should be 50-feet long (excluding taper). The developer should coordinate with DelDOT's Development Coordination Section to determine final turn lane lengths and other design details during the site plan review.

3. The developer should fund an equitable portion of future improvements that would realign a portion of Prettyman Road north of US Route 9 to address the skewed angle of the intersection of US Route 9 and Prettyman Road. The realignment would eliminate the existing skewed angle such that Prettyman Road intersects at a 90-degree angle. One or more other developers may be required to contribute towards the improvements. The developer should coordinate with DelDOT's Development Coordination Section, along with the developers of Toback Flex Park, Georgetown Business Plaza (f.k.a. Prettyman Property – Prettyman Road), Cool Spring, and Wynford Preserve (f.k.a. Prettyman Property – Prettyman Road) if directed to by DelDOT, regarding the contribution amount and other details regarding the realignment project. The developer's contribution will be $31,528.00.

4. The developer should contribute to the Traffic Signal Revolving Fund (TSRF) for potential future improvements at the intersection of US Route 9 and Harbeson Road. The TSRF contribution amount is $6,379.00. The developer should coordinate with DelDOT's Development Coordination Section to determine the terms of the TSRF contribution.

5. The developer should make an equitable share contribution towards future improvements by others to construct a single-lane roundabout at the intersection of Harbeson Road / Shingle Point Road / Chestnut Road. One or more other developers may also be required to contribute towards the improvements. The developer's contribution amount will be $412,371.00 and the developer should coordinate with DelDOT's Subdivision Section on the equitable cost payment terms.

6. The developer should make an equitable share contribution towards future improvements by others to construct a single-lane roundabout at the intersection of Harbeson Road / Sand Hill Road. One or more other developers may also be required to contribute towards the improvements. The developer's contribution amount will be $204,586.00 and the developer should coordinate with DelDOT's Subdivision Section on the equitable cost payment terms.

7. The following bicycle and pedestrian improvements should be included:

    a. Per the DelDOT Development Coordination Manual section 5.2.9.2, bicycle lanes are required where right-turn lanes are being installed.

    b. Appropriate bicycle symbols, directional arrows, pavement markings, and signing should be included along bicycle facilities and turn lanes within the project limits.

    c. Utility covers should be made flush with the pavement.

    d. A minimum 15-foot-wide permanent easement from the edge of the final determined right-of-way should be dedicated to DelDOT within the site frontage along Pettyjohn Road. Along the frontage, a minimum of a 10-foot wide shared-use path should be constructed. The shared-use path should meet AASHTO and ADA standards and should have a minimum of a five-foot buffer from the roadway. At the property boundaries, the shared-use path should connect to the adjacent property or to the shoulder in accordance with DelDOT's Development Coordination Manual. The developer shall coordinate with DelDOT's Development Coordination Section through the plan review process to determine the details of the shared-use path design and connections/terminations at or before the boundaries of the property.

    e. ADA compliant curb ramps and crosswalks should be provided at all pedestrian crossings, including all site entrances. Type 3 curb ramps are discouraged.

f. Internal sidewalks for pedestrian safety and to promote walking as a viable transportation alternative should be constructed within the development. These sidewalks should each be a minimum of five-feet wide (with a minimum of a five-foot buffer from the roadway) and should meet current AASHTO and ADA standards. Internal sidewalks in the development should connect to the proposed shared-use path along the site frontages.

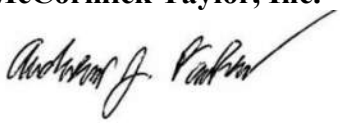
Improvements in this TIS may be considered "significant" under DelDOT's *Work Zone Safety and Mobility Procedures and Guidelines*. These guidelines are available on DelDOT's website at http://deldot.gov/Publications/manuals/de_mutcd/index.shtml.

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

Additional details on our review of this TIS are attached. Please contact me at (610) 640-3500 or through e-mail at ajparker@mccormicktaylor.com if you have any questions concerning this review.

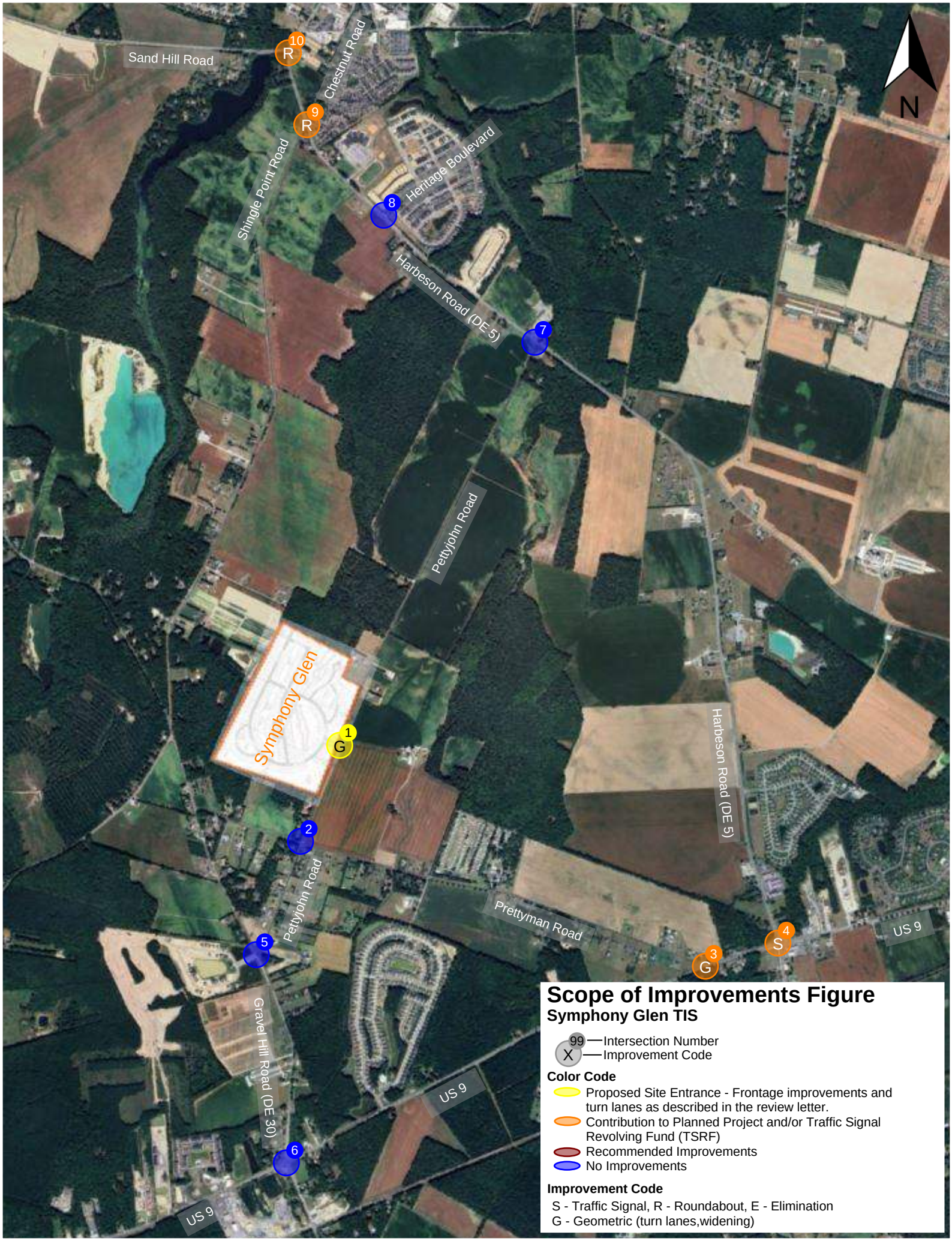
Sincerely,

McCormick Taylor, Inc.



Andrew J. Parker, PE, PTOE
Project Manager

Enclosure


Sand Hill Road
Chestnut Road
Shingle Point Road
Heritage Boulevard
Harbeson Road (DE 5)
Pettyjohn Road
Symphony Glen
Harbeson Road (DE 5)
Pettyjohn Road
Prettyman Road
US 9
Gravel Hill Road (DE 30)
US 9
US 9
N
10
9
8
7
1
2
5
6
3
4
Scope of Improvements Figure
Symphony Glen TIS
99 — Intersection Number
X — Improvement Code
Color Code
Proposed Site Entrance - Frontage improvements and turn lanes as described in the review letter.
Contribution to Planned Project and/or Traffic Signal Revolving Fund (TSRF)
Recommended Improvements
No Improvements
Improvement Code
S - Traffic Signal, R - Roundabout, E - Elimination
G - Geometric (turn lanes,widening)

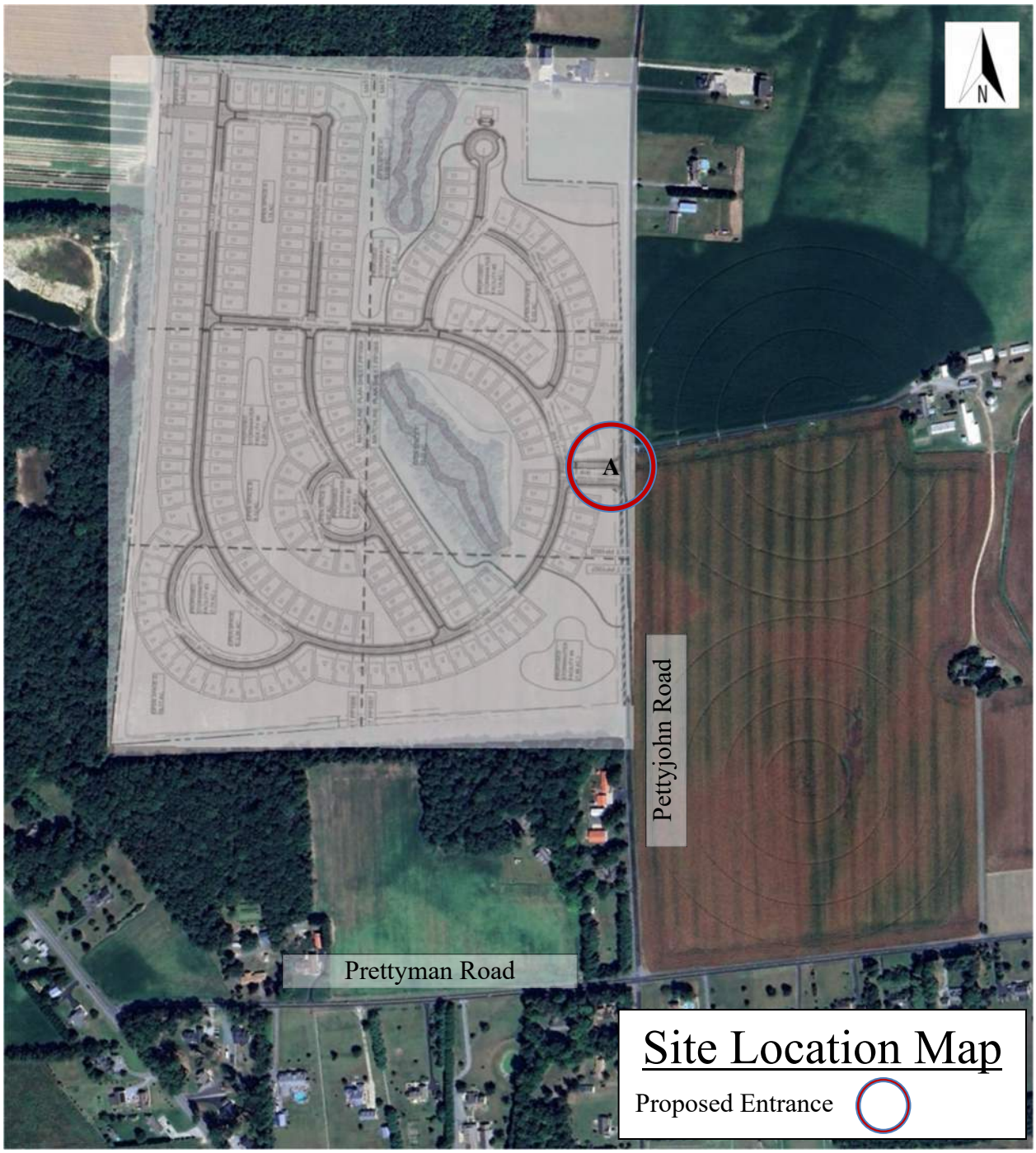
General Information

Report date: March 12, 2025
Prepared by: Pennoni Associates Inc.
Prepared for: Ribera Development, LLC
Tax parcel: 235-25.00-44.00
Generally consistent with DelDOT's Development Coordination Manual: Yes

Project Description and Background

Description: The proposed Symphony Glen development consists of 219 single-family detached houses.
Location: This site is located on the west side of Pettyjohn Road (Sussex Road 255) and approximately 1,000 feet north of the intersection of Pettyjohn Road and Prettyman Road (Sussex Road 254), in Sussex County, Delaware. A site location map is included on page 10.
Amount of land to be developed: an approximately 110-acre parcel.
Land use approval(s) needed: The land is currently zoned as AR-1 (Agricultural Residential) and the developer does not plan to rezone.
Proposed completion year: 2031
Proposed access locations: Access to the site is proposed along Pettyjohn Road via one full-movement entrance.
Average Daily Traffic Volumes (per DelDOT Traffic Summary 2023):

- Pettyjohn Road: 338 vehicles/day


N
A
Pettyjohn Road
Prettyman Road
Site Location Map
Proposed Entrance

2020 Delaware Strategies for State Policies and Spending

Location with respect to the Strategies for State Policies and Spending Map of Delaware: The proposed Symphony Glen development is located within Investment Level 4.

Investment Level 4
Delaware's Investment Level 4 Areas are rural in nature and are where the bulk of the state's open space/natural areas and agricultural industry is located. These areas contain agribusiness activities, farm complexes, and small settlements. They typically include historic crossroads or points of trade, often with rich cultural ties (for example, unincorporated areas like Clarksville in Sussex County and Port Penn in New Castle County).

Investment Level 4 Areas also boast undeveloped natural areas, such as forestlands, and large recreational uses, such as state and county parks and fish and wildlife preserves. Level 4 Areas may include natural habitats that are important for providing "ecosystem services" such as improving water quality and reducing flood risk. Sometimes, private recreational facilities, such as campgrounds or golf courses (often with associated residential developments), are also situated in Investment Level 4 Areas.

It is the State's intent to discourage additional urban and suburban development in Investment Level 4 Areas unrelated to agriculture and to the areas' needs.

Proposed Development's Compatibility with Strategies for State Policies and Spending:
The proposed Symphony Glen development falls within Investment Level 4 and is to be developed as 219 single-family detached houses. In Investment Level 4 areas, the State's investments and policies should retain the rural landscape, preserve open spaces and farmlands, support farmland-related industries, and establish defined edges to more concentrated development. New housing and commercial developments are generally discouraged in such areas. further discussion may be required to determine if the proposed development complies with the Strategies. Based on the 2020 Delaware Strategies for State Polices and Spending document, the proposed development does not appear to be compatible with Investment Level 4. As such, additional discussion is required.

Comprehensive Plan

Sussex County Comprehensive Plan:
(Source: Sussex County Comprehensive Plan, March 2019)

The Sussex County Comprehensive Plan Future Land Use Map indicates that the proposed Symphony Glen development is proposed on land designated as a "Low Density Rural" per the Future Land Use Map. Sussex County envisions this as an area where farming co-exists with appropriate residential uses and permanently preserved property. Within Low Density Rural Areas zones as AR-1 (Agricultural Residential), single family detached homes are permitted at two homes per acre if the tract connects to central sewers. The zoning regulations also permit an average of two homes per acre where cluster-style site plan is used, and a portion of the tract is preserved in permanent open space.

Proposed Development's Compatibility with Comprehensive Plan:
The proposed development project includes 219 single-family detached houses on an approximately 110-acre parcel. The property is in a Low Density Rural Area and is currently zoned AR-1. As such, it would appear that the proposed Symphony Glen development may fit within the intended land use for this location, although as noted above additional discussion is required because this is an Investment Level 4 area.

Relevant Projects in the DelDOT Capital Transportation Program

Currently, DelDOT has no relevant and ongoing projects within the area of study, although there is one study. DelDOT's Coastal Corridors Study aims to study the east-west travel patterns in Sussex County. The study area is comprised of Delaware Route 16 to the north, Delaware Route 404/US Route 9 to the south, the Maryland State line to the west, and Delaware Route 1 to the east. The initial steps in the study will identify the east-west routes and corridors within northwestern Sussex County which are currently congested or are at risk for congestion based on anticipated growth. The study will consider factors such as: longer trips from the Chesapeake Bay Bridge to the Delaware beaches, regional traffic between Maryland's Eastern Shore and Sussex County, and local east-west traffic within the northwestern part of Sussex County. The Coastal Corridors Study report was published in June 2024. The study is currently in the targeted engagement phase. DelDOT has formed the Corridors Committee, comprised of local stakeholders which will work with the Study Team to review data and provide feedback on potential transportation solutions in the study area. Several study recommendations are moving forward, although none are within the Symphony Glen study area. More information about the Coastal Corridors Study can be found at: https://deldot.gov/projects/Studies/404/index.shtml.

Additionally, it is noted that DelDOT's Traffic Section will be converting the intersection of Pettyjohn Road and Prettyman Road from two-way stop-control to all-way stop control. The conversion is anticipated to be implemented in May 2025.

At the intersection of Harbeson Road (Delaware Route 5) / Shingle Point Road / Chestnut Road, DelDOT recently completed a project nomination within the Safety Rollup Program for a future roundabout. This nomination initiates the process to have the planning, design, and construction of a roundabout included in the Capital Transportation Program (CTP). As of May 2025, this project is not included in the CTP. Other developers of pending developments in the area have been asked to contribute to or construct a roundabout at this intersection, independent of the project nomination. Depending on the schedule of these pending developments, a developer contribution towards improvements at this intersection may be facilitated through coordination with the other developers or through a potential CTP project.

Trip Generation

Trip generation for the proposed development was computed using comparable land uses and equations contained in Trip Generation, Eleventh Edition, published by the Institute of Transportation Engineers (ITE). The following land use was utilized to estimate the amount of new traffic generated for this development:

- Single-Family Detached Housing (ITE Land Use Code 210)

Table 1
Peak Hour Trip Generation

ITE Land Use Codes	Units	Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour		
			In	Out	Total	In	Out	Total
210	219	2,075	38	114	152	131	77	208
Total Trips		**2,075**	**38**	**114**	**152**	**131**	**77**	**208**

Overview of TIS

Intersections examined:
1) Site Entrance A / Pettyjohn Road
2) Pettyjohn Road / Prettyman Road
3) US Route 9 / Prettyman Road
4) US Route 9 / Harbeson Road (Delaware Route 5)
5) Pettyjohn Road / Gravel Hill Road (Delaware Route 30)
6) US Route 9 / Gravel Hill Road (Delaware Route 30)
7) Pettyjohn Road / Harbeson Road (Delaware Route 5)
8) Harbeson Road (Delaware Route 5) / Heritage Boulevard
9) Harbeson Road (Delaware Route 5) / Shingle Point Road / Chestnut Road
10) Harbeson Road (Delaware Route 5) / Sand Hill Road

Conditions examined:
1) 2024 existing (Case 1)
2) 2031 without development (Case 2)
3) 2031 with development (Case 3)

Peak hours evaluated: Weekday morning and evening peak hours.

Committed developments considered:
1) **Windscape Farms** (49 single-family detached houses)
2) **Four Winds Farm** (336 single-family detached houses)
3) **Coulter Place** (128 single-family detached houses)

4) **Heritage Creek Phase 1** (58 senior-adult detached houses)
5) **Heritage Creek** (259 single-family detached houses and 109 single-family attached housing)
6) **The Granary at Draper Farm** (401 single-family detached houses and 92 low-rise multi-family dwelling units)
7) **Vines at Sand Hill** (393 single-family detached houses)
8) **Azalea Woods** (610 single-family detached houses)
9) **Weston-Willows** Commercial Outparcels (1,600 square feet of warehousing space and 9,600 square feet of retail space)
10) **Wynford Preserve-Prettyman Road** (100 single-family detached houses)
11) **Two Farms 956 Retail** (10,500 square foot of retail and 1,430 square foot of coffee shop with drive through)

Intersection Descriptions

1) **Site Entrance A / Pettyjohn Road**
   Type of Control: Proposed minor-stop controlled T-intersection.
   Eastbound Approach: (Site Entrance A) proposed one left-turn lane, one right-turn lane.
   Northbound Approach: (Pettyjohn Road) one through lane, one proposed left-turn lane.
   Southbound Approach: (Pettyjohn Road) one through lane, one proposed right-turn lane.

2) **Pettyjohn Road / Prettyman Road**
   Type of Control: Two-Way Stop-Controlled intersection.
   Eastbound Approach: (Prettyman Road) one shared left-turn/through/right-turn lane.
   Westbound Approach: (Prettyman Road) one shared left-turn/through/right-turn lane
   Northbound Approach: (Pettyjohn Road) one shared left-turn/through/right-turn lane
   Southbound Approach: (Pettyjohn Road) one shared left-turn/through/right-turn lane

3) **US Route 9 / Prettyman Road**
   Type of Control: Minor-stop controlled T-intersection.
   Eastbound Approach: (US Route 9) one shared left-turn/through lane.
   Westbound Approach: (US Route 9) one shared through/right-turn lane.
   Southbound Approach: (Prettyman Road) one shared left-turn/right-turn lane

4) **US Route 9 / Harbeson Road (Delaware Route 5)**
   Type of Control: Signalized intersection.
   Eastbound Approach: (US Route 9) one left-turn lane, one shared through/right-turn lane.
   Westbound Approach: (US Route 9) one left-turn lane, one shared through/right-turn lane.
   Northbound Approach: (Harbeson Road) one left-turn lane, one shared through/right-turn lane.
   Southbound Approach: (Harbeson Road) one left-turn lane, one shared through/right-turn lane.

5) **Pettyjohn Road / Gravel Hill Road (Delaware Route 30)**
Type of Control: Two-Way Stop-Controlled intersection.
Eastbound Approach: (Pettyjohn Road) one shared left-turn/through lane, one right-turn lane.
Westbound Approach: (Pettyjohn Road) one shared left-turn/through/right-turn lane
Northbound Approach: (Gravel Hill Road) one left-turn lane, one shared through/right-turn lane.
Southbound Approach: (Gravel Hill Road) one left-turn lane, one through lane, and one right-turn lane.

6) **US Route 9 / Gravel Hill Road (Delaware Route 30)**
Type of Control: Signalized intersection.
Eastbound Approach: (US Route 9) one left-turn lane, one through lane, and one channelized right-turn lane.
Westbound Approach: (US Route 9) one left-turn lane, one through lane, and one channelized right-turn lane.
Northbound Approach: (Gravel Hill Road) one left-turn lane, one through lane, and one channelized right-turn lane.
Southbound Approach: (Gravel Hill Road) one left-turn lane, one through lane, and one channelized right-turn lane.

7) **Pettyjohn Road / Harbeson Road (Delaware Route 5)**
Type of Control: Minor-stop controlled T-intersection.
Eastbound Approach: (Harbeson Road) one through lane, one right-turn lane.
Westbound Approach: (Harbeson Road) one shared through/left-turn lane.
Northbound Approach: (Pettyjohn Road) one shared right-turn/left-turn lane.

8) **Harbeson Road (Delaware Route 5) / Heritage Boulevard**
Type of Control: Minor-stop controlled T-intersection.
Westbound Approach: (Heritage Boulevard) one left-turn lane, one right-turn lane.
Northbound Approach: (Harbeson Road) one through lane, one right-turn lane.
Southbound Approach: (Harbeson Road) one left-turn lane, one through lane.

9) **Harbeson Road (Delaware Route 5) / Shingle Point Road / Chestnut Road**
Type of Control: All-Way Stop-Controlled intersection.
Eastbound Approach: (Shingle Point Road) one shared left-turn/through/right-turn lane.
Westbound Approach: (Chestnut Road) one shared left-turn/through/right-turn lane.
Northbound Approach: (Harbeson Road) one shared left-turn/through lane, one right-turn lane.
Southbound Approach: (Harbeson Road) one shared left-turn/through lane, one right-turn lane.

10) **Harbeson Road (Delaware Route 5) / Sand Hill Road**
Type of Control: Minor-stop controlled T-intersection.
Eastbound Approach: (Sand Hill Road) one left-turn lane, one right-turn lane.
Northbound Approach: (Harbeson Road) one left-turn lane, one through lane.
Southbound Approach: (Harbeson Road) one through lane, one right-turn lane.

Safety Evaluation

Crash Data: Delaware Crash Analysis Reporting System (CARS) data was provided in the TIS for the three-year period from December 5, 2021, through December 5, 2024. The crash data indicates that 4 midblock crashes occurred within the study area over that timeframe, with all of those crashes occurring along the Developer's site frontage: Pettyjohn Road.

Of the 4 crashes, 2 of them involved hitting an animal, and 2 of them involved hitting a fixed object. The two fixed object crashes were due to driver inattention, and avoidance of a collision with an opposite direction driver that was running off the road towards them. There were no fatalities during the three-year period.

Sight Distance: The study area generally consists of relatively flat roadways and there are few visual obstructions. As always, the adequacy of available sight distance should be confirmed during the site plan review process for all proposed movements at the site accesses.

Transit, Pedestrian, and Bicycle Facilities

Existing transit service: Based on the current DART Bus Stop Map, the Delaware Transit Corporation (DTC) currently operates two fixed-route transit bus routes (Routes 303 and 206) that travel along US Route 9 and Harbeson Road (Delaware Route 5), however, there are no bus stops within one mile of the proposed development.

Planned transit service: Based on coordination with Delaware Transit Corporation (DTC) representatives, there are no additional transit amenities proposed or required at this time.

Existing bicycle and pedestrian facilities: According to DelDOT's Sussex County Bicycle Map, Harbeson Road (Delaware Route 5) and Gravel Hill Road (Delaware Route 30) are designated as Regional Bicycle Routes with a Bikeway. Prettyman Road is a suggested Connector Bicycle Route without Bikeway. There are no existing pedestrian facilities in the area surrounding the proposed development.

Planned bicycle and pedestrian facilities: The developer is expected to construct a 10-foot-wide shared use path along their frontage.

Previous Comments

The initial scoping memorandum between the developer and DelDOT was dated November 27, 2024. The scoping memorandum was revised on April 24, 2024.

In a review letter dated January 7, 2025, DelDOT commented on the traffic counts and seasonally adjusted traffic volumes. The developer was asked to revise several volume figures, address all comments, apply the growth factors provided, and proceed with the Preliminary TIS.

In a second review letter dated February 4, 2025, DelDOT commented on the Preliminary TIS. The developer was asked to update and revise multiple Committed Development Trip Generation tables and trip assignments, provide additional correspondence with the Town of Milton regarding the Heritage Creek committed development, update the Traffic Volume Development Worksheets, include a Total Committed Developments Trip Assignment volume figure, and update the Traffic Volume Without Development and the Traffic Volumes with Development figures.

It appears that all substantive comments from DelDOT's TIS Scoping Memorandum, Traffic Count Review, Preliminary TIS Review, and other correspondence were addressed in the Final TIS submission.

General HCM (Synchro) Analysis Comments
(see table footnotes on the following pages for specific comments)

1) Both the TIS and McCormick Taylor utilized Synchro to complete the traffic analyses.

2) The TIS and McCormick Taylor generally used heavy vehicle percentages (HV%) from turning movement counts for existing and future conditions (as per DelDOT's Development Coordination Manual section 2.2.8.11.6.H). McCormick Taylor and the TIS assumed 3% HV for future movements and at the proposed site entrance.

3) The TIS and McCormick Taylor determined overall intersection peak hour factors (PHF) for each intersection based on the turning movement counts. Future PHFs were determined as per the DelDOT Development Coordination Manual section 2.2.8.11.6.F where applicable.

4) For analyses of all intersections, McCormick Taylor and the TIS assumed 0% grade for all movements.

Table 2
Peak Hour Levels of Service (LOS)
Based on the Symphony Glen Traffic Impact Study
Prepared by Pennoni Associates, Inc – March 2025

Unsignalized Intersection [1] **One-Way Stop (T-Intersection)**	**LOS per TIS**		**LOS per McCormick Taylor**	
1. Site Entrance A / Pettyjohn Road	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2024 Existing (Case 1)				
Eastbound Site Entrance A	-	-	-	-
Northbound Pettyjohn Road - Left	-	-	-	-
2031 No Build (Case 2)				
Eastbound Site Entrance A	-	-	-	-
Northbound Pettyjohn Road - Left	-	-	-	-
2031 Build (Case 3)				
Eastbound Site Entrance A	A (9.2)	A (9.6)	A (9.6)	B (10.1)
Northbound Pettyjohn Road - Left	A (7.4)	A (7.6)	A (7.4)	A (7.7)

[1] For both unsignalized and signalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, LOS analysis results are given for only the overall intersection delay.

Table 3
Peak Hour Levels of Service (LOS)
Based on the Symphony Glen Traffic Impact Study
Prepared by Pennoni Associates, Inc – March 2025

Unsignalized Intersection [2] **Two-Way Stop-Controlled Intersection**	**LOS per TIS**		**LOS per McCormick Taylor**	
2. Pettyjohn Road / Prettyman Road	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2024 Existing (Case 1)				
Eastbound Prettyman Road - Left	A (7.4)	A (7.5)	A (7.4)	A (7.5)
Westbound Prettyman Road - Left	A (7.5)	A (7.4)	A (7.5)	A (7.4)
Northbound Pettyjohn Road	B (10.5)	A (10.0)	B (10.5)	A (10.0)
Southbound Pettyjohn Road	B (10.0)	A (9.7)	B (10.0)	A (9.7)
2031 No Build (Case 2)				
Eastbound Prettyman Road - Left	A (7.5)	A (7.7)	A (7.5)	A (7.7)
Westbound Prettyman Road - Left	A (7.6)	A (7.5)	A (7.6)	A (7.5)
Northbound Pettyjohn Road	B (10.7)	B (10.8)	B (10.7)	B (10.8)
Southbound Pettyjohn Road	B (11.6)	B (12.9)	B (11.6)	B (12.3)
2031 Build (Case 3)				
Eastbound Prettyman Road - Left	A (7.5)	A (7.8)	A (7.5)	A (7.8)
Westbound Prettyman Road - Left	A (7.6)	A (7.5)	A (7.6)	A (7.5)
Northbound Pettyjohn Road	B (11.3)	B (13.5)	B (11.3)	B (13.5)
Southbound Pettyjohn Road	B (13.6)	C (15.4)	B (13.6)	C (15.4)

[2] For both unsignalized and signalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, LOS analysis results are given for only the overall intersection delay.

Table 4
Peak Hour Levels of Service (LOS)
Based on the Symphony Glen Traffic Impact Study
Prepared by Pennoni Associates, Inc – March 2025

Unsignalized Intersection [3] **One-Way Stop (T-intersection)**	**LOS per TIS**		**LOS per McCormick Taylor**	
3. US Route 9 / Prettyman Road	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2024 Existing (Case 1)				
Eastbound US Route 9 - Left	A (0.0)	B (10.1)	A (0.0)	B (10.1)
Southbound Prettyman Road	F (75.7)	F (114.4)	F (75.1)	F (114.4)
2031 No Build (Case 2)				
Eastbound US Route 9 - Left	A (0.0)	B (11.4)	A (0.0)	B (11.4)
Southbound Prettyman Road	F (453.8)	F (683.9)	F (451.1)	F (683.9)
2031 Build (Case 3)				
Eastbound US Route 9 - Left	A (0.0)	B (11.6)	A (0.0)	B (11.6)
Southbound Prettyman Road	F (541.5)	F (799.6)	F (538.5)	F (799.6)
2031 Build (Case 3) - Signalized				
Overall	B (19.7)	B (16.5)	B (20.0)	B (16.3)

[3] For both unsignalized and signalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, LOS analysis results are given for only the overall intersection delay.

Table 5
Peak Hour Levels of Service (LOS)
Based on the Symphony Glen Traffic Impact Study
Prepared by Pennoni Associates, Inc – March 2025

Signalized Intersection [4]	**LOS per TIS**		**LOS per McCormick Taylor**	
4. US Route 9 / Harbeson Road	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2024 Existing (Case 1)				
Overall	E (67.7)	D (52.4)	E (55.9)	D (47.7)
2031 No Build (Case 2)				
Overall	F (115.7)	F (105.4)	F (93.3)	F (92.2)
2031 Build (Case 3)				
Overall	F (121.8)	F (112.2)	F (97.9)	F (97.1)
2031 Build (Case 3) w/ Improvements [5]				
Overall	F (93.7)	F (98.8)	D (46.6)	D (54.2)

[4] For both unsignalized and signalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, LOS analysis results are given for only the overall intersection delay.

Table 6
Peak Hour Levels of Service (LOS)
Based on the Symphony Glen Traffic Impact Study
Prepared by Pennoni Associates, Inc – March 2025

Unsignalized Intersection [5] Two-Way Stop-Control	**LOS per TIS**		**LOS per McCormick Taylor**	
5. Pettyjohn Road / Gravel Hill Road	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2024 Existing (Case 1)				
Eastbound Pettyjohn Road	B (11.5)	B (13.3)	B (11.6)	B (13.4)
Westbound Pettyjohn Road	C (15.0)	B (14.8)	C (15.0)	B (14.5)
Northbound Gravel Hill Road - Left	A (8.5)	A (8.2)	A (8.5)	A (8.2)
Southbound Gravel Hill Road - Left	A (9.1)	A (7.8)	A (9.1)	A (7.8)
2031 No Build (Case 2)				
Eastbound Pettyjohn Road	C (16.8)	C (23.9)	C (17.9)	D (25.6)
Westbound Pettyjohn Road	C (21.2)	D (25.7)	C (21.2)	D (25.7)
Northbound Gravel Hill Road - Left	A (8.8)	A (8.7)	A (8.8)	A (8.7)
Southbound Gravel Hill Road - Left	A (9.3)	A (8.1)	A (9.3)	A (8.1)
2031 Build (Case 3)				
Eastbound Pettyjohn Road	C (16.9)	C (24.5)	C (18.0)	D (26.2)
Westbound Pettyjohn Road	D (25.4)	D (31.4)	D (25.4)	D (31.4)
Northbound Gravel Hill Road - Left	A (8.8)	A (8.7)	A (8.8)	A (8.7)
Southbound Gravel Hill Road - Left	A (9.3)	A (8.3)	A (9.3)	A (8.3)

[5] For both unsignalized and signalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, LOS analysis results are given for only the overall intersection delay.

Table 7
Peak Hour Levels of Service (LOS)
Based on the Symphony Glen Traffic Impact Study
Prepared by Pennoni Associates, Inc – March 2025

Signalized Intersection [6]	**LOS per TIS**		**LOS per McCormick Taylor**	
6. US Route 9 / Gravel Hill Road	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2024 Existing (Case 1)				
Overall	C (27.0)	C (29.3)	C (25.8)	C (27.3)
2031 No Build (Case 2)				
Overall	C (30.9)	D (35.6)	C (28.8)	C (33.7)
2031 Build (Case 3)				
Overall	C (30.8)	D (36.5)	C (29.1)	C (34.4)

[6] For both unsignalized and signalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, LOS analysis results are given for only the overall intersection delay.

Table 8
Peak Hour Levels of Service (LOS)
Based on the Symphony Glen Traffic Impact Study
Prepared by Pennoni Associates, Inc – March 2025

Unsignalized Intersection [7] **One-Way Stop (T-intersection)**	**LOS per TIS**		**LOS per McCormick Taylor**	
7. Pettyjohn Road / Harbeson Road	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2024 Existing (Case 1)				
Westbound Harbeson Road - Left	A (8.1)	A (8.0)	A (8.1)	A (8.0)
Northbound Pettyjohn Road	B (12.1)	B (11.0)	B (12.0)	B (11.0)
2031 No Build (Case 2)				
Westbound Harbeson Road - Left	A (8.3)	A (8.3)	A (8.3)	A (8.3)
Northbound Pettyjohn Road	C (16.1)	B (14.6)	C (15.9)	B (14.6)
2031 Build (Case 3)				
Westbound Harbeson Road - Left	A (8.4)	A (8.4)	A (8.4)	A (8.4)
Northbound Pettyjohn Road	C (18.7)	C (16.5)	C (18.4)	C (16.5)

[7] For both unsignalized and signalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, LOS analysis results are given for only the overall intersection delay.

Table 9
Peak Hour Levels of Service (LOS)
Based on the Symphony Glen Traffic Impact Study
Prepared by Pennoni Associates, Inc – March 2025

Unsignalized Intersection [8] **One-Way Stop (T-Intersection)**	**LOS per TIS**		**LOS per McCormick Taylor**	
8. Harbeson Road / Heritage Boulevard	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2024 Existing (Case 1)				
Westbound Heritage Boulevard	B (12.7)	B (11.3)	B (13.1)	B (11.5)
Southbound Harbeson Road - Left	A (8.2)	A (8.0)	A (8.2)	A (8.0)
2031 No Build (Case 2)				
Westbound Heritage Boulevard	C (15.0)	B (13.5)	C (16.0)	B (13.9)
Southbound Harbeson Road - Left	A (8.5)	A (8.3)	A (8.5)	A (8.3)
2031 Build (Case 3)				
Westbound Heritage Boulevard	C (15.8)	B (14.0)	C (16.9)	B (14.6)
Southbound Harbeson Road - Left	A (8.6)	A (8.4)	A (8.6)	A (8.4)

[8] For both unsignalized and signalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, LOS analysis results are given for only the overall intersection delay.

Table 10
Peak Hour Levels of Service (LOS)
Based on the Symphony Glen Traffic Impact Study
Prepared by Pennoni Associates, Inc – March 2025

Unsignalized Intersection [9] All-Way Stop-Control	**LOS per TIS**		**LOS per McCormick Taylor**	
9. Harbeson Road / Shingle Point Road / Chestnut Road	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2024 Existing (Case 1)				
Eastbound Shingle Point Road	B (10.6)	A (9.8)	B (10.6)	A (9.9)
Westbound Chestnut Road	A (10.0)	A (9.8)	A (10.0)	A (9.8)
Northbound Harbeson Road	C (15.5)	B (13.9)	C (15.5)	B (13.9)
Southbound Harbeson Road	C (17.7)	B (13.1)	C (17.7)	B (13.1)
Overall	C (15.8)	B (13.0)	C (15.8)	B (13.0)
2031 No Build (Case 2)				
Eastbound Shingle Point Road	C (15.3)	B (12.9)	C (15.3)	B (13.0)
Westbound Chestnut Road	B (11.6)	B (11.4)	B (11.6)	B (11.4)
Northbound Harbeson Road	E (35.9)	D (26.7)	E (35.9)	D (26.8)
Southbound Harbeson Road	E (35.4)	C (21.0)	E (35.4)	C (21.0)
Overall	D (31.7)	C (21.7)	D (31.7)	C (21.7)
2031 Build (Case 3)				
Eastbound Shingle Point Road	C (15.7)	B (13.4)	C (15.7)	B (13.5)
Westbound Chestnut Road	B (11.9)	B (11.7)	B (11.9)	B (11.7)
Northbound Harbeson Road	E (48.3)	D (32.2)	E (48.3)	D (32.3)
Southbound Harbeson Road	E (40.8)	D (27.0)	E (40.8)	D (27.1)
Overall	E (39.1)	D (26.7)	E (39.1)	D (26.8)
2031 Build (Case 3) - Roundabout				
Eastbound Shingle Point Road	A (8.6)	A (6.8)	A (8.6)	A (7.0)
Westbound Chestnut Road	A (5.9)	A (6.1)	A (5.9)	A (6.1)
Northbound Harbeson Road	A (9.5)	A (8.6)	A (9.5)	A (8.7)
Southbound Harbeson Road	A (9.8)	A (9.2)	A (9.8)	A (9.2)
Overall	A (9.4)	A (8.6)	A (9.4)	A (8.6)

[9] For both unsignalized and signalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, LOS analysis results are given for only the overall intersection delay.

Table 11
Peak Hour Levels of Service (LOS)
Based on the Symphony Glen Traffic Impact Study
Prepared by Pennoni Associates, Inc – March 2025

Unsignalized Intersection [10] One-Way Stop (T-Intersection)	**LOS per TIS**		**LOS per McCormick Taylor**	
10. Harbeson Road / Sand Hill Road	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2024 Existing (Case 1)				
Eastbound Sand Hill Road	C (15.9)	B (13.5)	C (15.9)	B (13.5)
Northbound Harbeson Road - Left	A (8.1)	A (8.4)	A (8.1)	A (8.4)
2031 No Build (Case 2)				
Eastbound Sand Hill Road	F (60.4)	E (39.1)	F (60.4)	E (38.9)
Northbound Harbeson Road - Left	A (8.4)	A (9.3)	A (8.4)	A (9.3)
2031 Build (Case 3)				
Eastbound Sand Hill Road	F (74.0)	E (47.6)	F (74.0)	E (47.4)
Northbound Harbeson Road - Left	A (8.5)	A (9.5)	A (8.5)	A (9.5)
2031 Build (Case 3) - Signalized				
Overall	B (11.8)	A (9.5)	B (11.3)	A (8.0)
2031 Build (Case 3) - Roundabout				
Eastbound Sand Hill Road	B (12.6)	A (9.4)	B (12.6)	A (9.4)
Northbound Harbeson Road	B (10.7)	A (9.1)	B (10.7)	A (9.1)
Southbound Harbeson Road	A (7.2)	B (14.5)	A (7.2)	B (14.6)
Overall	B (10.4)	B (11.5)	B (10.4)	B (11.5)

[10] For both unsignalized and signalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, LOS analysis results are given for only the overall intersection delay.