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

NICOLE MAJESKI
SECRETARY

May 24, 2024

Ms. Betty Tustin, P.E., PTOE
The Traffic Group, Inc.
104 Kenwood Court
Berlin, Maryland 21811

Dear Ms. Betty Tustin:

The enclosed Traffic Impact Study (TIS) review letter for the proposed **Flyaway Farms** (Tax Parcel: 134-15.00-15.01, 15.02, 17.12, 17.16, 17.17, and 17.18) 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 Group Project Engineer

AF:km
Enclosures
cc with enclosures: Carmen Marinelli, Christopher Companies, LLC
Jason Palkewicz, Solutions IPEM
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

DelDOT Distribution

Brad Eaby, Deputy Attorney General
Shanté Hastings, Deputy Secretary / Director of Transportation Solutions (DOTS)
Mark Luszcz, Deputy Director, DelDOT Traffic, DOTS
Michael Simmons, Assistant Director, Project Development South, DOTS
Peter Haag, Chief Traffic Engineer, DelDOT Traffic, DOTS
Wendy Carpenter, Traffic Calming & Subdivision Relations Manager, DelDOT Traffic, DOTS
Sean Humphrey, Traffic Engineer, DelDOT Traffic, DOTS
Matt Schlitter, South District Public Works Engineer, Maintenance & Operations
Jared Kauffman, Service Development Planner, Delaware Transit Corporation
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Pamela Steinebach, Director, Planning
Todd Sammons, Assistant Director, Development Coordination, Planning
Wendy Polasko, Subdivision Engineer, Development Coordination, Planning
John Pietrobono, Acting Sussex County Review Coordinator, Development Coordination, Planning
Thomas Gagnon, Sussex County Subdivision Reviewer, Development Coordination, Planning
Sireen Muhtaseb, TIS Group Manager, Development Coordination, Planning
Philip Lindsey, TIS Group Project Engineer, Development Coordination, Planning
Anthony Aglio, Planning Supervisor, Statewide & Regional Planning, Planning
Steve Bayer, Regional Transportation Planner, Statewide & Regional Planning

McCORMICK TAYLOR

May 15, 2024

Ms. Annamaria Furmato
Project Engineer
DelDOT Division of Planning
P.O. Box 778
Dover, DE 19903

RE: Agreement No. 1946F
Traffic Impact Study Services
Task No. 5A Subtask 05A – Flyaway Farms

Dear Ms. Furmato:

McCormick Taylor has completed its review of the Traffic Impact Study (TIS) for the Flyaway Farms development prepared by The Traffic Group, Inc. dated February 7, 2024. The Traffic Group prepared the report in a manner generally consistent with DelDOT's Development Coordination Manual.

The TIS evaluates the impacts of the proposed Flyaway Farms development to be located on the south side of Burton Farm Road (Sussex Road 373) between Jones Road (Sussex Road 369) and Blackwater Road (Sussex Road 374), west of the Town of Millville. The proposed development would consist of 159 single-family detached houses and 161 townhomes. Site access is proposed via a full-movement driveway on Burton Farm Road. Construction is anticipated to be complete in 2032.

The subject land is located on an approximately 92.9-acre parcel. The land is currently zoned as AR-1 (Agricultural Residential) and the developer plans to rezone the land to MR/RPC (Medium Residential/Residential Planned Community).

Currently, there are no active DelDOT projects within the study area. It should be noted that the intersection of Roxana Road (Delaware Route 17) & Powell Farm Road / Peppers Corner Road was converted to All-Way Stop Control (AWSC) in 2023 and the intersection of Burbage Rd & Powell Farm Road is scheduled for conversion to AWSC in 2024.

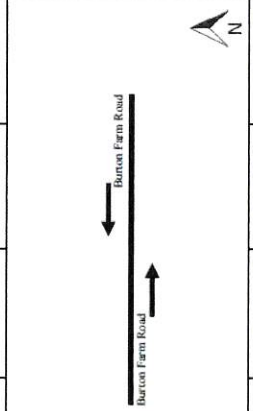
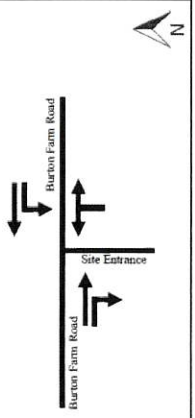
Based on our review, we have the following comments and recommendations:

None of the study intersections exhibited level of service (LOS) deficiencies. However, the developer is asked to contribute to the construction of a roundabout at the intersection of Roxana Road (Delaware Route 17) & Powell Farm Road / Peppers Corner Road. This is because the proposed Flyaway Farms development is adding site trips to the study intersection and a nearby development (Hudson's Reserve) has been asked to construct a future roundabout. Details of this contribution are discussed later in this letter.

Should Sussex County choose to approve the proposed development, the following items should be incorporated into the site design and reflected on the record plan 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 and Design Deviations approved 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 (Burton Farm 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 construct the full-movement Site Entrance on Burton Farm Road. The proposed configuration is shown in the table below.

Approach	Current Configuration		Approach	Proposed Configuration	
Eastbound Burton Farm Road	One through lane.		Eastbound Burton Farm Road	One through lane and one right-turn lane	
Westbound Burton Farm Road	One through lane.		Westbound Burton Farm Road	One left-turn lane and one through lane	
Northbound	Approach does not exist.		Northbound Site Entrance	One shared left / right turn lane. Stop Control.	
Southbound	Approach does not exist.		Southbound	Approach does not exist.	

At the proposed Site Entrance intersection, separate left-turn and right-turn lanes are warranted on the Burton Farm Road approaches based on DelDOT's Auxiliary Lane Worksheet. Initial recommended minimum turn lane lengths (excluding tapers) include a 185-foot left-turn lane on westbound Burton Farm Road and a 290-foot right-turn lane on eastbound Burton Farm Road. 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 make an equitable share contribution towards the construction of a roundabout at the intersection of Roxana Road (Delaware Route 17) & Powell Farm Road / Peppers Corner Road which is being constructed by another developer. One or more other developers may be required to contribute towards the improvement. The developer should coordinate with DelDOT's Development Coordination Section regarding the contribution amount and other details regarding this project. The Flyaway Farms contribution is $171,549.47.

4. 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 right-of-way should be dedicated to DelDOT within the site frontages along Burton Farm Road. Within the easement, 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 Shared-Use Path and/or Sidewalk Termination Reference Guide dated August 1, 2018. 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 both 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


N
Burbage Road
Blackwater Road
Burton Farm Road
Jones Road
Flyaway Farms
Powell Farm Road
Roxana Road (DE 16)
R
Peppers Corner Road
Daisey Road
Scope of Improvements Figure
Flyaway Farms TIS
Proposed Site Entrance - Frontage improvements and turn lanes as described in the review letter.
R
Study Intersection - Recommended Contribution to Roundabout
Study Intersection - No Improvements

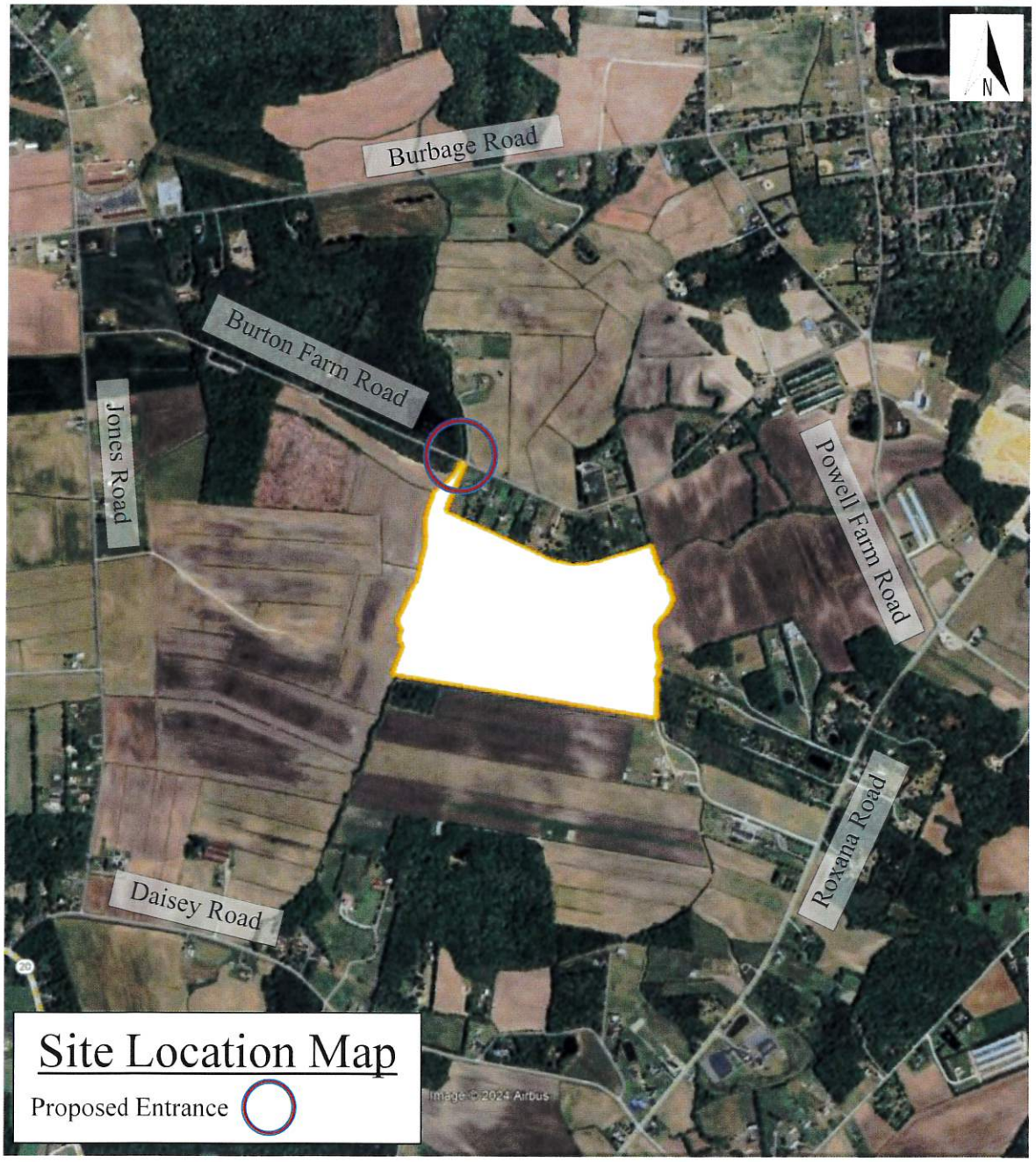
General Information

Report date: February 7, 2024
Prepared by: The Traffic Group, Inc.
Prepared for: Christopher Companies
Tax parcels: 134-15.00-15.01, 15.02, 17.12, 17.16, 17.17, and 17.18.
Generally consistent with DelDOT's Development Coordination Manual: Yes

Project Description and Background

Description: Christopher Companies, LLC seeks to develop a residential community consisting of 159 single-family detached houses and 161 townhomes.
Location: The land is located on the south side of Burton Farm Road (Sussex Road 373) between Jones Road (Sussex Road 369) and Blackwater Road (Sussex Road 374), west of the Town of Millville. A site location map is included on page 7.
Amount of land to be developed: an approximately 92.9-acre assemblage of parcels.
Land use approval(s) needed: The land is currently zoned as AR-1 (Agricultural Residential) and the developer plans to rezone the land to MR/RPC (Medium Residential/Residential Planned Community)
Proposed completion year: 2032
Proposed access locations: Site access is proposed via a full-movement driveway on Burton Farm Road.
Average Daily Traffic Volumes (per DelDOT Traffic Summary 2022):

- Burton Farm Road: 329 vehicles/day


Burbage Road
Burton Farm Road
Jones Road
Powell Farm Road
Roxana Road
Daisey Road
Site Location Map
Proposed Entrance
Image © 2024 Airbus

2020 Delaware Strategies for State Policies and Spending

Location with respect to the Strategies for State Policies and Spending Map of Delaware: The proposed Flyaway Farms residential development is located within Investment Levels 2 and 3.

Investment Level 2
This investment level has many diverse characteristics. 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. These areas have been shown to be the most active portion of Delaware's developed landscape. They serve as transition areas between Level 1 and the more open, less populated areas. They generally contain a limited variety of housing types, predominantly detached single-family dwellings.

In Investment Level 2, 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 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, and provides essential open spaces and recreational facilities, other public facilities, and services to promote a sense of community. Investment Level 2 areas are prime locations for designating "pre-permitted areas."

Investment Level 3
Investment Level 3 Areas generally fall into two categories. The first category covers lands that are in the long-term growth plans of counties or municipalities where development is not necessary to accommodate expected population growth during this five-year planning period (or longer). In these instances, development in Investment Level 3 may be least appropriate for new growth and development in the near term.

The second category includes lands that are adjacent to or intermingled with fast-growing areas within counties or municipalities that are otherwise categorized as Investment Levels 1 or 2. Environmentally sensitive features, agricultural preservation issues, or other infrastructure issues most often impact these lands. In these instances, development and growth may be appropriate in the near term, but the resources on the site and in the surrounding area should be carefully considered and accommodated by state agencies and local governments with land-use authority.

Due to the limits of finite financial resources, state infrastructure spending on "hard" or "grey" infrastructure such as roads, sewer, water, and public facilities will generally be directed to Investment Level 1 and 2 Areas during this planning period. The State will consider investing in these types of infrastructure in Investment Level 3 Areas once the Investment Level 1 and 2 Areas

are substantially built out, or when the infrastructure or facilities are logical extensions of existing systems and deemed appropriate to serve a particular area.

Proposed Development's Compatibility with Strategies for State Policies and Spending:
The proposed Flyaway Farms development falls within Investment Levels 2 and 3, and is to be developed as a Medium Density Residential or Residential Planned Community consisting of 159 single-family detached houses and 161 townhomes. The proposed development is generally consistent with the character of Investment Level 2 and to a lesser extent Investment Level 3. It is therefore concluded that the proposed development appears to generally comply with the policies stated in the 2020 "Strategies for State Policies and Spending." However, given the presence of Investment Level 3, further discussion may be required to confirm that the proposed development completely complies with the Strategies.

Comprehensive Plan

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

The Sussex County Comprehensive Plan 2045 Future Land Use Map indicates that the proposed development parcels are located within a Growth Area categorized as Coastal Area. Within the Coastal Areas, the County permits A range of housing types, including single-family homes, townhouses, and multi-family units. The land is currently zoned as AR-1 (Agricultural Residential), but the developer plans to rezone the land to MR/RPC (Medium Residential/Residential Planned Community)

Proposed Development's Compatibility with Comprehensive Plan:
The proposed residential development is not in-line with the current zoning, but is compatible with the Future Land Use Map. It appears that the proposed Flyaway Farms development fits within the intended land use for this location.

Relevant Projects in the DelDOT Capital Transportation Program

Currently, there are no active DelDOT projects within the study area. It should be noted that the intersection of Roxana Road (Delaware Route 17) & Powell Farm Road / Peppers Corner Road was converted to All-Way Stop Control (AWSC) in 2023 and the intersection of Burbage Rd & Powell Farm Road is scheduled for conversion to AWSC in 2024.

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 (Land Use Code 210)
- Single-Family Attached Housing (Land Use Code 215)

Flyaway Farm Development Peak Hour Trip Generation

Land Use	Size	Daily	Weekday AM Peak Hour			Weekday PM Peak Hour		
			In	Out	Total	In	Out	Total
LUC 210	159 units	1,546	30	84	114	97	57	154
LUC 215	161 units	1,176	24	54	78	53	40	93
Total Trips	**700 units**	**2,722**	**54**	**138**	**192**	**150**	**97**	**247**

Overview of TIS

Intersections examined:

1) Site Entrance & Burton Farm Road (Sussex Road 373)
2) Jones Road (Sussex Road 369) & Burton Farm Road
3) Jones Road & Hickman Road (Sussex Road 372)
4) Jones Road & Daisey Road (Sussex Road 370)
5) Burton Farm Road & Blackwater Road (Sussex Road 374) / Powell Farm Road (Sussex Road 365)
6) Roxana Road (Sussex Road 52/DE 17) & Powell Farm Road / Peppers Corner Road
7) Peppers Corner Road & Beaver Dam Road (Sussex Road 368)
8) Powell Farm Road (Sussex Road 365) & Burbage Road (Sussex Road 353)
9) Roxana Road & Burbage Road

Conditions examined:

1) 2023 Existing (Case 1)
2) 2032 without development (Case 2)
3) 2032 with development (Case 3)

Peak hours evaluated: Weekday morning and weekday evening peak hours.

Committed developments considered:

1) Hudson's Reserve: 14,500 square-foot shopping center, 64 single-family detached houses, and 60 single-family attached units.

2) Milos Haven (aka Lakelynns): 41 single-family detached houses and 138 units of low-rise multi-family housing.
3) Tupelo Sands (aka Beebe Roxana): 216 units of mid-rise multi-family housing and 175 units of continuing care center.
4) Christopher & Companies (aka Toomey Property): 54 single-family detached houses.
5) Millville by the Sea, Village 4: 63 single-family detached houses and 81single-family attached houses.
6) Millville by the Sea, Villages A-1 and C-1: 59 single-family detached houses and 98 single-family attached houses.
7) Egret Shores: 135 single-family detached houses.

Intersection Descriptions

1) **Site Entrance & Burton Farm Road (Sussex Road 373)**
Type of Control: proposed one-way stop (T-intersection)
Eastbound Approach: (Burton Farm Rd) one through-turn lane and one proposed right-turn lane.
Westbound Approach: (Burton Farm Rd) one proposed left-turn lane and one through lane.
Northbound Approach: (Site Entrance) proposed shared left-turn/right-turn lane. Stop controlled.

2) **Jones Road (Sussex Road 369) & Burton Farm Road**
Type of Control: one-way stop (T-intersection)
Westbound Approach: (Burton Farm Rd) one shared left-turn/right-turn lane. Stop controlled.
Northbound Approach: (Jones Rd) one shared through/right-turn lane.
Southbound Approach: (Jones Rd) one shared left-turn/through lane.

3) **Jones Road & Hickman Road (Sussex Road 372)**
Type of Control: one-way stop (T-intersection)
Eastbound Approach: (Hickman Rd) one shared left-turn/right-turn lane. Stop controlled.
Northbound Approach: (Jones Rd) one shared left-turn/through lane.
Southbound Approach: (Jones Rd) one shared through/right-turn lane.

4) **Jones Road & Daisey Road (Sussex Road 370)**
Type of Control: one-way stop (T-intersection)
Eastbound Approach: (Daisey Rd) one shared left-turn/through lane.
Westbound Approach: (Daisey Rd) one shared through/right-turn lane.
Southbound Approach: (Jones Rd) one shared left-turn/right-turn lane. Stop controlled.

5) **Burton Farm Road & Blackwater Road (Sussex Road 374) / Powell Farm Road (Sussex Road 365)**
Type of Control: one-way stop (T-intersection)
Eastbound Approach: (Burton Farm Rd) shared left-turn/through/right-turn lane. Stop controlled (at Powell Farm Rd).
Southeast-bound Approach: (Blackwater Rd) one left-turn lane and one shared through/right-turn lane. Stop controlled (in advance of Powell Farm Rd).
Northbound Approach: (Powell Farm Rd) one shared left-turn/through lane.
Southbound Approach: (Powell Farm Rd) one shared through/right-turn lane.

6) **Roxana Road (Sussex Road 52/DE 17) & Powell Farm Road / Peppers Corner Road**
Type of Control: all-way stop control
Eastbound Approach: (Powell Farm Rd) one shared left-turn/through/right-turn lane.
Westbound Approach: (Peppers Corner Rd) one shared left-turn/through/right-turn lane.
Northbound Approach: (DE 17) one shared left-turn/through/right-turn lane.
Southbound Approach: (DE 17) one shared left-turn/through/right-turn lane.

7) **Peppers Corner Road & Beaver Dam Road (Sussex Road 368)**
Type of Control: one-way stop (T-intersection)
Eastbound Approach: (Peppers Corner Rd) one shared left-turn/through lane.
Westbound Approach: (Peppers Corner Rd) one shared through/right-turn lane.
Southbound Approach: (Beaver Dam Rd) one shared left-turn/right-turn lane. Stop controlled.

8) **Powell Farm Road (Sussex Road 365) & Burbage Road (Sussex Road 353)**
Type of Control: existing two-way stop control / proposed all-way stop control
Eastbound Approach: (Burbage Rd) one shared left-turn/through/right-turn lane. Stop controlled.
Westbound Approach: (Burbage Rd) one shared left-turn/through/right-turn lane. Stop controlled.
Northbound Approach: (Powell Farm Rd) one shared left-turn/through/right-turn lane. Proposed stop control.
Southbound Approach: (Powell Farm Rd) one shared left-turn/through/right-turn lane. Proposed stop control.

9) **Burbage Road & Roxana Road (Sussex Road 52/DE 17)**
Type of Control: signalized
Eastbound Approach: (Burbage Rd) one left-turn lane and one shared through/right-turn lane.
Westbound Approach: (Burbage Rd) one left-turn lane, one through lane, and one right-turn lane.
Northbound Approach: (DE 17) one left-turn lane, one through lane, and one right-turn lane.
Southbound Approach: (DE 17) one left-turn lane and one shared through/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 November 27, 2020, to November 27, 2023. A total of 47 crashes occurred within the study area during the three-year period. Of those 47 collisions, 8 resulted in personal injury. The most common type of collision was front to rear (49 percent).

Sight Distance: The study area generally consists of relatively flat roadways and there are few visual obstructions. Sight distance appears adequate throughout the study area, except for one intersection. There is limited sight distance at the intersection of Burton Farm Road & Blackwater Road/Powell Farm Road due to vegetation north of the intersection. No problematic sight distance issues are indicated by crash data. 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 DART Bus Stop Map (accessed December 2023), the Delaware Transit Corporation (DTC) does not operate any transit routes through the study area. The nearest bus stop is in Millsboro, Delaware.

Planned transit service: Based on coordination with DTC representatives, there are no additional transit amenities proposed at this time.

Existing bicycle and pedestrian facilities: According to DelDOT's Sussex County Bicycle Map, Daisey Road, Blackwater Road, Peppers Corner Road, and Beaver Dam Road are identified as Suggested Connector Bicycle Routes Without Bikeway. Roxana Road (DE 17) is identified as a Suggested Connector Bicycle Route with Bikeway.

Planned bicycle and pedestrian facilities: A 5-foot-wide bicycle lane along Burton Farm Road at the site accesses and a 10-foot shared-use path is proposed along the Burton Farm Road property frontage.

Previous Comments

The initial scoping memorandum between the developer and DelDOT was dated July 28, 2023.

In a review letter dated October 18, 2023, DelDOT commented on the traffic counts and seasonally adjusted traffic volumes. The developer was asked to make corrections to the committed developments included in the trip generation and update several volume figures.

In a second review letter dated December 15, 2023, DelDOT commented on the Preliminary TIS. The developer was asked to correct a discrepancy between the proposed use as stated in the project description and the number of units included in the trip generation. The developer was also asked to remove pass-by reductions for the Hudson's Reserve committed development and then directed to resubmit the Preliminary TIS.

In a third review letter dated January 11, 2024, DelDOT noted that the Preliminary TIS was acceptable as submitted and directed the developer to proceed with the Final TIS.

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 HCS Analysis Comments

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

1) The TIS and McCormick Taylor used Highway Capacity Software (HCS) version 2023.

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 at proposed site entrances in future conditions.

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 Flyaway Farms
Traffic Impact Study – February 2024
Prepared by The Traffic Group, Inc.

Unsignalized Intersection [1] Two-Way Stop-Controlled	**LOS per TIS**		**LOS per McCormick Taylor**	
1 - Site Entrance & Burton Farm Road (Sussex Road 373)	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2032 Build (Case 3)				
Westbound Burton Farm Rd – Left	A (7.3)	A (7.6)	A (7.3)	A (7.5)
Northbound Site Entrance	A (9.4)	A (9.8)	A (9.4)	A (9.8)

[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 Flyaway Farms
Traffic Impact Study – February 2024
Prepared by The Traffic Group, Inc.

Unsignalized Intersection [2] One-Way Stop (T-intersection)	**LOS per TIS**		**LOS per McCormick Taylor**	
2 - Jones Road (Sussex Road 369) & Burton Farm Road	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2023 Existing Condition (Case 1)				
Westbound Burton Farm Rd	A (8.4)	A (8.6)	A (8.4)	A (8.6)
Southbound Jones Rd – Left	A (7.5)	A (7.2)	A (7.5)	A (7.2)
2032 No Build (Case 2)				
Westbound Burton Farm Rd	A (8.4)	A (8.6)	A (8.4)	A (8.6)
Southbound Jones Rd – Left	A (7.5)	A (7.3)	A (7.5)	A (7.3)
2032 Build (Case 3)				
Westbound Burton Farm Rd	A (9.1)	A (9.2)	A (9.0)	A (9.2)
Southbound Jones Rd – Left	A (7.4)	A (7.4)	A (7.6)	A (7.4)

[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 Flyaway Farms
Traffic Impact Study – February 2024
Prepared by The Traffic Group, Inc.

Unsignalized Intersection [3] One-Way Stop (T-intersection)	**LOS per TIS**		**LOS per McCormick Taylor**	
3 - Jones Road & Hickman Road (Sussex Road 372)	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2023 Existing Condition (Case 1)				
Eastbound Hickman Rd	A (8.6)	A (8.7)	A (8.6)	A (8.7)
Northbound Jones Rd – Left	A (7.2)	A (7.2)	A (7.2)	A (7.2)
2032 No Build (Case 2)				
Eastbound Hickman Rd	A (8.6)	A (8.7)	A (8.6)	A (8.7)
Northbound Jones Rd – Left	A (7.2)	A (7.2)	A (7.2)	A (7.2)
2032 Build (Case 3)				
Eastbound Hickman Rd	A (8.8)	A (9.1)	A (8.8)	A (9.1)
Northbound Jones Rd – Left	A (7.3)	A (7.3)	A (7.3)	A (7.3)

[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 Flyaway Farms
Traffic Impact Study – February 2024
Prepared by The Traffic Group, Inc.

Unsignalized Intersection [4] One-Way Stop (T-intersection)	**LOS per TIS**		**LOS per McCormick Taylor**	
4 - Jones Road & Daisey Road (Sussex Road 370)	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2023 Existing Condition (Case 1)				
Eastbound Daisey Rd– Left	A (7.4)	A (7.6)	A (7.4)	A (7.6)
Southbound Jones Rd	A (9.2)	A (9.3)	A (9.2)	A (9.3)
2032 No Build (Case 2)				
Eastbound Daisey Rd– Left	A (7.4)	A (7.6)	A (7.4)	A (7.6)
Southbound Jones Rd	A (9.3)	A (9.3)	A (9.3)	A (9.3)
2032 Build (Case 3)				
Eastbound Daisey Rd– Left	A (7.5)	A (7.6)	A (7.5)	A (7.7)
Southbound Jones Rd	A (9.3)	A (9.4)	A (9.4)	A (9.4)

[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 Flyaway Farms
Traffic Impact Study – February 2024
Prepared by The Traffic Group, Inc.

Unsignalized Intersection [5] One-Way Stop (T-intersection)	**LOS per TIS**		**LOS per McCormick Taylor**	
5 - Burton Farm Road & Blackwater Road (Sussex Road 374) / Powell Farm Road (Sussex Road 365)	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2023 Existing Condition (Case 1)				
Eastbound Burton Farm Rd	A (8.4)	A (8.8)	A (9.1)	A (8.8)
Eastbound Burton Farm Rd – Left	A (7.3)	A (7.3)	A (7.3)	A (7.3)
Southbound Blackwater Rd – Left	A (8.8)	A (8.9)	A (8.9)	A (8.8)
Northbound Powell Farm Rd – Left	A (7.4)	A (7.5)	A (7.4)	A (7.4)
2032 No Build (Case 2)				
Eastbound Burton Farm Rd	A (8.5)	A (9.0)	A (9.3)	A (9.1)
Eastbound Burton Farm Rd – Left	A (7.3)	A (7.4)	A (7.3)	A (7.3)
Southbound Blackwater Rd – Left	A (9.0)	A (9.0)	A (9.1)	A (9.0)
Northbound Powell Farm Rd – Left	A (7.5)	A (7.6)	A (7.5)	A (7.5)
2032 Build (Case 3)				
Eastbound Burton Farm Rd	A (8.4)	A (8.6)	B (10.9)	B (10.7)
Eastbound Burton Farm Rd – Left	A (7.4)	A (7.6)	A (7.4)	A (7.5)
Southbound Blackwater Rd – Left	A (9.8)	B (10.2)	A (10.0)	A (10.0)
Northbound Powell Farm Rd – Left	A (7.6)	A (7.8)	A (7.6)	A (7.7)

[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 Flyaway Farms
Traffic Impact Study – February 2024
Prepared by The Traffic Group, Inc.

Unsignalized Intersection [6] All-Way Stop-Controlled	**LOS per TIS [7]**		**LOS per McCormick Taylor [8]**	
6 - Roxana Road (Sussex Road 52/DE 17) & Powell Farm Road / Peppers Corner Road	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2023 Existing Condition (Case 1)				
Eastbound Powell Farm Rd	B (12.6)	B (12.8)	A (8.7)	A (8.7)
Westbound Peppers Corner Rd	B (14.0)	C (15.8)	A (8.9)	A (9.4)
Northbound DE 17	A (7.6)	A (7.6)	A (9.8)	A (9.5)
Southbound DE 17	A (7.7)	A (7.6)	A (9.0)	A (9.6)
Overall	--	--	A (9.2)	A (9.4)
2032 No Build (Case 2)				
Eastbound Powell Farm Rd	C (21.9)	E (38.1)	B (11.3)	B (11.3)
Westbound Peppers Corner Rd	D (27.1)	F (53.7)	B (11.5)	B (11.5)
Northbound DE 17	A (7.8)	A (7.9)	B (12.8)	B (11.9)
Southbound DE 17	A (7.8)	A (8.0)	B (12.4)	B (13.6)
Overall	--	--	B (12.1)	B (12.3)
2032 Build (Case 3)				
Eastbound Powell Farm Rd	--	--	B (12.6)	B (13.7)
Westbound Peppers Corner Rd	--	--	B (12.3)	C (15.6)
Northbound DE 17	--	--	B (13.6)	C (16.8)
Southbound DE 17	--	--	B (13.1)	C (16.8)
Overall	--	--	B (12.9)	C (15.9)

[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.

[7,8] Intersection has recently been converted to All-Way Stop Control (AWSC). The Traffic Group TIS results are based on a Two-Way Stop Control (TWSC) while McCormick Taylor's results are based on the AWSC configuration. The TWSC results for northbound and southbound Delaware Route 17 are for the left-turn movements.

Table 7 (continued)
Peak Hour Levels of Service (LOS)
Based on Flyaway Farms
Traffic Impact Study – February 2024
Prepared by The Traffic Group, Inc.

Unsignalized Intersection [9] Roundabout	**LOS per TIS**		**LOS per McCormick Taylor**	
6 - Roxana Road (Sussex Road 52/DE 17) & Powell Farm Road / Peppers Corner Road	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2032 No Build (Case 2)				
Eastbound Powell Farm Rd	A (5.9)	A (6.0)	A (5.9)	A (5.9)
Westbound Peppers CornerRd	A (6.0)	A (6.4)	A (5.9)	A (6.1)
Northbound DE 17	A (5.9)	A (6.1)	A (5.7)	A (6.2)
Southbound DE 17	A (5.5)	A (6.5)	A (5.6)	A (6.5)
Overall	A (5.8)	A (6.3)	A (5.8)	A (6.2)
2032 Build (Case 3)				
Eastbound Powell Farm Rd	A (6.4)	A (6.3)	A (6.5)	A (6.3)
Westbound Peppers CornerRd	A (6.2)	A (7.0)	A (6.1)	A (6.6)
Northbound DE 17	A (6.3)	A (6.4)	A (6.1)	A (6.5)
Southbound DE 17	A (5.6)	A (7.0)	A (5.8)	A (7.0)
Overall	A (6.1)	A (6.7)	A (6.1)	A (6.6)

[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 8
Peak Hour Levels of Service (LOS)
Based on Flyaway Farms
Traffic Impact Study – February 2024
Prepared by The Traffic Group, Inc.

Unsignalized Intersection [10] One-Way Stop (T-intersection)	**LOS per TIS**		**LOS per McCormick Taylor**	
7 - Peppers Corner Road & Beaver Dam Road (Sussex Road 368)	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2023 Existing Condition (Case 1)				
Southbound Peppers Corner Rd	A (9.2)	A (9.3)	A (9.2)	A (9.3)
Eastbound Beaver Dam Rd – Left	A (7.5)	A (7.5)	A (7.5)	A (7.5)
2032 No Build (Case 2)				
Southbound Peppers Corner Rd	A (9.7)	B (10.1)	A (9.7)	B (10.0)
Eastbound Beaver Dam Rd – Left	A (7.6)	A (7.7)	A (7.6)	A (7.7)
2032 Build (Case 3)				
Southbound Peppers Corner Rd	A (9.8)	B (10.4)	A (9.8)	B (10.3)
Eastbound Beaver Dam Rd – Left	A (7.7)	A (7.8)	A (7.7)	A (7.7)

[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.

Table 9
Peak Hour Levels of Service (LOS)
Based on Flyaway Farms
Traffic Impact Study – February 2024
Prepared by The Traffic Group, Inc.

Unsignalized Intersection [11] Two-Way Stop-Controlled	**LOS per TIS**		**LOS per McCormick Taylor**	
8 - Powell Farm Road (Sussex Road 365) & Burbage Road (Sussex Road 353)	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2023 Existing Condition (Case 1)				
Eastbound Burbage Rd	B (10.4)	B (10.1)	B (10.3)	B (10.1)
Westbound Burbage Rd	B (10.4)	B (10.5)	B (10.3)	B (10.5)
Northbound Powell Farm Rd – Left	A (7.3)	A (7.3)	A (7.3)	A (7.3)
Southbound Powell Farm Rd – Left	A (7.4)	A (7.5)	A (7.4)	A (7.5)
2032 No Build (Case 2)				
Eastbound Burbage Rd	B (10.9)	B (11.1)	B (10.9)	B (11.0)
Westbound Burbage Rd	B (11.2)	B (11.4)	B (11.2)	B (11.3)
Northbound Powell Farm Rd – Left	A (7.4)	A (7.4)	A (7.4)	A (7.4)
Southbound Powell Farm Rd – Left	A (7.5)	A (7.5)	A (7.5)	A (7.5)
2032 Build (Case 3)				
Eastbound Burbage Rd	B (11.3)	B (11.4)	B (11.3)	B (11.3)
Westbound Burbage Rd	B (11.7)	B (12.5)	B (11.8)	B (12.5)
Northbound Powell Farm Rd – Left	A (7.4)	A (7.4)	A (7.4)	A (7.4)
Southbound Powell Farm Rd – Left	A (7.6)	A (7.6)	A (7.6)	A (7.6)

[11] 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 (continued)
Peak Hour Levels of Service (LOS)
Based on Flyaway Farms
Traffic Impact Study – February 2024
Prepared by The Traffic Group, Inc.

Unsignalized Intersection [12] All-Way Stop-Controlled	**LOS per TIS**		**LOS per McCormick Taylor**	
8 - Powell Farm Road (Sussex Road 365) & Burbage Road (Sussex Road 353)	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2032 No Build (Case 2)				
Eastbound Burbage Rd	--	--	A (8.0)	A (8.1)
Westbound Burbage Rd	--	--	A (8.6)	A (8.4)
Northbound Powell Farm Rd	--	--	A (7.9)	A (8.0)
Southbound Powell Farm Rd	--	--	A (8.5)	A (8.4)
Overall	--	--	A (8.3)	A (8.2)
2032 Build (Case 3)				
Eastbound Burbage Rd	--	--	A (8.2)	A (8.3)
Westbound Burbage Rd	--	--	A (8.8)	A (9.0)
Northbound Powell Farm Rd	--	--	A (8.0)	A (8.3)
Southbound Powell Farm Rd	--	--	A (8.5)	A (8.7)
Overall	--	--	A (8.4)	A (8.6)

[12] 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 Flyaway Farms
Traffic Impact Study – February 2024
Prepared by The Traffic Group, Inc.

Signalized Intersection [13]	**LOS per TIS**		**LOS per McCormick Taylor**	
9 - Burbage Road & Roxana Road (Sussex Road 52/DE 17)	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2023 Existing Condition (Case 1)				
Overall	B (18.3)	B (17.9)	B (18.6)	B (18.7)
2032 No Build (Case 2)				
Overall	B (19.4)	C (20.2)	B (19.7)	C (20.8)
2032 Build (Case 3)				
Overall	C (20.1)	C (20.9)	C (20.4)	C (21.4)

[13] 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.