STATE OF DELAWARE
OFFICE OF MANAGEMENT AND BUDGET
OFFICE OF STATE PLANNING COORDINATION

September 23, 2024

Siteworks Engineering
Dave Heatwole
PO Box 2
39 Commerce St.
Harrington, DE 19952

RE: PLUS review – 2024-08-09; Sunshine Estates

Dear Mr. Heatwole:

Thank you for meeting with State agency planners on August 28th, 2024 to discuss Sunshine Estates. According to the information received, you are seeking review of a proposed Subdivision of 277 entry level residential lots, 172 being Single Family and 105 Townhouse lots on 55 acres of Traditional Neighborhood Development.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. **The developers will also need to comply with any Federal, State, and local regulations regarding this property. We also note that City of Harrington is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the City.**

Strategies for State Policies and Spending

The proposed subdivision is within the City of Harrington and consistent with the future land use in the certified comprehensive plan. The parcels are located in Level 2 and Level 3 investment areas, which may be consistent with the 2020 Strategies for State Policies and Spending. There is a small portion of Out of Play area that corresponds to the floodplain of the Brown Branch tributary.

Investment Level 2 reflects areas where growth is anticipated by local, county, and State plans in the near-term future. Investment Level 3 reflects areas where growth is anticipated by local, county, and state plans in the longer-term future, or areas that may have environmental or other constraints to development. Based on comments from State agencies below, this parcel contains environmental concerns or other constraints to development, therefore the state

requests that the applicant and the local jurisdiction work with state agencies to design the site with respect to those environmental features which will help create a more sustainable development.

Code Requirements/Agency Permitting Requirements

Department of Transportation – Contact Stephen Bayer 302-760-4834

- Any site access points onto State maintained roads must be designed in accordance with DelDOT's Development Coordination Manual, which is available at http://www.deldot.gov/Business/subdivisions/index.shtml?dc=changes.

- Pursuant to Section 1.3 of the Manual, a Pre-Submittal Meeting is required before plans are submitted for review. The form needed to request the meeting and guidance on what will be covered there and how to prepare for it is located at https://www.deldot.gov/Business/subdivisions/pdfs/Meeting_Request_Form.pdf?08022017.

- Based on the expected trip generation this project will be required to complete a Traffic Impact Study (TIS). Please initiate and continue that process to determine access and any applicable off-site improvements. Within the TIS process please expect to specifically address the proposed alley adjacent to lot 97 as depicted in the PLUS application materials.

- Section 1.7 of the Manual addresses fees that are assessed for the review of development proposals. DelDOT anticipates collecting the Initial Stage Fee when the record plan is submitted for review and the Construction Stage Fee when construction plans are submitted for review.

- As necessary, in accordance with Section 3.2.5 and Figure 3.2.5-a of the Manual, DelDOT will require dedication of right-of-way along the site's frontage. By this regulation, this dedication is to provide a minimum of 30 feet of right-of-way from the physical centerline of Jackson Ditch Road along the site's frontage. The following right-of-way dedication note is required, "**An X-foot wide strip of right-of-way from the centerline is hereby dedicated in fee simple to the State of Delaware, acting by and through the Delaware Department of Transportation."**

- In accordance with Section 3.2.5.1.2 of the Manual, DelDOT will require the establishment of a 15-foot wide permanent easement across the property frontage. The location of the easement shall be outside the limits of the ultimate right-of-way. The easement area can be used as part of the open space calculation for the site. The

following note is required, "**A 15-foot wide permanent easement is hereby dedicated in fee simple to the State of Delaware, acting by and through the Delaware Department of Transportation."**

- Referring to Section 3.4.2.1 of the Manual, the following items, among other things, are required on the Record Plan:
    - A Traffic Generation Diagram. See Figure 3.4.2-a for the required format and content.
    - Notes identifying the type of off-site improvements, agreements (signal, letter) contributions and when the off-site improvements are warranted.
- In accordance with Section 3.8 of the Manual, storm water facilities, excluding filter strips and bioswales, shall be located a minimum of 20 feet from the ultimate State right-of-way along all frontage roads.
- In accordance with Section 5.2.9 of the Manual, the Auxiliary Lane Worksheet should be used to determine whether auxiliary lanes are warranted at the site entrances and how long those lanes should be. The worksheet can be found at http://www.deldot.gov/Business/subdivisions/index.shtml.
- In accordance with Section 5.4 of the Manual, sight distance triangles are required and shall be established in accordance with American Association of State Highway and Transportation Officials (AASHTO) standards. A spreadsheet has been developed to assist with this task. It can be found at http://www.deldot.gov/Business/subdivisions/index.shtml.
- In accordance with Section 5.14 of the Manual, all existing utilities must be shown on the plan and a utility relocation plan will be required for any utilities that need to be relocated.

Department of Natural Resources and Environmental Control – Contact Beth Krumrine 302-735-3480

Staff from the Delaware Department of Natural Resources and Environmental Control (DNREC) reviewed the project submitted for PLUS review. The absence of comments regarding specific resources does not indicate that there are not additional constraints or environmental issues on site, nor does it indicate DNREC support of a project.

Stormwater Management
The project proposes greater than 5,000 square feet of land disturbing activities and will be subject to Delaware's *Sediment and Stormwater Regulations*.

- A Sediment and Stormwater Plan must be developed, then approved by the appropriate plan review agency prior to any land disturbing activity taking place on the site. For this project, the plan review agency is the Kent Conservation District.

- Additionally, to address federal requirements, construction activities that exceed 1.0 acre of land disturbance require Construction General Permit coverage through submittal of an electronic Notice of Intent for Stormwater Discharges Associated with Construction Activity. This form must be submitted electronically https://enoi.dnrec.delaware.gov/, select Construction Stormwater General Permit) to the DNREC Division of Watershed Stewardship, along with the $195 fee.

- Schedule a project application meeting with the appropriate plan review agency prior to moving forward with the stormwater and site design. As part of this process, you must submit a Stormwater Assessment Study.

Plan review agency contact: Kent Conservation District at (302) 608-5370.
Website: http://kentcd.org/
General Stormwater contact: DNREC Sediment and Stormwater Program at (302) 739-9921. E-mail: DNREC.Stormwater@delaware.gov.
Website: https://dnrec.delaware.gov/watershed-stewardship/sediment-stormwater/

Tax Ditches and Tax Ditch Watershed Boundary Change
The Main Prong of the Browns Branch Tax Ditch lies on the southern property boundary of the site. Tax ditches are man-made channels created to move normal water flow off agricultural lands. These channels have associated tax ditch Rights-of-Way (ROW) that are utilized for access as well as sediment and debris disposal during maintenance. Tax ditch ROWs vary by channel size and location. The Main Prong of the Browns Branch Tax Ditch has a 99-foot to Centerline (CL) ROW extending into the project boundary.

- Development of the site will result in a change to the drainage pattern and associated tax ditch watershed boundary. To change existing tax ditch watershed boundaries, a Court Order Change must be submitted by the DNREC Drainage Program. To initiate this process, complete and submit the attached Land Development Project Review Request form. An aerial drainage map has been provided for your reference.

- If the site and/or stormwater management features are designed to discharge into the Main Prong of the Browns Branch Tax Ditch, located along the southern property

boundary, design must consider existing conditions versus design specifications. Please consult with the DNREC Drainage Program for As-Built design information if necessary.

- Contact the DNREC Drainage Program to discuss the on-site tax ditch ROWs prior to the project application meeting with the appropriate plan review agency for construction stormwater management.

- Permanent obstructions including, but not limited to, stormwater management facilities, buildings, sheds, streets, wells, and septic systems are not allowed within the tax ditch ROWs.

- Existing tax ditches on the property must be surveyed and compared to tax ditch design specifications for effective function. The channel should be cleared or excavated prior to the construction of the project if needed.

- All precautions should be taken to ensure the project does not hinder any off-site drainage upstream or create any off-site drainage problems downstream due to increases in stormwater.

Contact: DNREC Drainage Program at (302) 855-1930.
Website: https://dnrec.delaware.gov/drainage-stormwater/
Tax Ditch Mapper: de.gov/taxditchmap
Tax Ditch guidelines: https://documents.dnrec.delaware.gov/swc/Drainage/Documents/Tax-Ditch-Land-Development-Guidelines.pdf

Hydrologic Soils Group
Hydrologic Soil Group D poorly drained soils have been identified in the south and central portion of the site. These soil types could worsen existing drainage issues if present and are typically not conducive to utilizing infiltration stormwater Best Management Practices such as bioretention and infiltration basins. These practices must meet minimum infiltration requirements.

- Any stormwater Best Management Practices that propose the use of infiltration or natural recharge shall include a soils investigation.

Contact: DNREC Sediment and Stormwater Program at (302) 739-9921.
E-mail: DNREC.Stormwater@delaware.gov.
Website: https://dnrec.delaware.gov/watershed-stewardship/sediment-stormwater/

Special Flood Hazard Area
According to the newest Flood Insurance Rate Maps (FIRM), the southern portion of this parcel is situated within a Special Flood Hazard Area, specifically within the mapped 100-year floodplain (1% annual chance of flooding). The Special Flood Hazard Area identified on the site lies within zone AE. In lands contained within the 100-year floodplain, the National Flood Insurance Program's floodplain management regulations must be enforced through the local floodplain ordinance, which can have higher standards. Although houses are proposed outside of the Special Flood Hazard Area (SFHA), some houses may still be required by lenders to purchase flood insurance, based on the proximity to the SFHA.
The southern portion of this site is also situated within the moderate risk floodplain, or 500-year floodplain (0.2% annual chance of flooding), identified as a shaded zone-X.

- The applicant must comply with the local floodplain ordinance and regulations applicable to development or construction within the 100-year floodplain. In determining the boundary of the floodplain, use the most recent FIRM maps available, which can be found at https://floodplanning.dnrec.delaware.gov/

Contact: DNREC Shoreline and Waterway Management Section at (302) 608-5500.
Website: https://dnrec.delaware.gov/watershed-stewardship/waterways/floodplains/

Excellent Groundwater Recharge Area
An Excellent Groundwater Recharge Area is located on the northwest portion of the site. These areas have soils that are conducive to water infiltrating downward from surface water into groundwater. Preservation of these areas is important for replenishing groundwater supplies and ensuring drinking water for future generations.

- The applicant must comply with all county and municipal requirements for construction and uses in Excellent Groundwater Recharge Areas.

Contact: DNREC Source Water Assessment and Protection Program at (302) 739-9945. Website: https://dnrec.delaware.gov/water/commercial-government/public-water/

Wetlands and Waterways
Maps from the Statewide Wetlands Mapping Project indicate the potential presence of non-tidal wetlands in the southern portion of the site, as well as a perennial stream located along the southern property boundary. The application indicates that wetlands have been delineated. According to the application, the U.S. Army Corps of Engineers sign-off is not completed. The application does not propose direct impacts to the wetlands or stream.

- If plans change and wetlands are disturbed, please contact the Wetlands and Waterways Section for more information on permitting requirements.

State Contact: DNREC Wetlands and Waterways Section at (302) 739-9943.
Website: https://dnrec.delaware.gov/water/wetlands/
Federal Contact: U.S. Army Corps of Engineers (Dover Office) at (267) 240-5278.
Website: https://www.nap.usace.army.mil/Missions/Regulatory/Contacts/

Wastewater Disposal Systems – Large Systems
For wastewater conveyance offsite by way of a new sewer connection, flow rates exceeding 2,500 gallons of liquid waste per day will require a Wastewater Pollution Collection and Conveyance (WPCC) permit from the Commercial and Government Services section.

Contact: DNREC Commercial and Government Services Section at (302) 739-9948.
Website: https://dnrec.delaware.gov/water/commercial-government/

Electric Vehicle Charging
Electric vehicle charging infrastructure is now required for all residential dwellings in Delaware (see 80 Del. Laws, c. 145 § 8001- § 8006) for which:

1. A building permit is issued on or after January 1, 2024 (single family), or
2. The final site plan is approved on or after January 1, 2025 (multi-family).

Requirements are summarized below. Consult the Delaware Code directly for further details.

Single-family Dwellings, effective 2024:

- The developer of a single-family residential dwelling shall install at least one electric vehicle capable parking space at each single-family residential dwelling constructed.
- If the single-family residential dwelling does not have an attached or detached garage, an electric vehicle capable parking space must be provided in the driveway, assigned parking space for the dwelling, or at an unassigned non-street residential parking space constructed as part of the project.

Multi-family Dwellings, effective 2025:

- The developer of a multi-family residential dwelling shall install electric vehicle parking spaces, where at least 5% of the total parking spaces for the multi-family residential dwelling must be electric vehicle capable parking spaces.
- In addition, a developer of a multi-family residential dwelling shall provide at least one electric vehicle charging infrastructure parking space in an area available for use by all residents of the multi-family residential dwelling (example: community centers) .

- Construction documents must indicate the location of proposed electric vehicle charging infrastructure parking spaces and electric vehicle capable parking spaces.

- Parking space dimensions must comply with the county or municipal building code applicable to the multi-family residential dwelling.

Delaware Emergency Management Agency – Contact Phillip Cane 302-659-2325

Proposed Project Parcel Flood Concern

- This parcel is primarily located within an area of **Minimal Flood Concern of 1000 years or greater;** however, there is a 100-year flood plain located toward the south of the property, as already described by the submitted sketch. It doesn't appear that any parcels are located within the 100-year floodplain.

Parcel Status within County Evacuation Zone Location

- The parcel is not yet located within a Kent County Evacuation Zone.

Parcel Status within the 10-mile Emergency Planning Zone (EPZ) for the Salem Nuclear Power Plant

- The parcel **is not** located within the 10-mile EPZ for the Salem Nuclear Power Plant.

State Historic Preservation Office – Contact Carlton Hall 302-736-7400

- The parcel has a mixture of poorly and well drained soils and is bordering a water source. There are also two known archaeological sites within half a mile of the parcel. There was a known historic building on the north end of the parcel that was demolished in 2017. There is a high potential especially around the site of the historic building for historic archaeological findings.

- The Office recommends archaeological survey before any ground disturbance. The southern end of the parcel is designated Out of Play, is bordering a waterway and includes wetlands. There is a known precontact archaeological site nearby and a medium to high potential for further archaeological sites on that portion of the parcel. The Office highly recommends reviewing any portion of the plan that includes construction in that area. There is a known cemetery within half a mile of the parcel. If the complete borders of the cemetery have not been surveyed, there is the possibility of discovering unmarked human burials. If any project or development proceeds, the developer should be aware of the Unmarked Human Burials and Human Skeletal

Remains Law (Del. C. Title 7, Ch.54). If there are any questions, inquiries, or concerns, feel free to contact the Delaware State Historic Preservation Office for assistance at 302-736-7400.

Delaware State Fire Marshall's Office – Contact Duane Fox 302-739-4394
This document is for information purposes only and does not constitute any type of approval from the Delaware State Fire Marshal's Office.

At the time of formal submittal, the applicant shall provide; completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation (DSFPR):

Fire Protection Water Requirements:

- Water distribution system capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers. (Assembly and Townhouses)
- Where a water distribution system is proposed for single-family dwellings, it shall be capable of delivering at least 500 gpm for 1-hour duration, at 20-psi residual pressure. Fire hydrants with 800 feet spacing on centers are required. (One & Two- Family Dwelling)
- One- and Two-Family dwellings are required by law to offer the homeowner an automatic sprinkler system, therefore infrastructure should accommodate water needs.
- Where a water distribution system is proposed for the site, the infrastructure for fire protection water shall be provided, including the size of water mains for fire hydrants and sprinkler systems.

Fire Protection Features:

- For townhouse buildings, provide a section / detail and the UL design number of the 2-hour fire rated separation wall on the Site plan.

Accessibility

- All premises, which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road to the subdivision from Jackson Ditch Road must be constructed so fire department apparatus may negotiate it.
- Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.

- Any dead-end road more than 300 feet in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.

- The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.

- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.

Gas Piping and System Information:

- Provide type of fuel proposed and show locations of bulk containers on plan.

Required Notes:

- Provide a note on the final plans submitted for review to read “All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”

- Proposed Use

- Alpha or Numerical Labels for each building/unit for sites with multiple buildings/units

- Square footage of each structure (Total of all Floors)

- National Fire Protection Association (NFPA) Construction Type

- Maximum Height of Buildings (including number of stories)

- Townhouse 2-hr separation wall details shall be shown on site plans

- Note indicating if building is to be sprinklered

- Name of Water Provider

- Letter from Water Provider approving the system layout

- Provide Lock Box Note (as detailed in DSFPR) if Building is to be sprinklered

- Provide Road Names, even for County Roads

Recommendations/Additional Information

This section includes a list of site-specific suggestions that are intended to enhance the project. These suggestions have been generated by the State Agencies based on their expertise and subject area knowledge. **These suggestions do not represent State code requirements.** They are offered here in order to provide proactive ideas to help the applicant enhance the site design, and it is hoped **(but in no way required)** that the applicant will open a dialogue with the relevant agencies to discuss how these suggestions can benefit the project.

Department of Transportation – Contact Stephen Bayer 302-760-4834

- The applicant should expect a requirement that all PLUS and Technical Advisory Committee (TAC) comments be addressed prior to submitting plans for review.

- Please be advised that the Standard General Notes have been updated and posted to the DelDOT website. Please begin using the new versions and look for the revision dates of March 21, 2019 and March 16, 2021. The notes can be found at https://www.deldot.gov/Business/subdivisions/

Department of Natural Resources and Environmental Control – Contact Beth Krumrine 302-735-3480

Removal of Mature Forest/Delaware Ecological Network
The preliminary plan proposes the elimination of approximately 14 of 22 acres of forest on the site. An analysis of historical data indicates that the forest area located on the southern half of the site has likely maintained some degree of forest cover since 1937 and could be considered mature forest. Mature forests possess the potential for rare, threatened, or endangered species that rely on this type of habitat. Forests filter water for improved water quality, provide habitat for wildlife, absorb nutrients, infiltrate stormwater, moderate temperatures, and store atmospheric carbon which would otherwise contribute to climate change.

The forest habitat on this site occurs within the Delaware Ecological Network, a statewide network of interconnected lands having significant ecological value. This GIS data layer helps to identify and prioritize areas for natural resource protection, including forests, wetlands, streams, and high-quality habitat for rare plants and animals.

- Removing forested areas for development, especially mature forests, should be avoided to the greatest extent possible.

- In general, contiguous forest and connected areas of natural habitat are more beneficial to wildlife, allowing for safer movement from one area to another while reducing roadway mortality.

- A forest assessment should be conducted to determine if mature forest resources exist on the property and to delineate their boundaries. Additionally, a forest assessment would include the identification of specimen trees and forest-dependent wildlife. If mature forests are found, these areas should be conserved to the maximum extent practicable.

- To reduce impacts to nesting birds and other wildlife species that utilize forests for breeding, it is recommended that tree clearing not occur from April 1st to July 31st. Likewise, avoid mowing open space areas and grass filter strips during the same timeframe, as various species of birds utilize these areas for nesting sites.

Contact: DNREC Division of Fish and Wildlife, Species Conservation and Research Program at (302) 735-3600.
Website: https://dnrec.delaware.gov/fish-wildlife/contact-information/

Forested Wetlands and Vegetated Buffer Zones
Maps from the Statewide Wetlands Mapping Project indicate the potential presence of forested wetlands on the southern portion of the site. This habitat type is known to support an array of plants and animals, most notably wetland dependent species such as amphibians.
To reduce impacts to these species, the following is recommended:

- As proposed, do not disturb wetland areas. Wetlands are a critical part of our natural environment. They reduce the impacts of flooding, improve water quality, and sequester carbon dioxide from the atmosphere. Wetlands also provide habitat for plants and animals that are uniquely adapted to saturated conditions.

- Maintain an upland buffer of at least 100 feet along all wetlands, sensitive habitats, and waterways across the site, including those containing existing forest or natural vegetative cover.

- Vegetated buffer zones placed adjacent to waterways and wetlands help improve water quality by reducing sediment and pollutants loads. Vegetated buffers are not equivalent to setbacks, as residential lots, walkways, and stormwater management facilities should not be contained within the vegetated buffer zone.

- Vegetated buffer zones should be left undisturbed during construction and should be identified outside of the Limit of Disturbance on the engineering plans. In some instances, stormwater outfalls, conveyances, and emergency spillways may cross through these zones, and will require temporary disturbance during construction.

- Maintain vegetated buffer zones as either meadows or forest. Buffer zones should be planted exclusively with native trees and plants. Native plants are well-suited to our

climate and require limited maintenance. They also provide an increasingly important role in the survival of native birds and beneficial insects whose habitat is shrinking due to development and climate change.

- Vegetated buffer zones should be deeded as community open space and not contained within any lot lines. Signage should be installed at the edge and within the buffer zones to deter residents from encroaching into these common areas.

- Grass cutting for vegetated buffer zones if maintained as meadow should not occur between April 1st to July 31st to reduce impacts to nesting birds and other wildlife species that utilize meadows and grasslands for breeding habitat.

- Design the development to exclude curbs. If road curbing is part of the design, select curbing that allows small animals, such as turtles and salamanders, to climb out of the roadbed (Type 2 or Cape Cod curbing).

- Use wide, open bottom box culverts to allow for passage of amphibians.

- Maintain habitat connections to undeveloped open space, which are especially important for species movement across the landscape.

Contact: DNREC Division of Fish and Wildlife, Species Conservation and Research Program at (302) 735-3600. Website: https://dnrec.delaware.gov/fish-wildlife/conservation/

Stormwater Management

- Where the site and soil conditions allow, integrate runoff reduction techniques including infiltration basins, bioretention (rain gardens), filter strips, and pavers to encourage on-site stormwater infiltration and reduce runoff.

- For improved stormwater management, preserve existing trees, wetlands, and passive open space.

Plan review agency contact: Kent Conservation District at (302) 608-5370.
Website: http://kentcd.org/
General stormwater contact: DNREC Sediment and Stormwater Program at (302) 739-9921. E-mail: DNREC.Stormwater@delaware.gov.
Website: https://dnrec.delaware.gov/watershed-stewardship/sediment-stormwater/

Tax Ditches

- All existing ditches on the property should be evaluated for function and cleaned, if needed, prior to the construction of the project.

- Environmental permits or exemptions may be required by the County Conservation District (Standard Plan), the DNREC Sediment and Stormwater Program (eNOI/NOT), Army Corp of Engineers, and/or DNREC Wetlands and Waterways Section prior to clearing and/or excavating ditch channels.

Contact: DNREC Drainage Program at (302) 855-1930.
Website: https://dnrec.delaware.gov/drainage-stormwater/
Tax Ditch Mapper: de.gov/taxditchmap
Tax Ditch guidelines: https://documents.dnrec.delaware.gov/swc/Drainage/Documents/Tax-Ditch-Land-Development-Guidelines.pdf

Special Flood Hazard Area

- As proposed, locate all structures outside of the floodplain. If this is not possible, the developer should consider designing structures to a higher standard to avoid potential future flood damage and loss.

Contact: DNREC Shoreline and Waterway Management Section at (302) 608-5500.
Website: https://dnrec.delaware.gov/watershed-stewardship/waterways/floodplains/

Excellent Groundwater Recharge Area

- For Excellent Groundwater Recharge Areas, limit impervious surfaces to no more than 20% of the entire area designated as having excellent recharge.

Contact: DNREC Public Water Supply Protection Program at (302) 739-9948.
Website: https://dnrec.delaware.gov/water/commercial-government/public-water/

Sustainable Practices

- Incorporate nonmotorized connectivity and install bicycle racks and covered bike storage where feasible to help facilitate non-vehicular travel modes.

- Offer the option to install solar or geothermal systems for each home. This allows a purchaser to incorporate the cost into their mortgage, making it more affordable. For community facilities such as the proposed clubhouse, consider using renewable energy infrastructure such as solar or geothermal to reduce energy costs and further reduce pollution created from offsite generation. Grant funds and incentives are available for Delmarva Power customers through the DNREC Green Energy Fund, which includes several funding types through the state's major electric utilities (https://dnrec.delaware.gov/climate-coastal-energy/renewable/assistance/).

- Use efficient Energy Star rated products and materials in construction and redevelopment. Energy efficient appliances use less energy over time. This saves consumers and businesses money, while also helping to reduce pollution from power generation.

- Consider planting select areas with native trees. Native trees improve air, water, and soil quality. Planting and nurturing trees is also a nature-based solution to reducing the greenhouse gases that drive climate change. In addition, native trees have an increasingly important role in the survival of native birds and beneficial insects whose habitat is shrinking due to development and climate change.

- Consider planting select areas with meadow comprised of native species. Native plants are well-suited to our climate and require limited maintenance. Mowing in these areas should not occur between April 1st to July 31st to reduce impacts to nesting birds and other wildlife species that utilize meadows and grasslands for breeding habitat.

- Use structural paint coatings that are low in Volatile Organic Compounds to help protect air quality. Air pollution from new construction is generated through the use of maintenance equipment, paints, and consumer products like roof coatings and primers.

- Use recycled materials, such as reclaimed asphalt pavement, to reduce heat island effects on paved surfaces, prevent landfill waste, and lower material costs.

Contact: DNREC Division of Climate, Coastal & Energy at (302) 735-3480.
Website: https://dnrec.delaware.gov/climate-coastal-energy/

Delaware Emergency Management Agency – Contact Phillip Cane 302-659-2325

Population

- The county has a population density of 310.20 per square mile based on the US 2020 Census report; an increase from 2010 at 271.30 persons per square mile. The specific census block(s) the project is located on has a total population of 59, though, with development, this will undoubtedly change. The 9 adjacent blocks aggregated bring the area to a total population of 514.

FEMA National Risk Index

- The FEMA National Risk Index is an online mapping application that identifies communities most at risk to 18 natural hazards: Avalanche, Coastal Flooding, Cold Wave, Drought, Earthquake, Hal, Heat Wave, Hurricane, Ice Storm, Landslide, Lightning, Riverine Flooding, Strong Wind, Tornado, Tsunami, Volcanic Activity, Wildfire, and Winter Weather. The FEMA National Risk Index is calculated by multiplying the Expected Annual Loss times the Social Vulnerability and dividing that by the Community Resilience.



- According to FEMA's National Risk Index, the parcel **is** considered **relatively moderate** for overall natural hazards risks.

- Community Resilience is a consequence reduction risk component and a community risk factor that represents the ability of a community to prepare for anticipated natural hazards, adapt to changing conditions and withstand/recover rapidly from disruptions. Social Vulnerability is a consequence-enhancing risk factor that represents the susceptibility of social groups to the adverse impacts of natural hazards.

- Both its community resilience and its social vulnerability are rated at **relatively high.**

Renewable Energy Commitment

- Regarding energy use and consumption, the census tract utilizes **electricity** as the predominant fuel type for heating purposes.

- DEMA strongly encourages the use of renewable energies and high-efficiency appliances and utilities. Regarding utilities, DEMA suggests incorporating 90% series furnaces/HVAC systems; the closer to 99%, the better, as well as A/C units of 20 Seer or greater. DEMA recommends using tankless water heaters, and battery backup systems for sump pumps to reduce potential water damage from power failure. Lastly, DEMA encourages the integration of modern and emerging technologies, such as the potential for electric vehicles in garages/parking lots, green roofs or solar panels where applicable and allowable, and the like.

<u>Delaware State Housing Authority - Contact Alex Modeas 952-255-9579 ext. 251</u>

- DSHA supports the proposal for the construction of a 277-unit subdivision (172 Single-Family and 105 Townhouses) at 55 acres on 412 Jackson Ditch Rd, Harrison, DE.

- According to DSHA's Housing Reform Map, this project location is situated in a Distressed Area. This means that this area has an overconcentration of rental housing for low-to-moderate-income residents. Given that most of these residential units are targeted for homeownership, DSHA believes that increased homeownership in the area

will create a more balanced approach to creating a supportive, socioeconomically diverse community.

- DNREC voiced concerns over portions of this parcel that are not located in a State Investment Level (Out of Play). DSHA recommends that the applicant works with OPSC and DNREC to mitigate environmental hazards so residents can enjoy a high-quality, safe neighborhood.

Delaware State Fire Marshall's Office – Contact Duane Fox 302-739-4394

Preliminary meetings with Fire Protection Specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from our website: www.statefiremarshal.delaware.gov, technical services link, plan review, applications or brochures.

Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason, therefore.

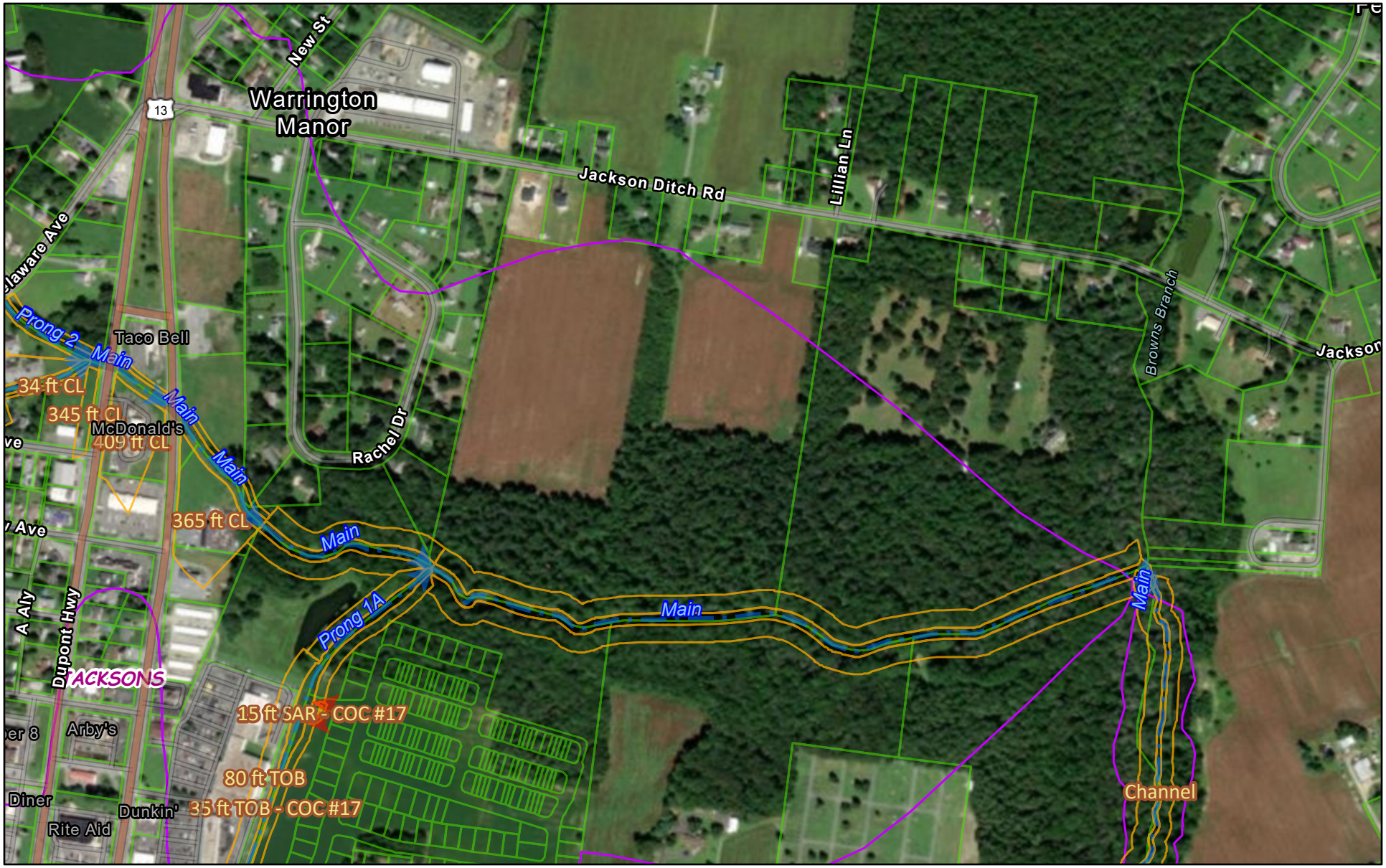
Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,

David L. Edgell, AICP
Director, Office of State Planning Coordination

Attachments:
- DNREC Tax Ditch Map
- DNREC Tax Ditch Land Development

Aerial Map



8/13/2024, 3:02:42 PM

1:9,028

0 0.05 0.1 0.2 mi

0 0.07 0.15 0.3 km

Tax Ditch Channels

Tax Ditch Channel

Special Access ROW

DITCHPIPEDOT

Extent of Right-of-Way

Approx. Watershed Boundary

Parcels - Kent

Esri Community Maps Contributors, Delaware FirstMap, VGIN, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph,

DNREC, Division of Watershed Stewardship, Drainage Program

These maps do not replace the official documents on file in the Prothonotary Office, and not to be used for engineering purposes

Division of Watershed Stewardship
Drainage Program
21309 Berlin Rd., Unit 6
Georgetown, DE 19947

Tax Ditch Land Development Project Review Request Form

Project Name: _____

Attach Site Plan of proposed request(s) and include all structures, easements, setbacks, etc. that make your proposal as requested necessary. Include and label existing tax ditch channel and rights-of-way for comparison.

Check out de.gov/taxditchmap to view tax ditch channels and rights-of-way from any web browser. To download the tax ditch GIS Feature Service layer to your own application, visit Delaware FirstMap. Don't forget to label all tax ditch features in all your plans!

Project Representative/Consultant Information:

Name(s): _____
Company: _____
Title(s): _____
Phone Number(s): _____
Email(s): _____

Owner(s) Contact Information:

Name: _____
Phone Number: _____
Email: _____

Authorized Signer(s) Contact Information (when applicable):

Name: _____
Title: _____
Phone Number: _____
Email: _____

For Internal Use Only
Date Received: _____
Tracking #: _____

Division of Watershed Stewardship
Drainage Program
21309 Berlin Rd., Unit 6
Georgetown, DE 19947

Property Information:

Tax Parcel(s) Affected: _____

Tax Ditch Organization(s) Affected: _____

Request(s) of / Proposed Impact(s) to Tax Ditch System (Check all that apply):

☐	Outfall/Discharge into Tax Ditch Channel(s)
☐	Pipe Crossing/Entrances in Tax Ditch Channel(s)
☐	Relocate/Eliminate Tax Ditch Channel(s)
☐	Reduce/Increase Tax Ditch Rights-of-Way
☐	Change Tax Ditch Watershed Boundary
☐	Alteration of Existing Tax Ditch Channel(s)
☐	Utility Crossing in Tax Ditch Channel
☐	Other Explain:

Based on the options selected above, additional information may be requested.

Please specify Tax Ditch Channel(s) affected, existing and requested tax ditch rights-of-way extents whenever applicable, using the space below. (REQUIRED)

Submit all forms to the DNREC Drainage Program
Via email: DNREC_drainage@delaware.gov
Subject Line: Tax Ditch- Land Development Request

For questions about this form please call the Tax Ditch Program at 302-855-1930.

For Internal Use Only
Date Received: _____
Tracking #: _____