



STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF STATE PLANNING COORDINATION

June 21, 2022

Mr. Colmcille DeAscanis
CDA Engineering, Inc.
6 Larch Avenue, Suite 401
Wilmington, DE 19804

RE: REVISED PLUS review – 2022-05-06; The Flats at Riveredge, Revised 7/5/2022

Dear Mr. DeAscanis:

Thank you for meeting with State agency planners on May 25, 2022 to discuss the proposed plans for The Flats at Riveredge. According to the information received, you are seeking review of rezoning from IOP to IOP, R3, and GC and Site Plan review for a mixed-use 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 as the City of New Castle 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

This project is located in Investment Levels 1 & 2 of the 2020 Strategies for State Policies and Spending. Investment Level 1 reflects areas that are already developed in an urban or suburban fashion, where infrastructure is existing or readily available, and where future redevelopment or infill projects are expected and encouraged by State policy. Investment Level 2 reflects areas where growth is anticipated by local, county, and State plans in the near-term future.

A significant portion of the site is categorized as “Out of Play” by the 2020 Strategies. Out of Play areas are lands that are not available for development or for redevelopment. These include publicly owned lands, private conservation lands, lands for which legal constraints on development are identified, and lands in some form of permanent open-space protection (such as Agriculture Preservation or open-space conservation easements). In this case, the Out of Play designation is primarily due the presence of tidal wetlands. The proposed site plan does not include development in the Out of Play areas.

While development and redevelopment is encouraged in Levels 1&2 the applicant and the City of New Castle should consider environmental factors and surrounding uses in determining what type of use is best suited for the site.

Code Requirements/Agency Permitting Requirements

Office of State Planning Coordination (OSPC) – Contact Tricia Arndt 302-739-3090

Comprehensive Plans have the force of law in Delaware, and all development must occur in conformance with the plan. As detailed in the PLUS application, this project is not consistent with the City of New Castle’s certified 2020 Comprehensive Plan. The City’s land use map designates the subject parcel as “Light Industrial, Office Park”; Therefore, the proposed Residential and Commercial zoning is not permissible unless the Comprehensive Plan land use map is amended. The City of New Castle would have to submit a plan amendment for PLUS review and approval before taking action on the rezoning.

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

- Using the 11th edition of the Institute of Transportation Engineers’ Trip Generation Manual, DelDOT estimates that the subject development consisting of detached single family, attached single family, multifamily (low rise residential with ground floor commercial), and a restaurant would generate over 2,000 vehicle trip ends per day and estimates the weekday morning and evening peak hour trip ends at over 200 for both peak hours. The application’s proposed entrances is not on a state maintained road, and therefore the plan is outside DelDOT’s jurisdiction. If the Town of New Castle requires a TIS, DelDOT is willing to participate in the review of that study.
- Section 1.7 of the Manual addresses fees that are assessed for the review of development proposals. If the Town of New Castle requires a Letter of No Objection to Recordation, DelDOT would require an Initial Stage Fee.

DART First State – Contact Jared Kauffman 302-576-6062

- If the parcel includes the existing stop ID 3692 by Probation and Parole, it needs to be improved to a 17x8 Type 1 or 2 bus stop shelter.
- A pair of companion stops are needed on Lukens Drive:
 - A Type 2 12x8 shelter pad is needed traveling toward Cherry Lane on Lukens Drive.
 - A Type 2 5x8 shelter pad is needed traveling toward Steel Drive.
- A crosswalk is needed on Lukens Drive.

Department of Natural Resources and Environmental Control – Contact Clare Quinlan 302-735-3480

Disclaimer Clause: 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.

Concerns Identified Within the Development Footprint

Wetlands

Maps from the Statewide Wetlands Mapping Project indicate the potential presence of tidal wetlands on the site. The application indicates that wetlands have been delineated. The application does not propose direct impacts to the wetlands.

Requirements:

- If the site design changes and dredge or fill of wetlands or subaqueous lands becomes necessary, permitting and/or authorization requirements apply as described below.
- State permits from the DNREC Wetlands and Subaqueous Lands Section may be necessary if dredge or fill is proposed in tidal wetlands, streams, or State Subaqueous Lands.

Federal Contact: U.S. Army Corps of Engineers (Dover Office) at (267) 240-5278.

Website: <https://www.nap.usace.army.mil/Missions/Regulatory/Contacts/>

State Contact: DNREC Wetlands and Subaqueous Lands Section at (302) 739-9943.

Website: <https://dnrec.alpha.delaware.gov/water/wetlands-subaqueous/>

Vegetated Buffer Zones

Site plans show a 10-foot vegetated buffer along tidal wetlands. Vegetated buffer zones placed adjacent to waterways and wetlands help improve water quality by reducing sediment and pollutants loads. They also provide valuable habitat and can help prevent encroachment of human activities into ecologically sensitive areas. Vegetated buffers are not equivalent to setbacks, as residential lots, walkways, and stormwater management facilities should not be contained within the vegetated buffer zone.

Requirements:

- The applicant must comply with minimum vegetated buffer widths as identified within county and/or municipal codes.

Contact: DNREC Wildlife Species Conservation & Research Program at (302) 735-3600.
Website: <https://dnrec.alpha.delaware.gov/fish-wildlife/contact-information/>

Special Flood Hazard Area

According to the newest Flood Insurance Rate Maps (FIRM), a 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(s) 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. Homeowners with mortgages may be required to purchase flood insurance. A 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.

Requirements:

- 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) 739-9921.
Website: <https://dnrec.alpha.delaware.gov/watershed-stewardship/waterways/floodplains/>

Limit of Moderate Wave Action

A portion of the parcel is located within the Special Flood Hazard Area (100-year floodplain having a 1% annual chance of flooding) and seaward of the Limit of Moderate Wave Action line. This area is subject to enhanced coastal hazards due to storm waves.

Requirements:

- The applicant must comply with the local floodplain ordinance and regulations applicable to development or construction within the floodplain.

Contact: DNREC Shoreline and Waterway Management Section at (302) 739-9921.
Website: <https://dnrec.alpha.delaware.gov/watershed-stewardship/waterways/>

Stormwater Management

This application proposes greater than 5000 square feet of land disturbing activities, therefore, this project will be subject to Delaware's *Sediment and Stormwater Regulations*.

Requirements:

- 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 New Castle 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://apps.dnrec.delaware.gov/enoi/>), 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: New Castle Conservation District at (302) 832-3100, Ext. 3.

Website: <https://www.newcastlecd.org/>

General stormwater contact: DNREC Sediment and Stormwater Program at (302) 739-9921.

E-mail: DNREC.Stormwater@delaware.gov.

Website: <https://dnrec.alpha.delaware.gov/watershed-stewardship/sediment-stormwater/>

Wastewater permits – Large Systems

New Castle County holds existing permits with the DNREC Groundwater Discharges Section's Large Systems Branch for wastewater disposal.

Requirements:

- If additional flows to New Castle County's system will require capacity updates, it is the responsibility of the permittee (New Castle County) to notify the Large Systems Branch.

Contact: DNREC Large Systems Branch at (302) 739-9948.

Website: <https://dnrec.alpha.delaware.gov/water/groundwater/>

Nutrient Management Plan

This project proposes open space of 149 acres.

Requirements:

- A nutrient management plan is required for all persons or entities who apply nutrients to lands or areas of open space of 10 acres or more.

Contact: Delaware Department of Agriculture's Nutrient Management Program at (302) 698-4558.

Website: <https://agriculture.delaware.gov/nutrient-management/>

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

- The majority of this parcel is located within a 100-year Flood Zone categorized as AE though some areas are considered an area of minimal flood concern (1000 years or greater). Typically, any construction of residential facilities must comply with necessary NFIP and/or SFHA regulations and building codes where applicable. Some examples of this may include wet/dry floodproofing, elevating utilities, better drainage and gutter systems, etc. Mortgages are typically required to have an NFIP policy in place.
- The parcel is currently assigned to New Castle County evacuation zone A and directly borders against Zones B and D. DEMA strongly recommends that this be provided or made available to residents and employees, whether through signs, pamphlets or other similar media.

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

- Aboveground and belowground sites are located within the parcel. Potential for prehistoric sites is high based on its location along the coast with proximity to the Delaware River. Locations such as these would have been conducive to human habitation due to the immediate access to aquatic resources. Historic structures have been recorded within the parcel as far back as the mid to late 19th century; this would likewise indicate the potential for historic deposits within the project area. In addition, small, rural, family cemeteries often are found in relation to historic farm complexes, typically located behind or to the side of the said complex. This Office Recommends archaeological survey prior to any ground disturbance.
- 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). Prior to any demolition or ground-disturbing activities, the developer should hire an archaeological consultant to examine the parcel for archaeological resources, including unmarked human burials or human skeletal remains.
- If there is federal involvement, in the form of licenses, permits, or funds, the federal agency, often through its client, is responsible for complying with Section 106 of the National Historic Preservation Act (36 CFR 800) and must consider their project's effects on any known or potential cultural or historic resources. For further information or additional

details pertaining to the Section 106 process and the Advisory Council's role; please review the Advisory Council's website at the following: www.achp.gov

Delaware Department of Education – Contact Laura Horsey 302-857-3364

- The development will be subject to Voluntary School Assessment fees pending the determination of adequate school capacity.

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

This site shall comply with the Delaware State Fire Prevention Regulations (DSFPR). This site is located within the City of New Castle, so please contact their Fire Marshal for additional information and submission requirements.

Fire Protection Water Requirements

- Water distribution system capable of delivering at least 1500 gpm for 2-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers.
- Where a water distribution system is proposed for mixed occupancy use sites, the infrastructure for fire protection water shall be provided, including the size of water mains for fire hydrants and sprinkler systems.

Fire Protection Features

- All structures over 10,000 Sq. Ft. aggregate will require automatic sprinkler protection installed.
- Buildings occupied as apartments (multi-family living units comprising of 3 or more units) will require automatic sprinkler protection installed.
- Buildings greater than 10,000 sq ft, 3-stories or more, over 35 feet, or classified as High Hazard, are required to meet fire lane marking requirements
- Show Fire Department Connection location (Must be within 300 feet of fire hydrant), and detail as shown in the DSFPR.
- Show Fire Lanes and Sign Detail as shown in DSFPR.
- 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 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)
- 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 any buildings are to be sprinklered
- Townhouse 2-hr separation wall details shall be shown on site plans
- 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.

DART First State – Contact Jared Kauffman 302-576-6062

- It is suggested to provide covered bicycle parking near the apartment buildings
- Because of the potential for an enhanced bus turnaround location, it is suggested to coordinate with DART to find a potential solution that allows for an efficient turnaround near the commercial and apartment buildings.

Department of Natural Resources and Environmental Control – Contact Clare Quinlan 302-735-3480

Wetlands

- As proposed for this project, do not disturb wetland areas. Wetlands are a critical part of our natural environment. They reduce the impacts of flooding, absorb pollutants, and improve water quality. Wetlands provide habitat for animals and plants and many contain a wide diversity of life, supporting plants and animals that are found nowhere else.

Federal Contact: U.S. Army Corps of Engineers (Dover Office) at (267) 240-5278.

Website: <https://www.nap.usace.army.mil/Missions/Regulatory/Contacts/>

State Contact: DNREC Wetlands and Subaqueous Lands Section at (302) 739-9943.

Website: <https://dnrec.alpha.delaware.gov/water/wetlands-subaqueous/>

Vegetated Buffer Zones

- Expand the 10-foot buffer to no less than 100 feet from the edge of wetlands to protect water quality and to provide an additional margin of safety for flooding.
- 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.

- 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.
- Maintain vegetated buffer zones as either grasslands/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.
- 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.

Contact: DNREC Wildlife Species Conservation & Research Program at (302) 735-3600.

Website: <https://dnrec.alpha.delaware.gov/fish-wildlife/contact-information/>

Delaware Ecological Network

- Much of the parcel to the north lies within lands designated within the Delaware Ecological Network, a statewide network of interconnected lands of significant ecological value. This GIS data layer is based on principles of landscape ecology and conservation biology, providing a consistent framework to identify and prioritize areas for natural resource protection. Forest disturbances on this site will jeopardize habitat on the parcel and likely beyond the parcel's boundary.
- Removing forested areas within the Delaware Ecological Network should be avoided to the greatest extent possible. These areas provide wildlife habitat, uptake nutrients, infiltrate stormwater, and improve water quality. Forests also provide shading and cooling, while also reducing carbon that contributes to climate change.

Contact: DNREC Wildlife Species Conservation and Research Program at (302) 735-3600.

Website: <https://dnrec.alpha.delaware.gov/fish-wildlife/contact-information/>

Key Wildlife Habitat

- The freshwater tidal marsh on this property is mapped as a Key Wildlife Habitat in the Delaware Wildlife Action Plan because it is part of a large wetland complex that can support an array of plant and animal species across the landscape.

- Key Wildlife Habitat should be conserved to the maximum extent practicable and negative impacts should be minimized.
- Maintain an upland buffer of at least 100 feet, comprised of the existing vegetation or planted with native vegetation.
- Scientists from the DNREC Division of Fish and Wildlife request a site visit to survey the project area and ensure wildlife and critical resources will not be impacted. Contact the Species Conservation and Research Program if the landowner will grant a site visit.

Contact: DNREC Division of Fish and Wildlife, Species Conservation and Research Program at (302) 735-3600.

Website: <https://dnrec.alpha.delaware.gov/fish-wildlife/conservation/>

Sea Level Rise

- The northern and eastern portions of this site are vulnerable to permanent inundation from sea level rise. By 2050, mean sea levels are projected to rise by 0.7 – 1.9 feet; by end of century sea levels are projected to increase by 1.7 – 5.0 feet. In addition to permanent inundation, as mean sea levels rise, the frequency and severity of tidal flooding events is expected to increase.
- In areas within five feet of mean sea level, avoid construction of permanent structures and infrastructure. All infrastructure and structures on the site should incorporate the effects of sea level rise through the expected lifespan of the structures. This may include increasing freeboard of structures, ensuring that critical infrastructure is elevated to withstand future sea level rise, construction of flood control measures, and incorporating green infrastructure for flood control.

Contact: DNREC Climate and Sustainability Section at (302) 735-3480.

Website: <https://dnrec.alpha.delaware.gov/coastal-programs/planning-training/adapting-to-sea-level-rise/>

Special Flood Hazard Area

- 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) 739-9921.

Website: <https://dnrec.alpha.delaware.gov/watershed-stewardship/waterways/floodplains/>

Limit of Moderate Wave Action

- As proposed, place proposed structures outside of the Limit of Moderate Wave Action area and/or build to Zone VE construction standards within this area.

Contact: DNREC Shoreline and Waterway Management Section at (302) 739-9921.

Website: <https://dnrec.alpha.delaware.gov/watershed-stewardship/waterways/>

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: New Castle Conservation District at (302) 832-3100, Ext. 3.

Website: <https://www.newcastlecd.org/>

General stormwater contact: DNREC Sediment and Stormwater Program at (302) 739-9921.

E-mail: DNREC.Stormwater@delaware.gov.

Website: <https://dnrec.alpha.delaware.gov/watershed-stewardship/sediment-stormwater/>

Drainage

- All existing drainage 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 Subaqueous Lands Section prior to clearing and/or excavating ditch channels.
- All precautions should be taken to ensure the project does not hinder any off-site drainage upstream of the project or create any off-site drainage problems downstream by the release of on-site storm water.

Contact: DNREC Drainage Program at (302) 855-1930.

Website: <https://dnrec.alpha.delaware.gov/drainage-stormwater/>

Mosquitoes

- The project is expected to be impacted by mosquitoes due to its location near large expanses of wetlands. Mosquito control issues are increasing as developments infringe on wetland areas, often leading to increased demands for mosquito control services beyond what DNREC has the resources to provide.
- If necessary, arrange for long-term mosquito control services through a private company licensed in this area of specialty. In some cases, the DNREC Mosquito Control Section may be able to provide these services free of charge.

Contact: DNREC Division of Fish and Wildlife, Mosquito Control Section at (302) 739-9917.

Website: <https://dnrec.alpha.delaware.gov/fish-wildlife/mosquito-control/>

Additional Sustainable Practices

- Install electric vehicle charging stations for customers and employees. It is easier to plan for the installation at construction, rather than doing costly retrofits later. The DNREC Division of Climate, Coastal and Energy offers rebates of up to 90% of the cost of the charging station for commercial, multi-unit dwelling and other public properties. These programs address climate change goals of reducing greenhouse gas emissions and improving overall air quality (<https://dnrec.alpha.delaware.gov/climate-coastal-energy/clean-transportation/>). In single family homes, build garages to be “EV-ready”. Installing a 240-volt outlet in one or two locations in a garage will enable a resident to easily (and cheaply) install a level 2 electric vehicle charger. This will increasingly be a selling point for homes.
- Consider using renewable energy infrastructure such as solar or geothermal to reduce energy costs and further reduce pollution created from offsite generation. For single family homes, offer the option to install solar or geothermal systems. This allows a purchaser to incorporate the cost into their mortgage, making it more affordable. 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.alpha.delaware.gov/climate-coastal-energy/renewable/assistance/>).
- Include space for recycling dumpsters within the preliminary site design stage. These can be placed adjacent to trash dumpsters.

- Incorporate nonmotorized connectivity and install bicycle racks where feasible to help facilitate non-vehicular travel modes.
- 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.
- 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.alpha.delaware.gov/climate-coastal-energy/>

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

- DEMA does not encourage any development in areas within or directly adjacent to 100-year flood plains since water knows no bounds nor flood lines. One of DEMA's primary goal as an agency is to reduce the risk to natural hazards, such as flooding, by providing recommendations against new construction in areas deemed particularly hazardous. In this instance, the majority of the property falls within a hazardous area, identified by FEMA as a 100-year floodplain, which causes an increase in risk to same. Through these recommendations, DEMA is attempting to avoid the need for rescue attempts in the event of a flooding event as well as reduce damages to homes, buildings, infrastructure and other community lifelines. However, if construction does occur, we strongly encourage mitigation measures be taken for both residential and commercial facilities, including wet/dry floodproofing, elevating utilities, better drainage and gutter systems, etc. These elements are shown to provide greater resiliency and thus reduce risk to such hazards.
- The First Street Foundation rates the community risk level of 2 for all of New Castle in that region, which suggests a moderate risk from flooding, combining risks associated between residential properties, commercial properties, critical infrastructure facilities, social infrastructure facilities, and roads, and is expected to increase between now and the next 30 years.
- The county has a population density of 1321.50 per square mile based on the US 2020 Census report; an increase from 2010 at 1241 persons per square mile. The specific census block the project is located has a total population of 19 people, though, with

development, this will certainly change. The adjacent blocks in aggregate bring the area to a total population of 709.

- It is not within the 10-mile EPZ zone for the Salem Nuclear Power.
- According to FEMA's National Risk Index, the parcel is considered very low for overall natural hazards risks. Its community resilience is rated as relatively high and social vulnerability is rated as relatively low.
- In terms of energy use and consumption, the parcel utilizes natural gas as the predominant fuel type for heating purposes. However, electricity is still a consideration for consumption therefore the parcel has a photovoltaic power potential of 1456 kWh per kWp. As such, should solar panels be utilized, we recommend an optimum tilt of the photovoltaic modules to be at approximately 34 degrees which could provide a potential of 1761 kWh/m².
- DEMA strongly encourages the use of renewable energies and high-efficiency appliances and utilities. In terms of 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 or their industrial counterparts. DEMA recommends using tankless hot 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 where applicable and allowable, and the like.

Delaware State Housing Authority - Contact Karen Horton 302-739-4263

- DSHA supports the proposal to rezone 169 acres on Lukens Drive in New Castle from IOP to IOP, R3, and GC for a mixed-use development comprised of retail shopping and 451 market-rate rental units. This will include 46 single-family detached units, 272 multi-family units, and 133 duplex and townhome units. While this is a market-rate development, the diverse housing types will offer a more affordable option to many county residents.
- Due to the intensity of the proposal, we recommend a site layout and design measures that are human-scaled and pedestrian-oriented that connects with adjacent neighborhoods via trails and sidewalks. The adjacent charter school is an excellent opportunity to provide a safe and direct connection. Incorporating attractive streetscapes, community recreation areas, visually appealing façade treatments, and significant landscaping measures are also important for creating a desirable quality community where families can thrive.

- Our review of the application notes there was no discussion with the Delaware Transit Corporation (DTC) and it was unknown whether there is an opportunity to connect to a larger bike, pedestrian or transit network. Given the intensity of the proposal and the efficiency of scale to expand mobility to so many residences, we recommend including internal bike paths as well as discussions with DTC, the Town of New Castle and New Castle County to explore opportunities to connect to surrounding trail and transit networks.

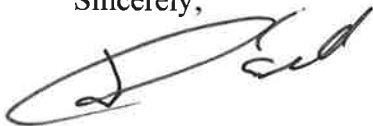
Delaware State Fire Marshall's Office – Contact Duane Fox 302-739-4394

- Although not a requirement of the Delaware State Fire Prevention Regulations, the Office of the State Fire Marshal encourages home builders to consider the benefits of home sprinkler protection in all residential dwellings.
- The Office of the State Fire Marshal reminds home builders that they are obligated to comply with requirements of Subchapter III of Chapter 36 of Title 6 of the Delaware Code which can be found at the following website:
<http://delcode.delaware.gov/title6/c036/sc03/index.shtml>
- Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for an 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