



STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
OFFICE OF STATE PLANNING COORDINATION

March 28, 2018

Ring W. Lardner  
Davis, Bowen & Friedel, Inc.  
1 Park Ave.  
Milford, DE 19963

RE: PLUS review 2018-02-03, King Residential

Dear Ring,

Thank you for meeting with State agency planners on February 28, 2018 to discuss the King Residential project. According to the information received, you are seeking a review of a site plan for a 456 unit multi-family apartment complex along Voshell Mill Road in Camden.

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 Town of Camden is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the Town as well as Kent County.**

**Strategies for State Policies and Spending**

- This project is located in Investment Level 1 according to the *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.
- With that said, the proposed residential apartments are not in compliance with the Camden Comprehensive Plan. The future land use plan identifies this as a commercial area. A plan amendment or update will be required in order for the Town to proceed. The plan amendment or update must be submitted for review through the PLUS process.

- In addition, the proposed design of the apartment complex is not in compliance with the Camden Comprehensive Plan because it conflicts with the proposed alignment of the “Camden By-Pass.” The apartment site plan did not take this future right of way into consideration. Apartment (or other) development on this parcel is possible if it is redesigned to accommodate the necessary right of way. As you will see in DelDOT’s comments below and attached, the agency is currently working through the required NEPA review process to select a final alignment for the Camden By-Pass. Any change to the comprehensive plan that affects the Camden By-Pass represents a plan amendment, and must be reviewed through the PLUS process.
- It is recommended that the Town of Camden consider any changes to this area as a part of the ongoing comprehensive plan update process, rather than through a separate amendment. The review process timing is such that the consideration of a separate amendment would overlap with the review of the update. In addition, it is recommended that the Town of Camden carefully consider any changes to this area in the context of reserving the right of way for the Camden By-Pass.

### **Code Requirements/Agency Permitting Requirements**

#### **Department of Transportation – Contact Bill Brockenbrough 760-2109**

- The site access at the west end of Connection Road must be designed in accordance with must be designed in accordance with DelDOT’s Development Coordination Manual. A copy of the Manual is available at <https://www.deldot.gov/Business/subdivisions/index.shtml?dc=changes>.
- Pursuant to Section P.3 of the Manual, a Pre-Submittal Meeting is required before plans are submitted for review. The form needed to request this 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](https://www.deldot.gov/Business/subdivisions/pdfs/Meeting_Request_Form.pdf?08022017).
- Section P.5 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.
- Section 1.2.1 of the Manual addresses the location of entrances to proposed developments. The plan shows what appears to be a permanent easement, about 40 feet wide and centered on the north property line of the Camden Municipal building, extending west from the property toward South Main Street (Kent Road 4). If the terms of the easement allow the applicant to use it for access, the applicant should expect a requirement to build a driveway through the easement and an access on South Main Street.
- Per Section 2.2.2.1 of the Manual, Traffic Impact Studies (TIS) are warranted for developments generating more than 500 vehicle trip ends per day or 50 vehicle trip ends per hour in any hour of the day. From the PLUS application, the total daily trips are

estimated at 2,771 vehicle trip ends per day. Therefore a TIS is warranted for this development.

DelDOT recommends that the applicant have their traffic engineer request a TIS scoping meeting when they ready to proceed with a TIS. The required Scoping Meeting Information Form is available at <https://www.deldot.gov/Business/subdivisions/pdfs/AppendixO.pdf>.

One of the purposes of a TIS is to identify off-site improvements. The applicant should expect a requirement to improve the section of Voshell Mill Road where there property has frontage to meet DelDOT standards for a Major Collector road. As shown in Figure 3.2.5-c of the Manual, these standards include 12-foot lanes and 8-foot shoulders. DelDOT will determine a specific requirement in the plan review process.

- 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 on Voshell Mill Road. By this regulation, this dedication is to provide a minimum of 40 feet from the physical centerline of Voshell Mill Road. The following right-of-way dedication note is required, **"An X-foot wide right-of-way is hereby dedicated to the State of Delaware, as per this plat."**
- 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 on Voshell Mill Road. 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 established to the State of Delaware, as per this plat."**
- In accordance with Section 3.5.4.2.A.3 of the Manual, DelDOT will require construction of a Shared Use Path along the property frontage on Voshell Mill Road to connect the existing paths opposite Park Lane and at the Town of Camden municipal building.
- 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 Michael Tholstrup 735-3352**

**Executive Summary.**

Development of this parcel will result in increased impervious surface and new sources of greenhouse gas emissions. Opportunities exist to reduce the environmental impact of development, on-site. Limiting impervious cover as well as including waste reduction and resource conservation measures will improve long term regional sustainability and protect the overall health of the community.

The State of Delaware is threatened by climate change and has a goal of reducing greenhouse gas emissions by 30 percent by 2030. Appropriate development that provides access to public transportation, opportunities to walk and bike to shopping and recreation, and that employs energy efficient building standards are among key strategies to meet these goals. DNREC encourages the use of high performance building standards and consideration of alternative energy sources to promote clean sustainable energy and reduce greenhouse gas emissions. This could mean siting the buildings to take advantage of solar and geothermal systems, and/or including infrastructure for electric vehicle charging stations (funding assistance may be found at [www.de.gov/cleantransportation](http://www.de.gov/cleantransportation)). DNREC further recommends an abundant use of native vegetation and shade trees throughout the landscape, as well as green infrastructure, where practicable, to absorb carbon dioxide, protect water quality and provide relief to residents on hot days.

The following pages provide information about applicable regulations and detailed recommendations associated with this project, from various DNREC Divisions. DNREC would like to be a partner in creating appropriate development that protects and highlights the environment as a natural amenity of the landscape. The Department has resources and expertise that are available to help make this a reality, often at no expense to the landowner.

#### **Water Quality: TMDLs.**

- The project is located in the greater Delaware River and Bay drainage area, specifically within the St. Jones River watershed. In this watershed, the State of Delaware has developed specific Total Maximum Daily Load (TMDL) pollutant reduction targets for nitrogen, phosphorus, and bacteria (under the auspices of Section 303(d) of the Clean Water Act). A TMDL is the maximum level of pollution allowed for a given pollutant below which a “water quality limited waterbody” can assimilate and still meet State water quality standards (e.g., dissolved oxygen, nutrients, and bacteria; State of Delaware Surface Water Quality Standards, as amended July 11, 2004) to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. The TMDL for the St. Jones River watershed calls for a 40 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for a 90 percent reduction in bacteria from baseline conditions. The specific TMDL nutrient and bacterial load reductions for the St. Jones watershed can be viewed here: <http://www.dnrec.delaware.gov/swc/wa/Pages/WatershedAssessmentTMDLs.aspx>

#### **Water Supply.**

- Should dewatering points be needed during any phase of construction, a dewatering well construction permit must be obtained from the Water Supply Section prior to construction of the well points. In addition, a water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation.
- All well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the wells. Please factor in the necessary time for processing the well permit applications into the construction schedule.

Dewatering well permit applications typically take four weeks to process, which allows the necessary time for technical review and advertising.

- Potential Contamination Sources exist in the area, and any well permit applications will undergo a detailed review that may increase turnaround time and may require site specific conditions/recommendations. In this case, there is an Underground Storage Tank associated with Shore Stop #106 is located within 1,000 feet of the proposed project. Should you have any questions concerning these comments, please contact Rick Rios, at (302) 739-9944.

**Sediment and Erosion Control/Stormwater Management**

- A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. Contact the reviewing agency to schedule a pre-application meeting to discuss the sediment and erosion control and stormwater management components of the plan. The site topography, soils mapping, pre- and post-development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion. The plan review and approval as well as construction inspection will be coordinated through the Kent Conservation District. Contact Jared Adkins, Program Manager, at (302) 741-2600, ext. 3, for details regarding submittal requirements and fees.

**Air Quality.**

- The applicant shall comply with all applicable Delaware air quality regulations. Please note that the following regulations in Table 1 – Potential Regulatory Requirements may apply to your project.

<b>Table 1: Potential Regulatory Requirements</b>	
<b>Regulation</b>	<b>Requirements</b>
<b>7 DE Admin. Code 1106 - Particulate Emissions from Construction and Materials Handling</b>	<ul style="list-style-type: none"> <li>• Use dust suppressants and measures to prevent transport of dust off-site from material stockpile, material movement and use of unpaved roads.</li> <li>• Use covers on trucks that transport material to and from site to prevent visible emissions.</li> </ul>
<b>7 DE Admin. Code 1144 – Control of Stationary Generator Emissions</b>	<ul style="list-style-type: none"> <li>• Ensure that emissions of nitrogen oxides (NO<sub>x</sub>), non-methane hydrocarbons (NMHC), particulate matter (PM), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), and carbon dioxide (CO<sub>2</sub>) from emergency generators meet the emissions limits established. (See section 3.2).</li> <li>• Maintain recordkeeping and reporting requirements.</li> </ul>
<b>7 DE Admin. Code 1145 – Excessive Idling of Heavy Duty Vehicles</b>	<ul style="list-style-type: none"> <li>• Restrict idling time for trucks and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes.</li> </ul>

For a complete listing of all Delaware applicable regulations, please look at our website:  
<http://www.awm.delaware.gov/AQM/Pages/AirRegulations.aspx>.

### **Recycling.**

- The Universal Recycling Law (7 *Del.C.*, §6053) and Regulations (7 *Del. Admin. C.* §1305) require all waste service providers to provide recycling collection to their residential customers including multi-family residential settings. Property owners/managers must provide information to residents and help facilitate services. Every trash dumpster should have an adjacent recycling dumpster. Those involved with the planning of new facilities should allocate space for collection of recyclables. For more information or assistance related to recycling requirements, benefits, tools, and assistance please call Don Long, at (302) 739-9403.

### **State Historic Preservation Office – Contact Terrence Burns 736-7404**

- There are no known archaeological sites, or known National Register-listed or eligible properties on the parcel. There was a dwelling (K06641) in the project area at one time that was demolished. There may be archaeological remains associated with the house. We recommend conducting an archaeological survey of the area. If any project or development proceeds, the developer should be aware of the Unmarked Human Burials and Human Skeletal Remains Law. 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, to avoid those sites or areas.
- Abandoned or unmarked family cemeteries are very common in the State of Delaware. They are usually in rural or open space areas, within or near the boundary, of a historic farm site. Even a marked cemetery can frequently have unmarked graves or burials outside of the known boundary line or limit. Disturbing unmarked graves or burials triggers the Delaware's Unmarked Human Burials and Human Skeletal Remains Law (Del. C. Title 7, Ch. 54), and such remains or discoveries can result in substantial delays while the procedures required under this law are carried out. If there is a discovery of any unmarked graves, burials or a cemetery, it is very costly to have them archaeologically excavated and the burials moved. The Division of Historical & Cultural Affairs recommends that owners and/or developers have a qualified archaeological consultant investigate their project area, to the full extent, to see if there is any unmarked cemetery, graves, or burial sites. In the event of such a discovery, the Division of Historical & Cultural Affairs also recommends that the plans be re-drawn to leave the full extent of the cemeteries or any burials on its own parcel or in the open space area of the development, with the responsibility for its maintenance lying with the landowner association or development. If you would like to see more information, please review the following websites: [www.history.delaware.gov/preservation/umhr.shtml](http://www.history.delaware.gov/preservation/umhr.shtml) and [www.history.delaware.gov/preservation/cemeteries.shtml](http://www.history.delaware.gov/preservation/cemeteries.shtml).

- 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. Owners and developers who may plan to apply for an Army Corps of Engineers permit or for federal funding, such as HUD or USDA grants, should be aware of the National Historic Preservation Act of 1966 (as amended). Regulations promulgated for Section 106 of this Act stipulate that no ground-disturbing or demolition activities should take place before the Corps or other involved federal agency determines the area of potential effect of the project undertaking. These stipulations are in place to allow for comment from the public, the Delaware State Historic Preservation Office, and the Advisory Council for Historic Preservation about the project's effects on historic properties. Furthermore, any preconstruction activities without adherence to these stipulations may jeopardize the issuance of any permit or funds. If you need 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](http://www.achp.gov)

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

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.
- Where a water distribution system is proposed for multi-family residential 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.
- 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

#### **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 at the main entrance (including the traffic island) 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 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 Bill Brockenbrough 760-2109**

- DelDOT is budgeting for construction of a Camden Bypass to begin in Fiscal Year 2021. This Bypass would connect Delaware Route 10 west of Camden to Delaware Route 10 east of Camden. However, DelDOT is presently in the process of completing a Planning and Environmental Linkage Study (PELS) needed to comply with the National Environmental Policy Act (NEPA) process. The PELS involves the evaluation of alternative alignments. As shown in the attached file, DelDOT is evaluating several alignments, all of which would pass through the proposed development as extensions of Connection Road and continue west following the north edge of the Camden municipal building property. DelDOT expects to submit a draft of the PELS to the Federal Highway Administration in March, to finalize the NEPA documents within the next few months and to then begin work on the design of a selected alternative. If an alternative is selected that involves an alignment through the property, DelDOT could then begin to discuss right-of-way acquisition. As necessary, DelDOT is available to meet with the Town and the applicant to discuss this process and their progress with regard to it.
- In the northeast corner of the proposed project, the support roadway, parking and garages for Building 15 appear to enter into the right-of-way for the Town of Camden’s East Street without continuation either of the right-of-way or apparent plans to otherwise address the “land-locking” of five existing residences that front on the street (Tax Parcel Nos. 7-02-09411-03-7802-0001, 7-02-09411-03-7804-0001, 7-02-09411-03-7800-0001, and 7-02-09411-03-7600-0001). The Town should require that the developer maintain access to those properties in a manner acceptable to the Town.
- Similarly, the plan appears to show a road or driveway connecting the rear portion of the Northeastern Supply parking lot and the south end of the residential portion of East Street to what may soon be the DelDOT-maintained intersection of Connection Road and the newly reconstructed East Street. However, there is no indication who would build and maintain this road or driveway, when they would build it, and what, if any, right-of-way would contain it. The Town should require that these matters be addressed in a manner acceptable to DelDOT and the Town.
- Section 3.5.4.4 of the Manual addresses DelDOT standards for accessways, meaning paths to connect residential developments to sidewalks and Shared Use Paths along their perimeters. DelDOT recommends that the Town require accessways from the development’s parking lots or internal sidewalks to connect to the Shared Use Path along Voshell Mill Road near Building 4, between Buildings 5 and 9 and at the west end of Building 9. Accessways to connect the proposed development to East Street near the north end of Building 2, between Buildings 3 and 4, near the north end of Building 2, and near the east ends of Buildings 15 and 19 also seem appropriate but, as mentioned above, East Street is outside DelDOT’s jurisdiction.
- 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 as of August 1, 2015, all new plan submittals and re-submittals, including major, minor and commercial plans, shall now be uploaded via the PDCA (Planning Development Coordination Application) with any review fee paid online via credit card or electronic check. Guidance on how to do this is available on our website at <https://www.deldot.gov/Business/subdivisions/index.shtml>.
- 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 date of December 8, 2017. The notes can be found at <https://www.deldot.gov/Business/subdivisions/index.shtml>.

**Department of Natural Resources and Environmental Control – Contact Michael Tholstrup 735-3352**

**Additional information on recycling and reducing water use.**

- Materials and resources utilized for new development should be considered, including regionally available recycled content (i.e. carpet, concrete, countertops, furniture, siding, etc.), rapidly renewable material and certified woods.
- Construction Waste Management should include policies which promote efficient material use and recycling of project debris.
- Employ systems and appliances that increase water efficiency and reduce water use.
  - Low-flow and high-efficiency items
  - Waterless urinals
  - graywater recycling systems
  - Rainwater catchment

**Additional information on TMDLs and water quality.**

- A Pollution Control Strategy (PCS) to achieve the required TMDL nutrient and bacterial load reduction requirements has been established for the St. Jones watershed. The St. Jones PCS strategies can be viewed here: <http://www.dnrec.delaware.gov/swc/wa/Pages/WatershedManagementPlans.aspx>

In support of the PCS, the applicant is strongly urged to reduce nutrient and bacterial pollutants through voluntary commitment to the implementation of the following recommended best management practices:

- Preserve and/or maintain as much of the existing open-space area as possible. DNREC further suggests additional native tree, shrub and/or native herbaceous vegetation plantings, wherever possible.
- Use pervious paving materials (when compatible or consistent with water quality concerns in designated areas of excellent recharge and/or well-head protection areas via determination by a DNREC hydrogeologist) instead of conventional

paving materials, to help reduce the amount of water and pollutant runoff ultimately draining to streams and wetlands in the greater St. Jones watershed.

- Assess nutrient and bacterial pollutant loading at the preliminary project design phase. To this end, the Watershed Assessment Section has developed a methodology known as the “Nutrient Load Assessment protocol.” The protocol is a tool used to assess changes in nutrient loading (e.g., nitrogen and phosphorus) resulting from the conversion of individual or combined land parcels to a changed land use; thus providing applicants and governmental entities with quantitative information about the project’s impact(s) on baseline water quality. DNREC strongly encourages the applicant/developer use this protocol to design and implement the most effective best management practices. Please contact John Martin of the DNREC Division of Watershed Stewardship, at (302) 739-9939 for more information on the protocol.

#### **Additional information on air quality.**

- New homes may emit, or cause to be emitted, additional air contaminants into Delaware’s air, which will negatively impact public health, safety and welfare. Air emissions generated from new homes include emissions from the following activities:
  - Area sources such as painting, maintenance equipment and the use of consumer products like roof coatings and roof primers.
  - The generation of electricity, and
  - All transportation activity.
- Based on the information provided, the area, power and mobile source emissions, were quantified. Table 2 – Projected Air Quality Emissions represents the potential impact that the King Residential project may have on air quality.

Emissions Attributable to the King Residential (Tons per Year)	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NOx)	Sulfur Dioxide (SO <sub>2</sub> )	Fine Particulate Matter (PM <sub>2.5</sub> )	Carbon Dioxide (CO <sub>2</sub> )
Area source emissions	14.1	1.6	1.3	1.7	57.2
Power emissions	*	5.6	19.5	*	2,870.1
Mobile emissions	20.9	21.8	0.6	0.2	13,477.1
Total emissions	35.0	29.0	21.4	1.9	16,404.4

(\* ) Indicates data is not available.

Note that emissions associated with the actual construction of the subdivision, including automobile and truck traffic from working in, or delivering products to the site, as well as

site preparation, earth moving activities, road paving and other miscellaneous air emissions, are not reflected in the table above.

- Site/Project-Specific Recommendations:
  - This project should be evaluated for future traffic impacts to the area including the segment of road included between Lochmeath Way and the Puncheon Run Connector.
  - Planting of native shade trees to clean the air of localized pollutants and cut down on residential energy/cooling costs.
  - The use of reclaimed asphalt pavement (RAP), which reduces heat island effects on paved surfaces, reduces landfill waste, is a sustainable pavement and more economically feasible than other pavement types.
  - Use only the minimum number of parking spaces to reduce the amount of impervious surface cover.
  - Use of energy efficient products in construction to lessen the power source emissions of the project and costs.
  - Electric vehicle charging in common areas to facilitate the expansion of a clean fuel infrastructure.
  - Expansion of the bicycle/pedestrian network through sidewalks and bike lanes which promote alternative forms of transportation. According to the DelDOT Gateway application, this project has an opportunity to connect to a bicycle connector route off of Voshell Mill Road.
  - Expansion of the transit network in order to facilitate transit service to the new development. The DART Bus Stop Map indicates that two bus stops are located near this development, Bus Route 104 outbound and inbound.
  - Beautification and landscaping to generate a context-sensitive design that would blend in well with surrounding land uses while also helping to mitigate the pollution potential of the project.
  
- Tree Buffer or Canopy: Some green streetscape elements that the King Residential project could incorporate are a tree buffer or expansion of the Town of Camden's tree canopy. According to the Delaware Forest Service, in 2014, Camden's urban tree canopy was 17.8 percent (418.6 acres).

Native, low VOC emitting trees reduce emissions by trapping dust particles and replenishing oxygen. Every effort should be made to ensure as many existing, native trees are preserved as possible. Trees also reduce energy emissions by cooling during the summer and by providing wind breaks in the winter, whereby reducing air conditioning needs by up to 30 percent and saving 20 to 50 percent on fuel costs.

All urban trees that are selected should be native to Delaware and preferably low VOC emitting trees. Every tree has a different biogenic emissions rate by which they release VOC's into our atmosphere. As a general rule, the best trees to plant are those that have a

large leaf surface area at maturity, contain leaf characteristics that are amenable to particle collection from particulate matter (PM) such as those that have hairy or sticky leaves and have high transpiration rates which result in relatively high temperature reduction. White pines, Heritage River Birch, and American Beech fall within these categories and contain these characteristics. Check out the National Tree Benefit Calculator to see the benefits planting trees can have in terms of economic and environmental value:

[https://www.arborday.org/calculator/index.cfm?utm\\_medium=TreeGuideMenu%2Bfeature&utm\\_campaign=TreeCalculator](https://www.arborday.org/calculator/index.cfm?utm_medium=TreeGuideMenu%2Bfeature&utm_campaign=TreeCalculator)

- Energy Efficient Options: Constructing with only energy efficient products can help your housing units and commercial space immensely, not only in terms of environmental sustainability but financially. Energy Star qualified products are up to 30 percent more energy efficient. Savings come from building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems and upgraded water-heating equipment as well as third-party certifications and building materials (i.e. LEED, Greenseal, EcoLogo). Every percentage of energy efficiency translates into a percent reduction in pollution.

Economic benefits include:

- Reduced operating costs
- Enhanced asset value and profits
- Enhanced occupant comfort and health
- Improved air, thermal, and acoustic environments

The Energy Star Program is an excellent way to save on energy costs and reduce air pollution. Providing shade for parking areas can also be of added benefit to this facility. Some approaches may include architectural devices, vegetation, or solar panels. Providing shade for parking areas helps to reduce heat island impacts, and, by extension, helps to minimize the potential for localized ground-level ozone formation. Such measures can also have the additional benefit of channeling or infiltrating storm water. For more about energy efficient options, please see: <https://www.energystar.gov/> or <https://www.epa.gov/greeningepa/energy-efficiency-epa>.

- Multi-modal travel: A component of improving existing air quality levels is to maximize multi-modal travel through bike lanes and sidewalks. DNREC was pleased to see sidewalks are included in the future development. DNREC encourages the developer to include crosswalks and to add sharrows or bike lanes where needed to encourage multi-modal travel opportunities. Sharrows and striping are the easiest and most cost effective option. According to the DelDOT Gateway application, there is an opportunity to connect to a bicycle connector route off of Voshell Mill Road. Please see the following link for more details: <http://deldot.maps.arcgis.com/apps/webappviewer/index.html?id=c33fdabe66be4f9799bceb92da5900ba>. Multi-modal travel can significantly reduce mobile source emissions. For

every vehicle trip that is replaced by the use of a sidewalk or bike path, 7 pounds of VOC and 11.5 pounds of NOx are reduced each year.

Also, for more information on the impacts of multimodal access on air quality please see the EPA's website at: <https://www3.epa.gov/otaq/>.

- **Transit Expansion:** Transit services are a vital component in addressing transportation equity as well as air quality impacts. Transit's inclusion as a viable transportation option reduces greenhouse gas (GHG) emissions by assisting in compact development (transit-oriented development), conserving land and also reduces congestion by taking single occupancy vehicles off of the road.

The future development lies along a Bus Route off of Route 13 and Voshell Mill, Bus Route 104 inbound and outbound. It is recommended that transit be utilized for this community. For more information on DART bus routes in your area, please see: [www.dartfirststate.com](http://www.dartfirststate.com) and visit the "Bus Stop Map" application.

- **Electric Vehicle Charging Expansion:** The developer is recommended to include Electric Vehicle Supply Equipment (EVSE)/ charging where feasible in common areas. For example, near the clubhouse. Incorporating electric vehicle charging capabilities in homes could also be marketed as a unique selling feature while also accommodating Delaware's clean transportation goals.

For more information on this subject and what charging to make available please visit the following link: <https://www.chevyevlife.com/bolt-ev-charging-guide/>

**Electric Vehicle Charging (EVSE) Expansion:** Include electric vehicle supply equipment (ESVE)/ charging infrastructure where feasible, particularly in common areas.

Incorporating electric vehicle charging capabilities in common parking areas could also be marketed as a unique amenity while also accommodating Delaware's clean transportation goals. More information can be viewed here: [DE.Gov/cleantransportation](http://DE.Gov/cleantransportation)

- **Development Beautification:** The developer is encouraged to beautify the development site with landscaping that would not only make the subdivision more attractive but also help to clean the air of any pollutants that could be emitted or transported by sources around the development area such as pollutants from mobile sources, construction or neighboring activities. This would reduce air quality impacts on residents while also incorporating a context-sensitive design that blends well with the surrounding development and existing land uses.
- The overall project enhancements will create valued upgrades to the existing community and add air quality benefits. Should the developer have any more questions or concerns, the DNREC Division of Air Quality (DAQ) point of contact is Lauren DeVore, and she may be reached at (302) 739-9437 or [lauren.devore@state.de.us](mailto:lauren.devore@state.de.us). The applicant is encouraged to contact DAQ to discuss any emission mitigation measures that will be incorporated into the King Residential project. DNREC looks forward to working together with you on this project to achieve our shared air quality goals.

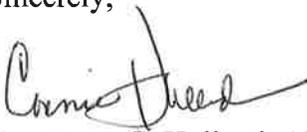
**Delaware State Fire Marshall's Office – Contact Duane Fox 739-4394**

- 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](http://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,



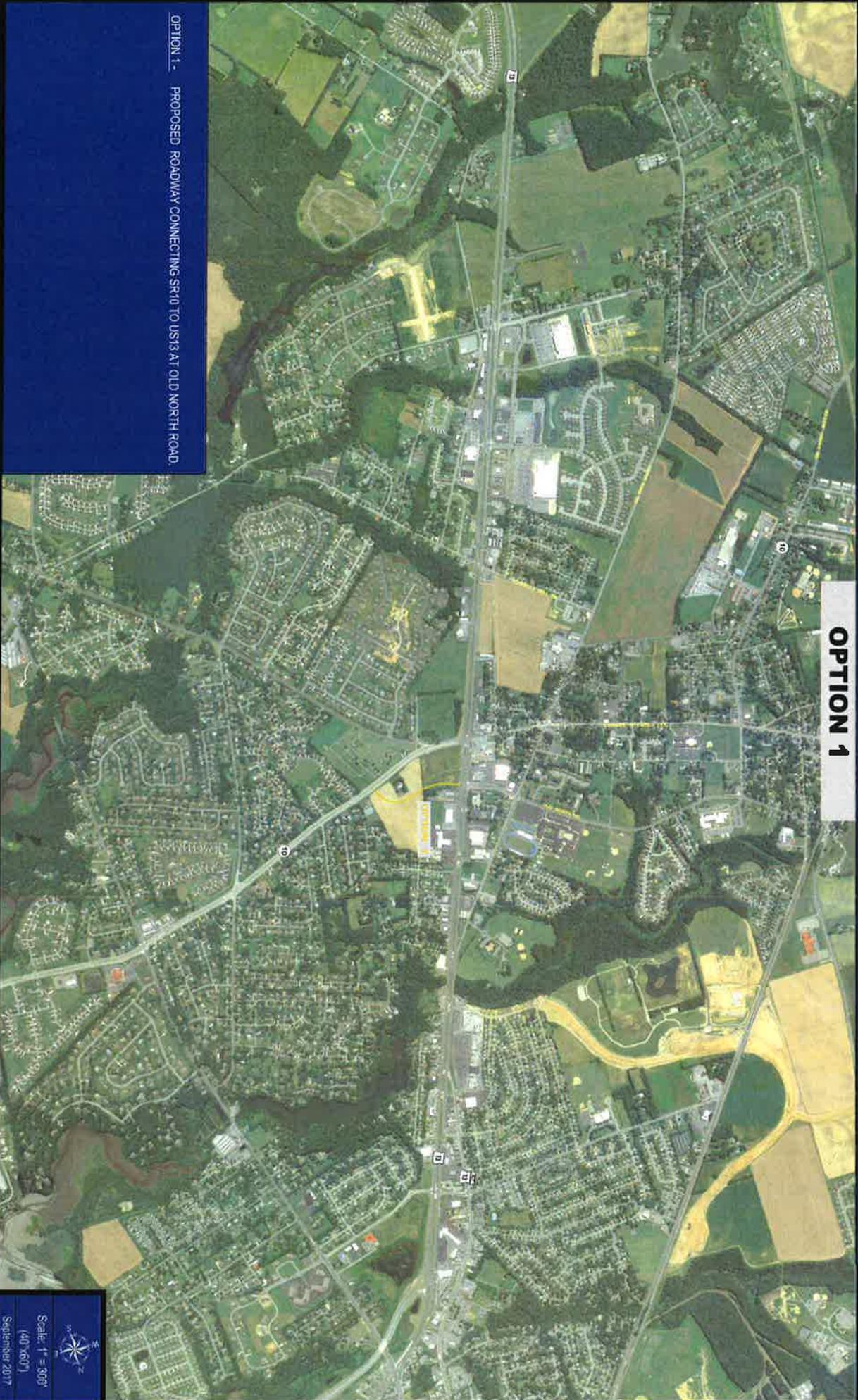
Constance C. Holland, AICP  
Director, Office of State Planning Coordination

CC: Kent County  
Town of Camden

Attachment



**OPTION 1**



OPTION 1 - PROPOSED ROADWAY CONNECTING SR10 TO US13 AT OLD NORTH ROAD.

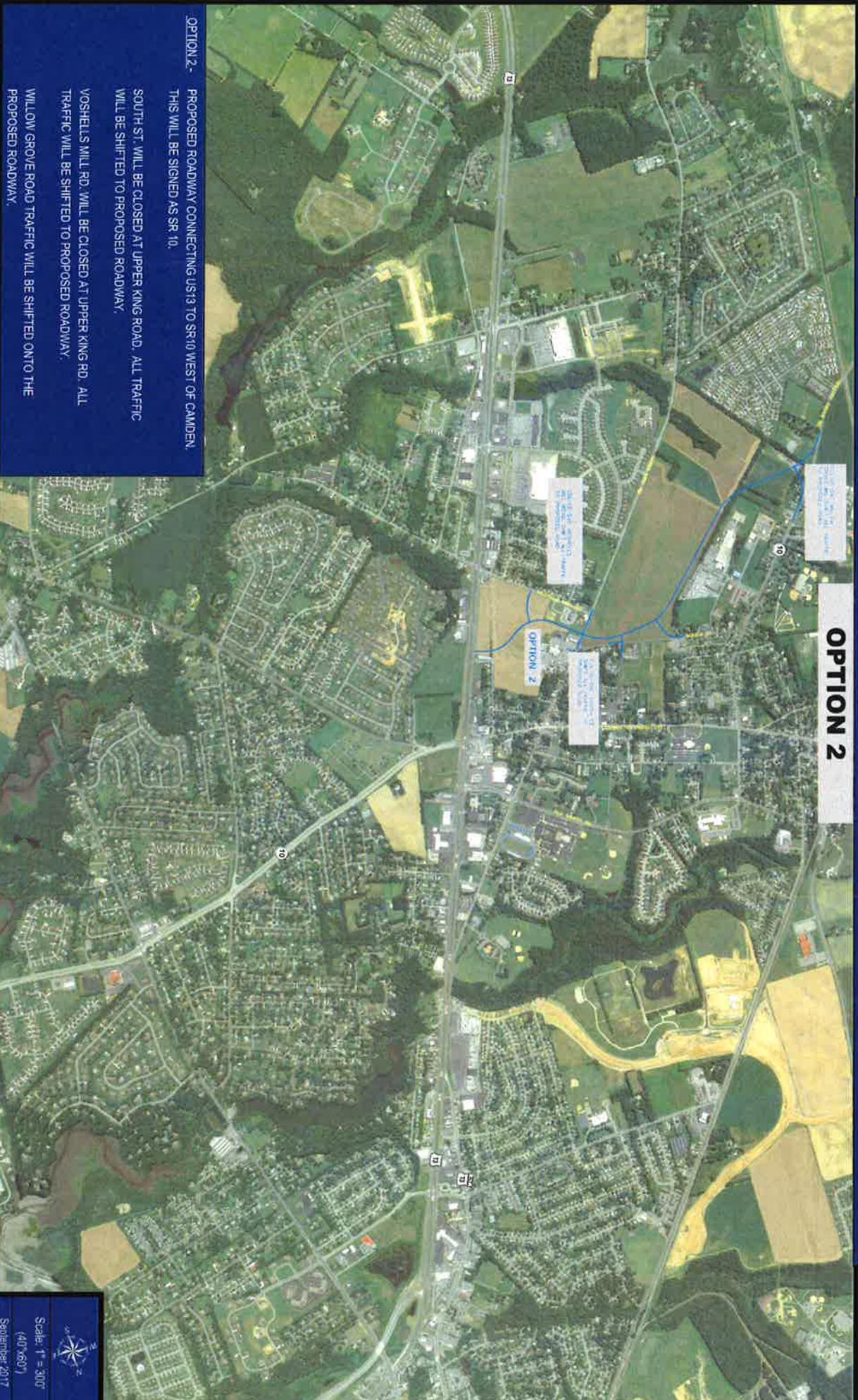


Scale: 1" = 300'  
(40'x60')

September 2017



**OPTION 2**



**OPTION 2 -** PROPOSED ROADWAY CONNECTING US13 TO SR10 WEST OF CAMDEN. THIS WILL BE SIGNED AS SR 10.

SOUTH ST. WILL BE CLOSED AT UPPER KING ROAD. ALL TRAFFIC WILL BE SHIFTED TO PROPOSED ROADWAY.

VOSHILLS MILL RD. WILL BE CLOSED AT UPPER KING RD. ALL TRAFFIC WILL BE SHIFTED TO PROPOSED ROADWAY.

WILLOW GROVE ROAD TRAFFIC WILL BE SHIFTED ONTO THE PROPOSED ROADWAY.



Scale: 1" = 300'  
(40'x60')

September 2017



**OPTION 3**



**OPTION 3 -** PROPOSED ROADWAY CONNECTING US13 TO SR10 WEST OF CAMDEN. THIS WILL BE SIGNED AS SR 10.

SOUTH ST. AND VOSHHELLS MILL RD. WILL BE CLOSED AT UPPER KING ROAD. ALL TRAFFIC WILL BE SHIFTED TO PROPOSED ROADWAY.  
WILLOW GROVE RD. TRAFFIC WILL BE SHIFTED ONTO THE PROPOSED ROADWAY.  
PROPOSED ROADWAY CONNECTING SR10 TO US13 SOUTHWEST OF CAMDEN.  
ALL MOVEMENTS ALLOWED AT SR10/IRISING SUN RD. INTERSECTION.

Scale: 1" = 300'  
(40'x60')  
September 2017

# US13, SOUTH DOVER/CAMDEN/WYOMING PLANNING STUDY



## OPTION 4



**OPTION 4 -** PROPOSED ROADWAY CONNECTING SR10 TO US13 AT OLD NORTH RD.

PROPOSED ROADWAY CONNECTING US13 TO SR10 WEST OF CAMDEN. THIS WILL BE SIGNED AS SR 10.

SOUTH ST. AND VOSHHELLS MILL RD. WILL BE CLOSED AT UPPER KING RD. ALL TRAFFIC WILL BE SHIFTED TO PROPOSED ROADWAY.

WILLOW GROVE RD. TRAFFIC WILL BE SHIFTED ONTO THE PROPOSED ROADWAY.

PROPOSED ROADWAY CONNECTING SR10 TO US13 SOUTHWEST OF CAMDEN.

ALL MOVEMENTS ALLOWED AT SR10/RISING SUN RD. INTERSECTION.

LEFT TURNS WILL NOT BE ALLOWED FROM US13 SB ONTO SR10 EB. LEFT TURNS WILL USE EITHER OLD NORTH RD. OR INTERSECTION OF PROPOSED ROADWAY AND US13.

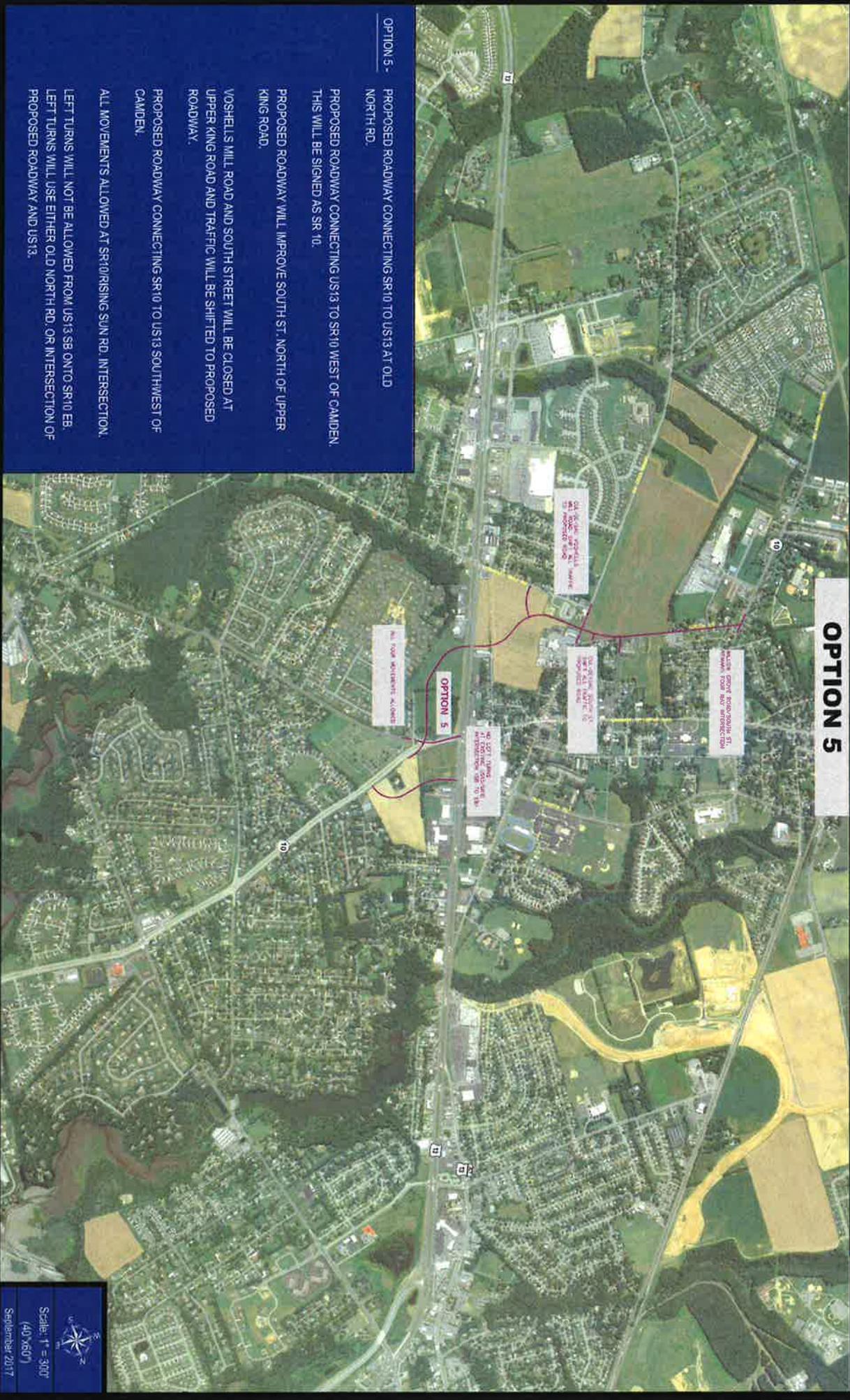


Scale: 1" = 300'  
(40' x 60')  
September 2017

**US13, SOUTH DOVER/CAMDEN/WYOMING PEL STUDY**



**OPTION 5**



**OPTION 5 -** PROPOSED ROADWAY CONNECTING SR10 TO US13 AT OLD NORTH RD.

PROPOSED ROADWAY CONNECTING US13 TO SR10 WEST OF CAMDEN. THIS WILL BE SIGNED AS SR 10.

PROPOSED ROADWAY WILL IMPROVE SOUTH ST. NORTH OF UPPER KING ROAD.

VOSHILLS MILL ROAD AND SOUTH STREET WILL BE CLOSED AT UPPER KING ROAD AND TRAFFIC WILL BE SHIFTED TO PROPOSED ROADWAY.

PROPOSED ROADWAY CONNECTING SR10 TO US13 SOUTHWEST OF CAMDEN.

ALL MOVEMENTS ALLOWED AT SR10/RISING SUN RD. INTERSECTION.

LEFT TURNS WILL NOT BE ALLOWED FROM US13 SB ONTO SR10 EB. LEFT TURNS WILL USE EITHER OLD NORTH RD. OR INTERSECTION OF PROPOSED ROADWAY AND US13.

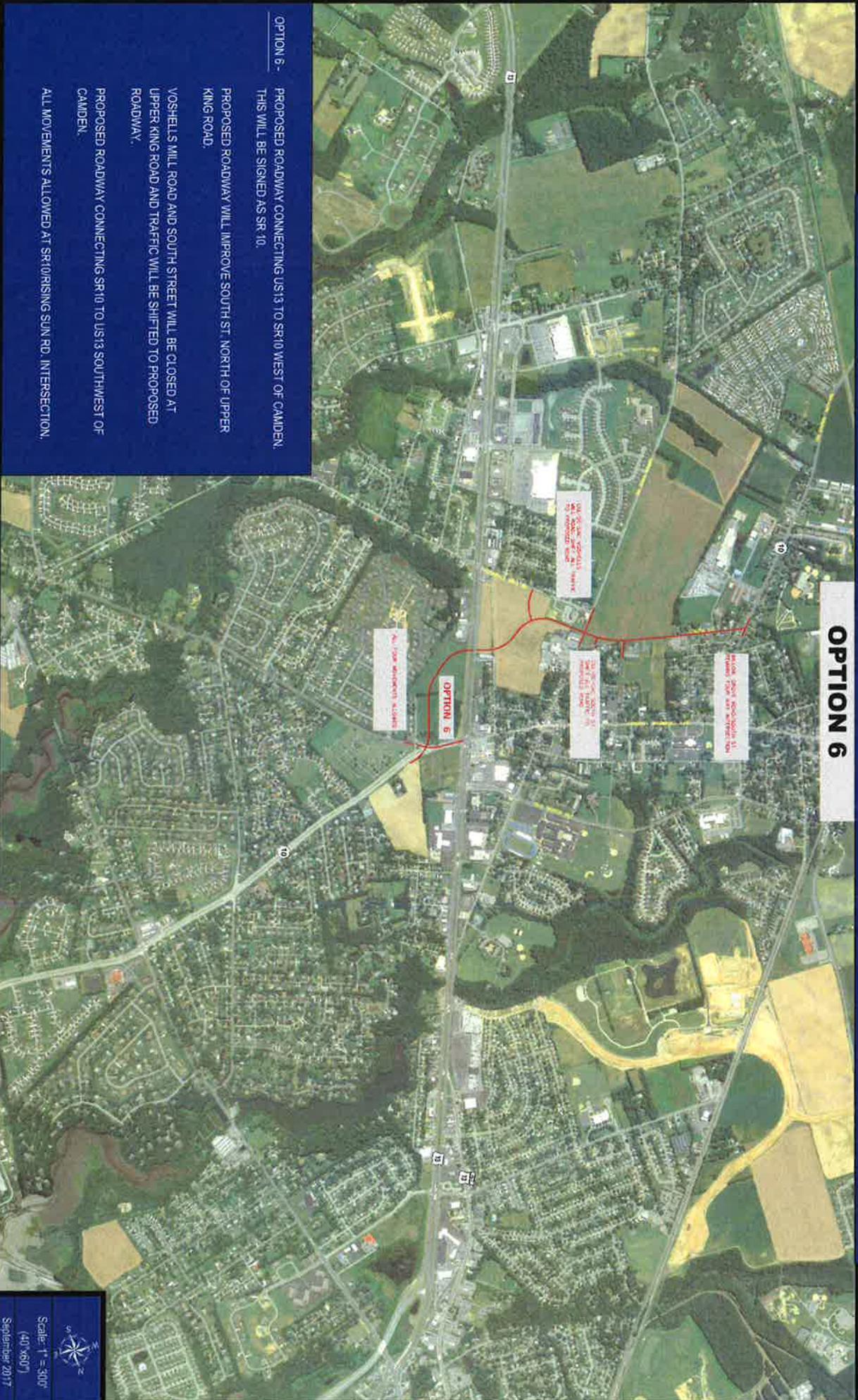


Scale: 1" = 300'  
(40 x 60")

September 2017



**OPTION 6**



**OPTION 6 -** PROPOSED ROADWAY CONNECTING US13 TO SR10 WEST OF CAMDEN. THIS WILL BE SIGNED AS SR 10.

PROPOSED ROADWAY WILL IMPROVE SOUTH ST. NORTH OF UPPER KING ROAD.

VOSHILLS MILL ROAD AND SOUTH STREET WILL BE CLOSED AT UPPER KING ROAD AND TRAFFIC WILL BE SHIFTED TO PROPOSED ROADWAY.

PROPOSED ROADWAY CONNECTING SR10 TO US13 SOUTHWEST OF CAMDEN.

ALL MOVEMENTS ALLOWED AT SR10/RISING SUN RD. INTERSECTION.



Scale: 1" = 300'  
(40' x 60')

September 2017

# US13, SOUTH DOVER/CAMDEN/WYOMING PLANNING STUDY



## OPTION 7



Scale: 1" = 300'  
(40' x 60')  
September 2017