BECKER MORGAN GROUP

ARCHITECTURE
ENGINEERING

PLANNING OUR
CLIENTS' SUCCESS

April 8, 2016

Constance C. Holland, AICP
Director, Office of State Planning Coordination
112 Martin Luther King Blvd.
Dover, DE 19901

RE: **PLUS Review Response 2016-02-07**
CHESAPEAKE UTILITIES DOVER CAMPUS
Dover, Delaware
2005019.11

Dear Ms. Holland:

Becker Morgan Group, Inc. is hereby responding to the above referenced PLUS Review Comments dated March 23, 2016. The project, located within the City of Dover, falls under the City of Dover's jurisdiction and shall follow applicable codes and requirements set forth by the City of Dover. Below is our response to the recommendations section of the March 23, 2016 report:

Department of Transportation – Contact Bill Brockenbrough 760-2109

- According to our records, Stover Boulevard and Krisko Circle have not been accepted for public maintenance yet. When they are accepted, it would normally be by the City of Dover. DelDOT does not accept subdivision streets within municipalities for State maintenance. While it is therefore not a DelDOT requirement, we would recommend that the City require construction of a sidewalk along Stover Boulevard from the existing shared use path on Bay Road to the site and then one or more walkways into the site from the sidewalk. It would be reasonable to place at least part of that sidewalk on the north side of Stover Boulevard to avoid harming the trees on the American Legion property and to take advantage of the existing sidewalk fronting the hotel property.

  Response: We have noted the Departments request to construct the sidewalk connecting the hotel property with the shared use path along Bay Road. As this property is an undeveloped parcel within the business park and is not owned by Eastern Shore nor subject to this application and we will not be constructing this portion of the sidewalk. As part of application to the City of Dover, the project will be providing roughly 1,200 lf of sidewalk along Krisco Circle on right-of-way adjacent to the subject property.

- Because the proposed development would generate more than 200 vehicle trips per day, 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 http://www.deldot.gov/information/business/subdivisions/Meeting_Request_Form.pdf.

  Response: As the overall business park takes access from Bay Road, a DelDOT right-of-way, the business park entrance has been approved, constructed and accepted by DelDOT previously. The project, subject to this application, does not take access from a DelDOT right-of-way. Stover Boulevard and Krisco Circle are City of Dover maintained streets. The business park entrance was previously approved with a dedicated number of trips as stated in the report. Additionally, there was no mention within the City of Dover's Development Advisory committee's

BECKER MORGAN GROUP, INC.

ARCHITECTURE & ENGINEERING

309 SOUTH GOVERNORS
AVENUE
DOVER, DE 19904
302.734.7950
FAX 302.734.7965

PORT EXCHANGE
SUITE 300
312 WEST MAIN STREET
SALISBURY, MD 21801
410.546.9100
FAX 410.546.5824

ARCHITECTURE & PLANNING

SUITE 211
3205 RANDALL PARKWAY
WILMINGTON, NC 28403
910.341.7600
FAX 910.342.7506

www.beckermorgan.com

notes from DelDOT as to required submissions for plan approval. As this project proposes a number of trips less than what was previously approved and takes access to a city street in a previously approved business park with an approved constructed and accepted entrance, we will not be submitting plans for DelDOT approval.

- 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 http://www.deldot.gov/information/business/subdivisions/

  Response: Comment noted

- 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 January 28, 2016. The notes can be found at http://www.deldot.gov/information/business/subdivisions/Sheet_Notes.doc?012816.

  Response: Comment Noted

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

Soils Assessment

- Based on soils survey mapping update, the soils mapping units mapped on subject parcel are Nassawango (NsB), Pineyneck (PyB), and Fallsington (FgA). Nassawango and Pineyneck are moderately well-drained soil mapping units with moderate limitations for development. Fallsington is a poorly-drained wetland associated (hydric) soil mapping unit with severe limitations for development (considered unsuitable).

  We strongly discourage building on hydric soils (e.g., Fallsington) because they are functionally important source of water storage (functions as a "natural sponge"); the loss of water storage through excavation, filling, or grading of intact native hydric soils increases the probability for more frequent and destructive flooding events. The probability for flooding is further compounded by increases in surface imperviousness as building density in the area increases over time. Moreover, destruction of hydric soils increases the amount of pollutant runoff (i.e., hydric soils sequester and detoxify pollutants) which contributes to lower observed water quality in regional waterbodies and wetlands.

  Response: Although, the soils survey map may show hydric soils on the site, the Stover Business Park was previously cleared and bulk graded for development. The approved road and infrastructure system has been installed and ready for construction of the individual lots. Hydric Soils are not located on site currently.

TMDL compliance through the PCS.

- A Pollution Control Strategy (PCS) to achieve the required TMDL nutrient and bacterial load reduction requirements has been established for the St. Jones watershed. Additional information on the St. Jones PCS strategies can be found 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 the implementation of the following recommended BMPs:

- Maintain the existing forest cover in the northeast portion of subject project. We suggest preserving additional areas of open space via additional plantings of native tree, shrubs, or herbaceous vegetation, wherever possible.

  Response: the existing forested area is outside the intended development and will be maintained.

- Hire a licensed soil scientist to conduct a field-based delineation of the hydric soils and/or wetlands on this site. A list of licensed soil scientists can be obtained from the Ground Water Discharges Branch; the Branch can be reached by phone at (302) 739-9947. According the PLUS application, a wetlands delineation was not conducted nor approved by the United States Army Corps of Engineers. We strongly recommend that that applicant obtain approval by the USACE before commencing any construction activities.

  Response: There are no hydric soils located on site.

- Maintain a vegetated buffer of at least 100 feet from the adjoining wetlands and waterbodies. An adequately-sized buffer that effectively protects wetlands and streams, in most circumstances, is about 100 feet in width. In recognition of this research and the need to protect water quality, the Watershed Assessment Section recommends that the applicant maintain/establish this aforementioned 100-foot buffer width (planted in native vegetation) from all waterbodies, non-tidal and tidal wetlands (i.e., ponds, USACE approved field wetlands delineation for non-tidal wetlands and State approved wetlands delineation for tidal wetlands and other State-regulated wetlands).

  Response: A landscape plan has been created for the property and wetlands do not exist on the parcel so no buffer has been established.

- Calculate post-construction surface imperviousness with all forms of created (or constructed) surface imperviousness (e.g., rooftops, driveways, parking lots, sidewalks, open-water storm water management structures, ponds, and roads) included in the calculation. Omission of any of the above-stated forms of surface imperviousness will result in an underestimate of the actual post-development surface imperviousness and the associated environmental impacts.

  Response: Post construction verification of impervious cover will be verified prior to plan approval from both the City of Dover and The Kent Conservation District.

- Employ green-technology storm water management and rain gardens (in lieu of open-water management structures) as BMPs to mitigate or reduce nutrient and bacterial pollutant runoff. Please contact Lara Allison at (302) 739-9939 for further information about the possibility for installing rain gardens on this parcel.

  Response: As part of the City of Dover's plan approval process, an approved landscape plan has been prepared which incorporates a number of plants and planted areas which will help in nutrient uptake. However, there are no formal plans for formal rain gardens per se.

- Use pervious paving materials instead of conventional paving materials (e.g., asphalt or concrete) to help reduce the amount of water and pollutant runoff draining to adjoining streams and wetlands. Pervious pavers are especially recommended for areas designated for parking.

  Response: Due to the extent of the paving surface, and the amount of heavier vehicular traffic, pervious materials for paved areas cannot be considered due to wear and tear and shortened lifespan of the material.

- 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. We strongly encourage the applicant/developer use this protocol to help design and implement the most effective BMPs. Please contact John Martin or Jen Walls of the Division of Watershed Stewardship, at (302) 739-9939 for more information on the protocol.

  Response: Comment Noted

Additional information on tank management.

- When contamination is encountered, PVC pipe materials should be replaced with ductile steel and nitrile rubber gaskets in the contaminated areas.

  If any aboveground storage tanks (ASTs) less than 12,500 gallons are installed, they must be registered with the TMS. If any ASTs greater than 12,500 gallons are installed, they are also subject to installation approval by the TMS.

  Response: Comment Noted

Additional information on hazardous waste sites.

- Should a release or imminent threat of a release of hazardous substances be discovered during the course of development (e.g., contaminated water or soil), construction activities should be discontinued immediately and DNREC should be notified at the 24-hour emergency number (800) 662-8802. SIRB should also be contacted as soon as possible at (302) 395-2600 for further instructions.

  Response: Comment Noted

Additional information on air quality.

- New homes may emit, or cause to be emitted, air contaminants into Delaware's air, which will negatively impact public health, safety and welfare. These negative impacts are attributable to:
  - Emissions that form ozone and fine particulate matter; two pollutants relative to which Delaware currently violates federal health-based air quality standards,
  - The emission of greenhouse gases which are associated with climate change, and
  - The emission of air toxics.

  Response: The project does not propose the construction on new homes, but the comment is noted.

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 needed to support the new homes, and
- All transportation activity.

Response: The project does not propose the construction on new homes, but the comment is noted.

Recommendations: Additional measures may be taken to substantially reduce the air emissions identified above. These measures include:

- **Constructing with only energy efficient products.** Energy Star qualified products are up to 30% 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. Every percentage of energy efficiency translates into a percent reduction in pollution. The Energy Star Program is an excellent way to save on energy costs and reduce air pollution.

  Response: Comment Noted

- **Offering geothermal and/or photo voltaic energy options.** These systems can significantly reduce emissions from electrical generation and from the use of oil or gas heating equipment.

  Response: Comment Noted

- **Constructing with high albedo, high solar reflectance materials**. This includes roofing and hardscape. These materials help to reduce heat island impacts and, by extension, help to minimize the potential for localized ground-level ozone formation. These materials also help reduce demands on air conditioning systems and save on energy costs.

  Response: Comment Noted

- **Providing infrastructure for plug-in vehicles.** Such measures may entice employees to purchase electric vehicles if the electrical outlets are available as this will help minimize vehicle emissions.

  Response: Comment Noted

- **Providing shade for parking lot areas.** 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 stormwater.

  Response: A number of Trees have been proposed for the site. When mature, will provide additional shaded areas around the parking lots.

- **Encouraging the use of safe multimodal transportation**. This measure 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.

Response: Comment Noted

- **Using retrofitted diesel engines during construction**. This includes equipment that is on-site as well as equipment used to transport materials to and from site.

Response: Comment Noted

- **Using pre-painted/pre-coated flooring, cabinets, fencing, etc**. These measures can significantly reduce the emission of VOCs from typical architectural coating operations.

Response: Comment Noted

Planting trees in vegetative buffer areas. Native trees reduce emissions by trapping dust particles and replenishing oxygen. 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.

Response: As previously stated a number of trees, approximately 300, have been proposed for the site.

Please review the enclosed documents at your earliest convenience and do not hesitate to contact me with any questions or concerns.

Sincerely,

BECKER MORGAN GROUP, INC.

Jonathan N. H. Street
Civil Designer

JNS/rlh

Cc: Mark Parker, Eastern Shore Natural Gas

200501911ao-plus-resp.ltr.docx