

**CHESAPEAKE BAY CRITICAL AREA
ENVIRONMENTAL ASSESSMENT**

**FOR
The Lands of
Windward Investment, LLC
"Chesapeake Reach"
P.O Box 327
Royal Oak, Maryland 21662**

PREPARED BY: LANE ENGINEERING, LLC

**M. Stark McLaughlin
Environmental Planner
Register Professional Forester # 156
Certified Arborist #MA 3271
117 Bay Street
Easton, MD 21601**

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SECTION ONE
Introduction

- A. Project Summary: The owner Windward Investments LLC of deeded lots 12,13 and 15 – 28 on the Town right of way known as Chesapeake Avenue propose improve and develop the lots for single housing units. Chesapeake Avenue is a partially improved Town owned right of way. The area is design as Tax Parcel 200 Grid 21 Parcels 1785 and 1783. The total area is within the Chesapeake Bay Critical Area. The proposal would construct the road to current Town standards and provide on site storm water management for the site. Existing lots 12 and 13 will be combined to create Parcel 1783 containing 12, 000 square feet and are owned by Windward Investments. The total area of all available lots within the project is 2.316 acres. A portion of the site, approximately 0.041 acres will be utilized for Storm Water Management and open space. The lots to be created are in conformance with the subdivision regulations of the St. Michaels Zoning Ordinance and currently are zoned as "LDA" and are proposed to be changed to "IDA". The new configuration of the lots will create lots "A" through "H" and Parcel 1783 as lot "I". The reconfigured Lot "I" will contain 10,012 square feet. These new configurations conform to the current lot size standards for the Town.
- B. Project Location: The project site is located in the within the town limits of St. Michaels, Talbot County Maryland. It can be found on Tax Map 200, Grid 21, Parcel 1785 and 1783. The subject site is located within the Critical Area associated with San Domingo Creek and Broad Creek and the Choptank River watershed.
- C. Project Site Description: The site is comprised of individual trees and open

managed lawn areas. The parcel is located within the upper reach of the headwaters of San Domingo Creek a tributary of Broad Creek and the Chesapeake Bay. The site is generally level with a slight fall to the Canton Street end of the property. The trees on the site are the result of old fields being abandoned and the natural seeding of loblolly pines and a mix of hardwoods. Approximately 1 acre of the site has been maintained as open and mowed lawn.

SECTION TWO

Natural Resources Inventory

- A. Soils: The Talbot County Soil Survey list 3 soil types located on the site. These soil types have been identified by the Soil Conservation Service Soils Maps 16 & 23 and are listed below:

BaB2- Barclay 2-5%
My- Mixed alluvials
Oh- Othello silt loam

Of the soils listed above, Mixed alluvial (My) and Othello silt loam (Oh) are considered to be hydric soils. The remaining soil, Barclay although somewhat poorly drained are not considered to be hydric. The mapping of the mixed alluvial soil type in the Talbot County Soil Survey extends further north on the site than the actual field indicators. The mixed alluvial soil does not appear to extend into the proposed building areas of the lots.

- B. Tidal Wetlands: No tidal wetlands are present on the site.
- C. Nontidal Wetlands: A nontidal wetland investigation has been performed on the subject property. This investigation was based upon the criteria mandated by the Federal Government based upon the 1987 Federal Manual for Wetlands Identification and is in conformance with the subdivision regulations of St. Michaels, Maryland. In order to meet the definition of a

nontidal wetland under this mandate, the three parameters of hydrophytic vegetation, wetland hydrology, and hydric soils must be satisfied for an area to be considered a nontidal wetland. Based on in-house research and a site visits, it has been determined that the site does contain several areas of nontidal wetlands. These areas are located within the designated right of way Chesapeake Avenue; in association with the intermittent stream which transverses the back portion of the property and a small isolated pocket of 0.068 acres located on reconfigured lot "I". The stream originates off the property and flows to a pipe under Canton Street. The dominate vegetation on the forested nontidal wetlands is persimmons, sweet gum and maple with an understory of winter berry. The emergent nontidal wetlands are comprised of Swamp milkweeds, *Asclepias incarnate*; False nettle, *Boehmeria cylindrica* and Beggar-ticks, *Bidens forndosa*, Wool grass, *Scirpus cyperinus* and Rushes, *Juncus spp.* Non tidal wetlands are also located in south end of the property in the drainage area associated with the ditched stream created to convey water and runoff from the areas near Rail Road Avenue and are a maintained drainage easement for the town drainage for improved and unimproved lots or record. Portions of this area are a thicket of Phragmites which should be controlled. These isolated areas have been fully investigated and survey located. The Maryland Department of the Environment has been on site and concurs with the current wetland delineations. As stated, the research was conducted utilizing the Talbot County Soils Survey, National Wetland Inventory Maps, Talbot County Photo Resource Maps, and field assessments of the site conditions on various dates starting in June of 2007.

- D. Plant and Wildlife Habitat: Per field delineations and assessments of the site by Stark McLaughlin of Lane Engineering, LLC, the majority of the site is open lawn and individual trees with a portion in forest cover. The forested areas are approximately 45 years old with some older individual trees scattered on the property lines. The development site contains a mix of

Loblolly Pine, Willow Oak, Red oaks, Box elder, Black locust, Black walnut, Sweet and Black gums and Red maples. In the lower and wetter areas, Sweet gum and Box elder dominates the site. Early successional species including sweet gum, red maple and persimmons continue to colonize the areas not being mowed.

The forested and buffer edges of the site provide habitat for a variety of small mammals. The forest is currently comprised of edge habitat for nesting birds. According to the Maryland Department of Natural Resources, Wildlife and Heritage Service, "there are no State or Federal records for rare, threatened or endangered species within the boundaries of the project site as delineated" (April 4, 2007)

The upper portions of San Domingo Creek area recognized and mapped as a historic waterfowl concentration area. No water dependent facilities are planned for the proposed development.

SECTION THREE

Shoreline Development Buffer

As shown on the Subdivision Plat, a 100' Buffer has been placed from the mapped tidal wetlands that exist south of Canton Street and expanded to include the intermittent stream, nontidal wetlands and the nontidal wetlands buffers. The buffer encompasses the transition nontidal wetland areas. The emplacement of a 100' Development Buffer will provide protection for the tidal and nontidal wetlands and stream, there will be no impacts upon the Buffer within the scope of the proposed project site. The Buffer habitat zone for the site will be managed to protect and preserve the drainage area.

SECTION FOUR

Soil Erosion and Sedimentation Control Plan

The project will complete and obtain all necessary permits to ensure full and reasonable compliance with sediment and erosion control requirements. On

site storm water retention and managed infiltration of runoff and are to be designed to function for the entire development and overall site plan. Stormwater Ponds will serve the multiple functions of runoff collection and provide additional wetlands and aquatic habitats for the site.

SECTION FIVE Shore Protection Plan

There is no shoreline at the site. There are tidal wetlands mapped off site south of Canton Street. The 100' Critical Areas Buffer has been established and expanded to include the intermittent stream and wetlands.

SECTION SIX Stormwater, Floodplain and Tributary Stream Management Plan

- A. Stormwater Management: The proposed lots will be developed in accordance with the "2000 Maryland Stormwater Design Manual", Environmentally Sensitive Development Criteria (Chapter 5 – Stormwater Credits for Innovative Site Planning) and the 10% Rule. Deviation from these criteria shall require approval from the Department of Public works prior to any development activities.

- B. Floodplain Management Plan: Floodplains as mapped by FEMA are shown on the subdivision plat. New homes will be required to meet Federal elevation standards.

- C. Tributary Stream Management Plan: According to the U.S.G.S. 7.5 minute quadrangle for the subject site, (St. Michaels, MD), one "blue line" intermittent stream is indicated as present on the site. The "stream" as indicated on the plat originates off of the property and crosses the southern portions of the site. However, upon site inspection and as determined in the

field by Stark McLaughlin of Lane Engineering LLC, this area has been modified and altered. The past farming and land management practices including maintenance for drainage for improved and unimproved Town lots of record have changed the actual location and configuration of this drainage. Over decades of past farming activities on the land the drainage has been modified to accommodate the site usage.

Past usage appears to have been croplands and animal pens. The drainage areas have been either, filled in, relocated and/or ditched and excavated in accommodating maintenance for drainage for improved and unimproved Town lots of record. The "stream" is evident on recent and historic aerial photos only as ponded nontidal wetland extending from the woodlands to the outfall pipe at Canton Street. Tributary Streams are defined by the Town as "Those perennial and intermittent streams in the Critical Area which are so noted on the most recent U.S. Geological Survey 7 ½ minute topographic quadrangle maps (scale 1:24,000) or on more detailed maps and studies at the discretion of the Town" [Amended 5-10-1988 by Ord. No. 183;1-24-207 by Ord. No.350]. The more detail study of the stream has provided the location of the stream as survey located. Areas beyond the stream bed are classified as seasonal nontidal wetland drainage. The 100' stream buffer has been established from the survey located from the edge, top of bank where there is definition of the bank of the stream bed. The upper portions of the stream bed, off site, are defined by the excavated and ditched area, there after it becomes flat and indistinguishable. No development actives are proposed within the 100' buffer.

SECTION SEVEN

Nontidal Wetland Management Plan

As stated previously in **Section Two-C, Nontidal Wetlands**, there are several areas of nontidal wetlands located on the property. These areas are

clearly identified on the plat with the appropriate 25' buffers shown or are wholly within the 100' stream buffer. Buffers have been expanded as per recommendations and requirements from the Critical Areas Commission staff. A Joint Federal State Application #200762184 for the proposed impacts to the nontidal wetlands on the site has been filed with the Department of the Environment and a mitigation plan for any impacts will be prepared as part of the permitting process. Mitigation requirements will be provided by MDE.

SECTION EIGHT

Habitat Protection Plan

- A. Threatened and Endangered Species: On April 4, 2007, the Maryland Department of Natural Resources, Wildlife and Heritage Division were notified by correspondence. We requested that they review their Heritage Program to determine the presence of any threatened or endangered plant or wildlife species present on the site or within close proximity. On May 25, 2007, the Maryland Department of Natural Resources, Wildlife and Heritage Division, responded stating that "there are no State or Federal records for threatened or endangered species within the boundaries of the project site as delineated."

SECTION NINE

Forest Replacement Plan

The existing forest cover within the Critical Areas has been calculated to be 52,981 square feet or 38.83% of the site. The individual trees within the open lawn areas of the site have all been field located and surveyed. Each located tree was assigned a value of 400 square feet per tree. Sixty-three trees have been located for a total value of 25,200 square feet. The development plans will consider the location of individual trees and grouping of trees throughout the site. The final site plans will provide for the retention of many of the scattered trees located within the lawn areas when possible. Some level of

clearing will be required due to the size of the individual lots. The current design for the lots will require the removal of 28 trees. Therefore, a planting plan to provide additional forest cover is will be required to establish the forest on site to the 15% level. The forest and tree cover on the site is expected to increase due to the plantings of open space areas, street trees and possible mitigation of wetland impacts on the site. The forest cover after clearing and than replanting for mitigation and buffer establishment will be 31.4%. Specific landscape and planting plans will be developed to provide details as required.

Conclusion and Summary:

The proposed development activities will provide for the protection, maintenance and management of the existing drainage in this portion of the watershed. The impacts to the isolated nontidal wetlands will be adequately mitigated to result in no net loss of wetlands and creation of additional wetlands within the Critical Area. The residual forest and trees on the site will continue to provide watershed protection, shade, screening and habitat for mammals and edge species of birds. The Storm Water Management for the site will retain on site normal flows and provide infiltration of sediment free waters and treatment of on site and off site storm water where none has previously existed. The lot size and configuration of the lots will require the removal of many of the trees currently on the site. The size, location and condition of many of these trees may require their removals and planned replacements. Isolated large trees on this site may create a hazard due to wind and storm event. The planting of landscape trees more suited to the site conditions will provide adequate forest cover for the site. The site is well suited for the proposed development activities with the connection of Town utilities. The reconfigured lots comply with the current Town requirements and the number of proposed units, 9, will create a sense of community. The project should be a positive addition to St. Michaels.