APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 17-AUG-2018

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: CENAP-OP-R-2017-0093-24 Burke Motor Group CM

C. PROJECT LOCATION AND BACKGROUND INFORMATION: Block 132.01, Lot 28; 15.917 acres; 516 Stone Harbor Boulevard (northeast side of Stone Harbor Boulevard), between approximately 400 to 1,400 feet southeast of the Garden State Parkway.

State: New Jersey County/parish/borough: Cape May City: Middle Township

Center coordinates of site (lat/long in degree decimal format): Lat. 39.084184° **N**, Long. -74.812258° **W**.

Universal Transverse Mercator:

Name of nearest waterbody: Crooked Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Crooked Creek

Name of watershed or Hydrologic Unit Code (HUC): 02040302

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:

☒ Field Determination. Date(s): March 30, 2017

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

☒ Waters subject to the ebb and flow of the tide.

☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply): [1]

☒ TNWs, including territorial seas

☒ Wetlands adjacent to TNWs

☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs

☐ Non-RPWs that flow directly or indirectly into TNWs

☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

☐ Impoundments of jurisdictional waters

☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: linear feet: width (ft) and/or 1.045 acres.

Wetlands: 5.103 acres.

c. Limits (boundaries) of jurisdiction based on: **1987 Delineation Manual**

Elevation of established OHWM (if known): MHWL = 1.50' NAVD 88; HTL = 2.92' NAVD 88.

2. Non-regulated waters/wetlands (check if applicable):[3]

☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Five (5) discrete wetlands (E, F, G, H & I), man-created depressions within historic uplands, small in size (0.004 - 0.072 acre in size; totalling 0.159 acre), varying distances from tidal waters (i.e. MHWL) of Crooked Creek (325-725 feet)**.

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.

[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: **Crooked Creek (1.045 acres < MHWL)**.

Summarize rationale supporting determination: subject to ebb and flow of the tide.

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": **Tidal marsh (A, 3.834 acres); and three (3) separate man-createddepressions within historic uplands (B, C & D), 0.022 - 0.979 acre in size (total 1.269 acres), 100-300 feet from tidal waters (i.e. MHWL) of Crooked Creek. See additional discussion in Section IV below (Part B)**.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: **Pick List**
Drainage area: **Pick List**
Average annual rainfall: inches
Average annual snowfall: inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.
Project waters are **Pick List** river miles from RPW.
Project waters are **Pick List** aerial (straight) miles from TNW.
Project waters are **Pick List** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: .

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

Identify flow route to TNW[5]: .
Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: feet
Average depth: feet
Average side slopes: **Pick List.**

Primary tributary substrate composition (check all that apply):

☐ Silts	☐ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: .
Presence of run/riffle/pool complexes. Explain: .
Tributary geometry: **Pick List**
Tributary gradient (approximate average slope): %

(c) Flow:
Tributary provides for: **Pick List**
Estimate average number of flow events in review area/year: **Pick List**
Describe flow regime: .
Other information on duration and volume: .

Surface flow is: **Pick List.** Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☐ Bed and banks
☐ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: .
Identify specific pollutants, if known: .

[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
[6] A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7] Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is**: Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain: .
  - ☐ Ecological connection. Explain: .
  - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION (N/A)

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☒ TNWs: linear feet width (ft), Or, approx. 1.045 acres (< MHWL).
   - ☒ Wetlands adjacent to TNWs: approx. 5.103 acres (including tidal marsh (A) and non-tidal (B, C, D).

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

   Provide estimates for jurisdictional waters in the review area (check all that apply):
   - ☐ Tributary waters: linear feet width (ft).
   - ☐ Other non-wetland waters: acres.
     Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
   - ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional waters within the review area (check all that apply):

[8]See Footnote # 3.

☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☒ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  ☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☒ Wetlands: 0.159 acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Plan prepared by Gibson Associates, Dwg. No. 3237-D (one sheet), dated 12-29-11, last revised 07-12-18, entitled "PLAN OF SURVEY LOT 28, BLOCK 132.01 …".
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  ☒ Office concurs with data sheets/delineation report.
  ☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☐ U.S. Geological Survey Hydrologic Atlas: .
  ☐ USGS NHD data.
  ☐ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: Stone Harbor, 1:24,000.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: Cape May, Sheet 21.
☒ National wetlands inventory map(s). Cite name: U.S. FWS web site.
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): Google Earth, various dates.
  or ☒ Other (Name & Date): Agent report, ground photos undated; Corps ground photos March 30, 2017.
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: See CENAP-OP-R Memorandum for Record dated 10 May 2018 (revised 17 August 2018), and SWANCC Information Sheet with supporting information.

INFORMATION SHEET
DETERMINATIONS OF NO JURISDICTION FOR ISOLATED, NON-NAVIGABLE, INTRA-STATE WATERS RESULTING FROM U.S. SUPREME COURT DECISION IN SOLID WASTE AGENCY OF NORTHERN COOK COUNTY V. U.S. ARMY CORPS OF ENGINEERS

DISTRICT OFFICE: Philadelphia

FILE NUMBER: CENAP-OP-R-2017-0093-24

REGULATORY PROJECT MANAGER: James Boyer, Ph.D. Date: 17-AUG-2018

PROJECT REVIEW/DETERMINATION COMPLETED: In the office N (Y/N) Date:
At the project site Y (Y/N) Date: 3/30/2017

PROJECT LOCATION INFORMATION:

State: New Jersey

County: Cape May

Center coordinates of site by latitude & longitudinal coordinates: 39.084184 North / -74.812258 West

Approximate size of site/property (including uplands & in acres): 15.917

Name of waterway or watershed: Crooked Creek

SITE CONDITIONS:

Type of aquatic resource[1]	0-1 ac	1-3 ac	3-5 ac	5-10 ac	10-25 ac	25-50 ac	> 50 ac	Linear feet	Unknown
Lake	☐	☐	☐	☐	☐	☐	☐	☐	☐
River	☐	☐	☐	☐	☐	☐	☐	☐	☐
Stream	☐	☐	☐	☐	☐	☐	☐	☐	☐
Dry Wash	☐	☐	☐	☐	☐	☐	☐	☐	☐
Mudflat	☐	☐	☐	☐	☐	☐	☐	☐	☐
Sandflat	☐	☐	☐	☐	☐	☐	☐	☐	☐
Wetlands	☒	☐	☐	☐	☐	☐	☐	☐	☐
Slough	☐	☐	☐	☐	☐	☐	☐	☐	☐
Prairie pothole	☐	☐	☐	☐	☐	☐	☐	☐	☐
Wet meadow	☐	☐	☐	☐	☐	☐	☐	☐	☐
Playa lake	☐	☐	☐	☐	☐	☐	☐	☐	☐
Vernal pool	☐	☐	☐	☐	☐	☐	☐	☐	☐
Natural pond	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other water (identify type) _____	☐	☐	☐	☐	☐	☐	☐	☐	☐

[1]Check appropriate boxes that best describe type of isolated, non-navigable, intra-state water present and best estimate for size of non-jurisdictional aquatic resource area.

Migratory Bird Rule Factors[1]:	If Known		If Unknown Use Best Professional Judgment		
	Yes	No	Predicted to Occur	Not Expected to Occur	Not Able To Make Determination
Is or would be used as habitat for birds protected by Migratory Bird Treaties?	☐	☐	☐	☒	☐
Is or would be used as habitat by other migratory birds that cross state lines?	☐	☐	☐	☒	☐
Is or would be used as habitat for endangered species?	☐	☒	☐	☐	☐
Is used to irrigate crops sold in interstate commerce?	☐	☒	☐	☐	☐

[1]Check appropriate boxes that best describe potential for applicability of the Migratory Bird Rule to apply to onsite, non-jurisdictional, isolated, non-navigable, intra-state aquatic resource area.

TYPE OF DETERMINATION: Preliminary ☐ Or Approved ☒ .

ADDITIONAL INFORMATION SUPPORTING NJD (e.g., paragraph 1 – site conditions; paragraphs 2-3 – rationale used to determine NJD, including information reviewed to assess potential navigation or interstate commerce connections; and paragraph 4 – site information on waters of the U.S. occurring onsite):

SITE CONDITIONS

1. Background Information:

a. The property is an approximately 16-acre parcel, which consists of developed area (car dealership with associated paved and gravel parking areas), wooded areas and tidal marsh. The tidal marsh (designated WA) on the northern and western sides of the property (and within the property limits) includes the tidal waters of Crooked Creek, which is part of a large tidal waters and wetland complex. Crooked Creek joins Nichols Channel and Dung Thorofare between Jenkins Sound and Great Channel. Great Channel is connected to the Atlantic Ocean via Hereford Inlet to the south, and by a more circuitous route to Townsends Inlet to the north. Outside the tidally-influenced area, most of the undeveloped portion of the property is upland forest. Within this upland forest, there are eight (8) separate freshwater wetland areas as delineated by the applicant's consultant (WB through WI). These areas are clearly man-excavated shallow depressions, which originated from attempts at borrow pits for the construction of Stone Harbor Boulevard (according to the consultant). Those borrow operations appear to have been terminated following several shallow excavations. There are much larger water-filled borrow pits on the south side of the boulevard, where they apparently obtained most of the material for the roadway (see separate JD file CENAP-OP-R-2001-0170-57).

b. The property survey indicates the MHW line at 1.50', with the HTL at 2.92'. All elevations are NAVD 88. The tidal and tidally influenced wetlands on the northern and western sides of the parcel (Wetland A) lie mostly at an elevation generally between 1 and 3 feet, with the flagged and surveyed tidal wetland limit generally near the 4-foot contour. The undeveloped upland (forest) areas on the property are generally at elevations of 4-10 feet, with a small high spot up to 13 feet. The developed parcels along Stone Harbor Boulevard are around 10-12 feet elevation. The excavated depressional wetlands all have bottom elevations down to about 4-5 feet.

c. Topographically, the non-tidal portion of the property is part of an old alluvial terrace at an elevation above tidal influence. Based upon the topography and the soil drainage classification (well and moderately well drained), it is unlikely that this area supported wetlands prior to disturbance. U.S.G.S. topographic maps show this area at an elevation up to around 10 feet from the 1800s to the present. U.S.G.S. maps from 1955 and 1972 identify the specific site as a "gravel pit." This alluvial terrace extends along the Garden State Parkway right-of-way from south of Mayville to just south of Holmes Creek. The terrace is interrupted by drainage from several tidal creeks, the largest being Crooked Creek. No evidence was observed supporting a current or previous connection by Wetlands B-I to Crooked Creek or any other tidal or non-tidal waters.

d. In the Soil Survey for Cape May County, Sheet 21 (1973 aerial photography), the area both north and south of Stone Harbor Boulevard is designated as "borrow pit."

e. The NWI mapping on the U.S. Fish and Wildlife Service web site does not identify any wetlands outside Crooked Creek (E1UB) and the indicated tidal wetlands (E2EM).

f. Aerial photos going back to 1956 show the site (except for the development) in a somewhat similar condition as present. The 1931 aerial, while not good quality, is also similar.

2. Field Observations:

On 30 March 2017, the undersigned conducted a site inspection together with the applicant's consultant, Mr. Peter Lomax of The Lomax Consulting Group, LLC. All delineated wetland boundaries were accurate as flagged in the field and shown on the survey plan. The wetland limits were obvious and easily observed with the sharp topographic breaks, both between the tidally-influenced wetlands and uplands, and between the man-made (excavated) wetlands and uplands. None of the non-tidal wetlands have any surface drainage connection to the tidal system.

a. Wetland A is tidal marsh, including the tidally flowed waters of Crooked Creek. A previous survey excluded "riparian claim areas" from the total property acreage (16.038 acres). The surveyor indicated 3.955 acres as the total area of Wetland A. The riparian claim area is presumed to be an approximation of tidally-influenced open water area. Based on the 1.045 acres subtracted from the original site acreage (16.038), this would be 1.045 acres. That area, combined with a revised area of 3.834 acres for Wetland A (4.879 acres) represents the total area of tidally-influenced waters and wetlands waterward of wetland line "WA." Since wetland line WA is landward of the indicated high tide line (HTL), it represents the landward extent of Section 404 jurisdiction for the tidally-influenced areas (contiguous with tidal waters). The mean high water line (MHWL) is shown on the plan as the Section 10 jurisdictional limit.

b. Wetland B is a 0.979-acre depressional wetland, roughly 80-120 feet wide and about 500 feet long. Much of it is dominated mainly by Phragmites australis, with some trees, shrubs and green briar (Smilax) around the outer (higher) portion. Some portions were ponded, mainly in the center lower portions. At its closest point, it is about 300 feet from the MHWL of Crooked Creek. In aerial photos, there appears to be an off-site tidal ditch within the tidal marsh that is only about 200 feet from this wetland. At this closest point, there is a narrow (50-60 feet) break between this wetland and Phragmites-dominated wetlands that are contiguous with the tidally-influenced wetlands. The break between the two wetlands is very subtle, with probably a foot or less of elevation rise between the two.

c. Wetland C is 0.268 acre in size. It is roughly 90-100 feet wide by about 150 feet long. It is about 100 feet from the MHWL of Crooked Creek at its closest point. It is separated from the tidal marsh by about a 35-foot-wide upland break. It is dominated by trees (including red maple, Acer rubrum) and shrubs (including highbush blueberry, Vaccinium corymbosum) with a scrubby, tangled understory including green briar (Smilax).

d. Wetland D (0.022 acre) has some trees but not much shrubby understory. It is roughly 25 by 40 feet in size. It is about 125 feet from the MHWL of Crooked Creek at its closest point. It is separated from the tidal marsh by about a 20-foot wide upland break.

e. Wetland E (0.004 acre) is approximately 15 by 15 feet. It is a shallow depression with some trees (including black gum, Nyssa sylvatica) and shrubs and vines (including Vaccinium and Smilax) within the surrounding upland forest. It is about 330 feet from the MHWL of Crooked Creek. The intervening upland area between this wetland and the tidal marsh system is about 250 feet. Those uplands are generally about 2-3 feet higher in elevation than the wetland (and 3-4 feet above the tidal marsh).

f. Wetland F (0.026 acre) is about 25 by 40 feet in size. It is an obvious excavated area, with some mature trees (including Acer and Nyssa) and some shrubby understory (including Vaccinium). It is about 380 feet from the MHWL of Crooked Creek. There are about 300 feet of intervening uplands between this wetland and the tidal marsh system. Those uplands are generally about 2-3 feet higher in elevation than the wetland (and 3-4 feet above the tidal marsh).

g. Wetland G (0.026 acre) is about 25 by 40 feet in size, with trees and shrubs, similar to E and F. It is about 325 feet from the MHWL of Crooked Creek. There are about 250 feet of intervening uplands between this wetland and the tidal marsh system. Those uplands are generally about 2-5 feet higher in elevation than the wetland (and 3-6 feet above the tidal marsh).

h. Wetland H (0.031 acre) is about 20-30 feet wide, and about 60 feet long. It abuts a retaining wall on the developed property. It has some trees, shrubs and green briar (Smilax), and a small area of standing water. It is about 550 feet from the MHWL of Crooked Creek. There are about 500 feet of intervening uplands between this wetland and the tidal marsh system, including the developed portion of the property. Those uplands are up to 7-8 feet higher in elevation than the wetland (and up to 8-9 feet above the tidal marsh).

i. Wetland I (0.072 acre) is roughly 60 by 70 feet in size. It is separated from Wetland B by a narrow (5-10 feet wide) berm. The lowest portions (in the center) were ponded, with some trees, shrubs, green briar (Smilax) and Phragmites around the outer portion. It is about 725 feet from the MHWL of Crooked Creek. There are over 600 feet of intervening uplands between this wetland and the tidal marsh system. Those uplands are up to 4-5 feet higher in elevation than the wetland (and up to 5-6 feet above the tidal marsh).

3. Recommendation as to Adjacency:

As noted above, Wetland A is tidal marsh. It is contiguous with the tidally-flowed waters of Crooked Creek. As such, no further discussion of adjacency is necessary for this area.

All the non-tidal, non-contiguous, non-abutting wetlands on the property originated as excavations from a borrow pit operation, or at least attempts at borrow operations. Those borrow operations appear to have been terminated following several shallow excavations. There are larger, deeper, water-filled borrow-pit ponds on the other side of Stone Harbor Boulevard.

Topographically, this area was an alluvial terrace at an elevation above tidal influence and, based upon the topography and the soil drainage classification (well and moderately well drained), it was unlikely to have supported wetlands prior to disturbance. No evidence was observed supporting a current or previous connection by these wetlands to Crooked Creek or any other tidal or non-tidal waters.

The intervening elevations and distances between the various man-made non-tidal depressional wetlands vary widely. Wetlands C and D are the closest to the MHWL of Crooked Creek (around 100 feet), and are separated from the HTL and limit of the tidal marsh by only 20-35 feet of uplands. These forested wetlands are not similar in nature to the tidal wetlands, they have no obvious hydrologic connection (precipitation and groundwater driven versus tidally flowed), and they have no obvious habitat interrelationship. However, as per 2008 joint Corps-EPA guidance, they are close enough in proximity to infer that they have an ecological interconnection with the adjacent tidally-flowed channel and wetland system.

Wetland B is somewhat farther from the MHWL of Crooked Creek (around 300 feet), which is mainly due to the fact that the channel happens to curve away from the uplands at that point along the property. This wetland is very similar (and in close proximity) to wetlands just off the property, that are contiguous with and abutting the tidal marsh system. Both are a mix of Phragmites and scrub-shrub with green briar or Smilax. The break between this wetland and a similar wetland that grades directly down to the tidal marsh is only about 50-60 feet. There is very little elevation difference between them (a foot or less), and the break between uplands and wetlands is subtle. Some aerial photos show what appears to be a remnant tidal ditch closer to this wetland than the actual main channel of Crooked Creek. With the low elevation break between the off-site Phtagmites wetlands (contiguous with the tidal marsh) and this non-tidal wetland (around a 4-foot bottom elevation, compared with the HTL at 3 feet NAVD 88), this wetland likely

receives regular over-wash from the tidal system during storms and very high tidal events, depending on winds. Based on its relatively large size (approximately 1 acre), similar nature and habitat to the contiguous wetlands, and potential for hydrologic relationship via likely storm wash, as well as its proximity to the tidal system, this wetland is adjacent to the waters of Crooked Creek.

Wetlands E, F, G, H and I are similar in: a) nature; b) size; c) distance from tidal waters; and d) intervening upland elevations. These wetlands are farther from the tidally-flowed waters of Crooked Creek, and they have greater distances of intervening uplands between them and the tidal wetland system, as compared with Wetlands B, C and D. They are generally smaller in size as well. These wetlands have been determined to be isolated, and not adjacent to Crooked Creek, based on: a) the distances from the tidal waters (325 to 725 feet); b) the intervening natural uplands lying between them and the tidal wetland system (250 to 600 feet); c) their man-made nature; and d) the complete lack of any hydrologic or habitat inter-relationships between them and the tidal system.

4. Navigation:

The only navigable waters are the tidally flowed waters of Crooked Creek.

5. Nexus to Interstate Commerce:

Based upon observations during the site inspection:

a. None of the isolated wetlands contain fish or shellfish, as any ponded areas were limited, and probably not persistent through the warmer seasons. As such, it is unlikely that fish or shellfish would be taken from any of the isolated wetlands. Similarly, recreational use, including hunting or fishing, within this private property, situated directly behind commercial properties, would not be expected.

b. There is no industrial or commercial use of the isolated wetlands, nor is there reasonable expectation for such a use to develop given the nature of the area.

c. There is potential use of the isolated wetlands as a borrow pit, given their past use as such. However, it appears that the excavations that created the wetlands were primarily exploratory in nature, as the large water-filled borrow pits on the south side of Stone Harbor Boulevard were selected, while these areas were not.

d. There is no use of the isolated wetlands for irrigation of crops nor is there a reasonable expectation of exploiting them for the production of timber or fiber products.

g. There are no known uses of the property for educational or scientific purposes that would generate expenditures across state lines.

6. Recommended Finding:

a. Wetland A, including the tidally flowed waters of Crooked Creek, is regulated as a Water of the U.S. The wetlands are contiguous with the tidally-flowed waters.

b. Non-tidal Wetlands B, C and D are regulated as Waters of the U.S. They are adjacent to the tidally flowed waters of Crooked Creek. While not contiguous with those tidal waters, they are neighboring based on the relatively narrow uplands (and tidal wetlands) that separate them from the tidally-flowed waters.

c. Non-tidal Wetlands E, F, G, H and I are isolated. They have no surface connection to a Water of the U.S. and show no evidence of ever having such a connection in the past. They are not navigable in fact, and they do not have a nexus to Interstate Commerce. These wetlands were not historically part of any known wetland system. Rather, they are man-made features created from excavation activities within uplands. They are not adjacent to (i.e. "bordering, contiguous, or neighboring") any Waters of the U.S. (per 33 CFR 328.3). Therefore, they are not subject to regulation by the U.S. Army Corps of Engineers.

WATERS OF THE UNITED STATES

7. Site Information on Waters of the U.S. Occurring Onsite:

Crooked Creek is subject to the ebb and flow of the tide (i.e. navigable waters), and Wetland A is tidal marsh. It is contiguous with the tidally-flowed waters of Crooked Creek.

The intervening elevations and distances between the various man-made non-tidal depressional wetlands vary widely. Wetlands C and D are the closest to the MHWL of Crooked Creek (around 100 feet), and are separated from the HTL and limit of the tidal marsh by only 20-35 feet of uplands. These forested wetlands are not similar in nature to the tidal wetlands, they have no obvious hydrologic connection (precipitation and groundwater driven versus tidally flowed), and they have no obvious habitat interrelationship. However, as per 2008 joint Corps-EPA guidance, they are close enough in proximity to infer that they have an ecological interconnection with the adjacent tidally-flowed channel and wetland system.

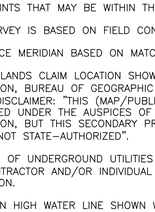
Wetland B is somewhat farther from the MHWL of Crooked Creek (around 300 feet), which is mainly due to the fact that the channel happens to curve away from the uplands at that point along the property. This wetland is very similar (and in close proximity) to wetlands just off the property, that are contiguous with and abutting the tidal marsh system. Both are a mix of Phragmites and scrub-shrub with green briar or Smilax. The break between this wetland and a similar wetland that grades directly down to the tidal marsh is only about 50-60 feet. There is very little elevation difference between them (a foot or less), and the break between uplands and wetlands is subtle. Some aerial photos show what appears to be a remnant tidal ditch closer to this wetland than the actual main channel of Crooked Creek. With the low elevation break between the off-site Phtagmites wetlands (contiguous with the tidal marsh) and this non-tidal wetland (around a 4-foot bottom elevation, compared with the HTL at 3 feet NAVD 88), this wetland likely receives regular over-wash from the tidal system during storms and very high tidal events, depending on winds. Based on its relatively large size (approximately 1 acre), similar nature and habitat to the contiguous wetlands, and potential for hydrologic relationship via likely storm wash, as well as its proximity to the tidal system, this wetland is adjacent to the waters of Crooked Creek.

GENERAL NOTES:

1. BEING A PORTION OF TAX LOT 28 IN TAX BLOCK 132.01 AS SHOWN ON THE MIDDLE TOWNSHIP TAX MAP SHEET No. 43 DATED APRIL, 2004, REVISED THROUGH NOVEMBER, 2007, CAPE MAY COUNTY, NEW JERSEY. ALSO BEING A PORTION OF THE SAME PREMISES AS DESCRIBED IN DEED DATED DECEMBER 29, 2011 AND RECORDED IN THE CAPE MAY COUNTY CLERK'S OFFICE ON DECEMBER 29, 2011 IN 3478, PAGE 649, SUBJECT TO THE PARAMOUNT RIGHTS OF THE STATE OF NEW JERSEY OVER LANDS NOW OR FORMERLY LOCATED BELOW THE MEAN HIGH WATER LINE OF CROOKED CREEK AND ALL LANDS CLAIMED BY THE N.J.D.E.P. BUREAU OF TIDELANDS MANAGEMENT, WHICHEVER IS LOCATED FURTHER UPLAND (SEE NOTE 8). EXEMPTING THEREOUT AND THEREFROM A PORTION ALONG STONE HARBOR BOULEVARD KNOWN AS PARCEL 4606 AS DESCRIBED IN DEED BOOK 3583, PAGE 646.
2. THIS SURVEY IS MADE SUBJECT TO ANY RIGHTS, RESTRICTIONS, EASEMENTS, RIGHT OF WAY, EXCEPTIONS, OR COVENANTS THAT AN ACCURATE AND CURRENT TITLE REPORT MAY DISCLOSE.
3. THIS SURVEY DOES NOT NECESSARILY LOCATE AND/OR DELINEATE ALL MAPPED OR UNMAPPED REGULATED ENVIRONMENTAL CONSTRAINTS THAT MAY BE WITHIN THE JURISDICTIONAL LIMITS OF FEDERAL, STATE, AND/OR LOCAL REGULATORY AGENCIES.
4. THIS SURVEY IS BASED ON FIELD CONDITIONS AS OF NOVEMBER 20, 2017.
5. REFERENCE MERIDIAN BASED ON MATCHING THE BEARING SYSTEM FROM DEED BOOK 1632, PAGE 538.
6. THE TIDELANDS CLAIM LOCATION SHOWN ON THIS SITE WAS OBTAINED FROM THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION, BUREAU OF GEOGRAPHIC INFORMATION SYSTEMS DIGITIZED DATA FILES (CD ROM) WHICH REQUIRES THE FOLLOWING CREDIT/DISCLAIMER: "THIS (MAP/PUBLICATION/REPORT) WAS DEVELOPED USING GEOGRAPHIC INFORMATION SYSTEM DIGITAL DATA DEVELOPED UNDER THE AUSPICES OF BUREAU OF TIDELANDS MANAGEMENT, NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION, BUT THIS SECONDARY PRODUCT HAS NOT BEEN VERIFIED BY NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND IS NOT STATE-AUTHORIZED".
7. LOCATION OF UNDERGROUND UTILITIES HAVE NOT BEEN INVESTIGATED AS PART OF THIS SURVEY. IT SHALL BE THE RESPONSIBILITY OF ANY CONTRACTOR AND/OR INDIVIDUAL TO DETERMINE THE EXACT LOCATION OF ANY AND ALL SUBSURFACE UTILITIES PRIOR TO ANY EXCAVATION.
8. THE MEAN HIGH WATER LINE SHOWN WAS LOCATED ONLY ON A PORTION OF THE SITE PER AGREEMENT WITH THE CLIENT. THE TIDELAND CLAIM LIMIT IS UTILIZED AS ESTABLISHING THE UPLAND LIMITS OF THE SITE AT THE LOCATIONS WHERE THE MEAN HIGH WATER LINE WAS NOT LOCATED OR WHERE THE MEAN HIGH WATER LINE IS LOCATED OUTSHORE OF THE MAPPED TIDELANDS CLAIM LINE AND IS SUBJECT TO CHANGE BASED ON A FIELD DELINEATED MEAN HIGH WATER LINE LOCATION ON THE REMAINING PORTION OF THE SITE OR N.J.D.E.P. BUREAU OF TIDELANDS VERIFICATION OF THE EXTENT OF THE CLAIM LIMIT.
9. POINTS WA-1 TO WA-30, WB-1 TO WB-29, WC-1 TO WC-13, WD-1 TO WD-5, WE-1 TO WE-4, WF-1 TO WF-5, WG-1 TO WG-5, WH-1 TO WH-6 AND WI-1 TO TO WI-10 SHOWN INDICATE FLAGGED FRESHWATER WETLANDS LIMITS AS DELINEATED BY THE LOMAX CONSULTING GROUP AND LOCATED IN THE FIELD BY GIBSON ASSOCIATES, P.A. ON APRIL 21, 2011.
10. LIMITS OF FRESHWATER WETLANDS SHOWN WERE VERIFIED BY THE N.J.D.E.P. REFER TO AMENDMENT TO FRESHWATER WETLANDS LETTER OF INTERPRETATION/LINE VERIFICATION ISSUED BY THE N.J.D.E.P. ON SEPTEMBER 29, 2011 (FILE No. 0506-09-0072.1-FWW 110001).
11. THE LOCATION OF THE MEAN HIGH WATER LINE SHOWN ON THIS PLAN IS BASED ON PUBLISHED TIDAL DATUM INFORMATION PROVIDED BY THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION (N.J.D.E.P.) TIDELANDS MANAGEMENT PROGRAM AND THE NEW JERSEY GEOLOGICAL SURVEY (N.J.G.S.). THE REFERENCE TIDE STATION IS No. 853-5581, STONE HARBOR, GREAT CHANNEL, NEW JERSEY.
12. MEAN HIGH WATER LINE SHOWN WAS FIELD LOCATED BY GIBSON ASSOCIATES, P.A. ON APRIL 18, 2011 AND VERIFIED ON NOVEMBER 20, 2017 AND IS BASED ON ELEVATION 1.50 (N.A.V.D. 1988). MEAN HIGH WATER ELEVATION AT STATION 853-5581 WAS CONVERTED FROM MEAN LOWER LOW WATER DATUM TO N.A.V.D. 1988 TO DERIVE ELEVATION 1.50 (N.A.V.D. 1988) AS THE MEAN HIGH WATER ELEVATION.
13. THE DEPT. OF THE ARMY HIGH TIDE LINE WAS FIELD LOCATED BY GIBSON ASSOCIATES, P.A. ON NOVEMBER 20, 2017 AND IS BASED ON ELEV 2.92 (N.A.V.D. 1988) WHICH IS THE ELEVATION OF THE PROJECTED HIGHEST TIDE OCCURING DURING THE PERIOD OF OCTOBER 30, 2017 TO OCTOBER 30, 2018 PROJECTED TO OCCUR ON JULY 13, 2018 AT ELEV. 5.58 (MEAN LOWER LOW WATER DATUM) AND CONVERTED TO N.A.V.D. 1988 TO DERIVE ELEV. 2.92 (N.A.V.D. 1988) AS THE DEPT. OF THE ARMY HIGH TIDE LINE.
14. SURVEY REFERENCES:
    - A. DEED DATED MARCH 26, 1986 AND RECORDED IN THE CAPE MAY COUNTY CLERK'S OFFICE ON MARCH 27, 1986 IN DEED BOOK 1632, PAGE 543.
    - B. DEED DATED MARCH 26, 1986 AND RECORDED IN THE CAPE MAY COUNTY CLERK'S OFFICE ON MARCH 27, 1986 IN DEED BOOK 1632, PAGE 538. (RE-RECORDED IN DEED BOOK 1635, PAGE 840).
    - C. ATLANTIC CITY ELECTRIC COMPANY EASEMENT DATED JUNE 13, 1996 AND RECORDED IN THE CAPE MAY COUNTY CLERK'S OFFICE ON AUGUST 19, 1996 IN DEED BOOK 1682, PAGE 140.
    - D. CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY SEWER RIGHT OF WAY/EASEMENT DATED OCTOBER 05, 1990 AND RECORDED IN THE CAPE MAY COUNTY CLERK'S OFFICE ON NOVEMBER 07, 1990 IN DEED BOOK 2096, PAGE 342.
    - E. DEED DATED DECEMBER 29, 2011 AND RECORDED IN THE CAPE MAY COUNTY CLERK'S OFFICE ON DECEMBER 29, 2011 IN DEED BOOK 3478, PAGE 649.
    - F. DECLARATION OF TAKING DATED APRIL 08, 2014 AND RECORDED IN THE CAPE MAY COUNTY CLERK'S OFFICE ON JUNE 12, 2014 IN DEED BOOK 3583, PAGE 646.
15. THIS SURVEY IS NOT INTENDED TO BE USED FOR MORTGAGE OR CONVEYANCE PURPOSES.
16. COORDINATE VALUES SHOWN BASED ON NEW JERSEY STATE PLANE COORDINATE SYSTEM (N.A.D. 1983).

LEGEND:

- VINYL FENCE
- WOOD FENCE
- CHAIN LINK FENCE
- PROPERTY LINE
- CONCRETE
- X-CUT SET
- X-CUT FOUND
- CM FOUND
- CM SET
- CM TO BE SET
- I.P. FOUND
- I.P. SET
- I.P. TO BE SET
- WOODS LINE
- TREE
- INLET
- CONC. CURB
- DEPRESSED CONC. CURB
- EDGE OF PAVEMENT
- UTILITY POLE
- ROAD/TRAFFIC SIGN
- OVERHEAD WIRE
- UTILITY MARKOUTS:
  - SANITARY SEWER
  - WATER
  - GAS
- P.O.B. POINT OF BEGINNING
- P.C. POINT OF CURVATURE
- P.T. POINT OF TANGENCY
- X.XX EXISTING SPOT ELEVATION
- (Lot X) OLD LOT NUMBERS
- A-X WETLANDS FLAG
- LIGHT POLE
- WETLANDS
- DEPT. OF THE ARMY HIGH TIDE LINE
- LATH SET



DETAIL A
N.T.S.

COURSES ALONG STONE HARBOR BOULEVARD:

COURSE	BEARING	DISTANCE
(1)	S 44° 50' 00" E	21.90'
(2)*	RADIUS=4762.00'	69.12'
(3)	N 45° 10' 00" E	5.00'
(4)*	RADIUS=4767.00'	188.12'
(5)	S 37° 21' 59" E	181.52'
(6)*	RADIUS=4846.00'	11.78'

* CURVE	RADIUS	DELTA ANGLE	LENGTH	CHORD BEARING	CHORD LENGTH
(2)	4762.00'	00° 49' 54"	69.12'	S 44° 25' 03" E	69.12'
(4)	4767.00'	02° 15' 40"	188.12'	S 42° 52' 19" E	188.11'
(6)	4846.00'	00° 08' 21"	11.78'	S 41° 43' 15" E	11.78'

07-12-18

PRELIMINARY: FOR CLIENT'S REVIEW AND APPROVAL

PLAN OF SURVEY

0 25 50 100 150 200 250 FEET

SCALE 1" = 50'

DATE	REVISIONS
07-12-18	ADDRESS ACOE COMMENTS DATED 06-18-18
12-05-17	UPDATE SURVEY, ADD DEPT. OF THE ARMY HIGH TIDE LINE
02-06-12	UPDATE WETLANDS LINES PER N.J.D.E.P. L.O.I. FILE No. 0506-09-0072.1 FWW110001 DATED 09/29/11

PREPARED BY:

MARK J. GIBSON
LICENSED PROFESSIONAL LAND SURVEYOR
N.J.P.L.S. LICENSE No. 32115

GIBSON ASSOCIATES, P.A.
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522 SEA ISLE BOULEVARD
OCEAN VIEW, NEW JERSEY 08230
(609) 624-1944

PLAN OF SURVEY
LOT 28, BLOCK 132.01
MIDDLE TOWNSHIP
CAPE MAY COUNTY, NEW JERSEY

DRAWN: JJS | CHECKED: WPF/MJG | DATE: 12-29-11 | SCALE: 1" = 50' | SHEET 1 OF 2 | DWG. No. 3237-D

F2966-3237-D(07-12-18)R3.DWG BOOK 38 PAGE 12 X-Ref: F1634, 2667 File No. 2966